Ministry of Agriculture,
Palestinian Authority

The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Project Completion Report

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Japan International Cooperation Agency (JICA)

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The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Project Completion Report

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Abbreviations

AI	:	Artificial Insemination
ASAP	:	The Project for Strengthening Support System Focusing on Sustainable Agriculture (Agricultural Support Assist Project)
AtoZ	:	A to Z
COVID-19	:	Coronavirus Disease 2019
C/P	:	Counterpart
DOA	:	Directorate of Agriculture
DVS	:	Directorate of Veterinary Service
EC	:	Electrical Conductivity
EP	:	Extension Package
EU	:	Extension Unit
EVAP-1	:	Extension for Value-Added Agriculture Project
EVAP-2		The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)
FAO	:	Food and Agriculture Organization
FY	:	Fiscal Year
GAP	:	Good Agricultural Practices
GD	:	General Directorate
GDoERD	:	General Directorate of Extension and Rural Development
GDP	:	Gross Domestic Product
GS	:	Gaza Strip
HH	:	Households
ISMAP	:	Improving Small-Scale Farmers' Market-Oriented Agriculture Project
JA	:	Japan Agricultural Cooperatives
JAS	:	Japanese Agricultural Standard
JCC	:	Joint Coordinating Committee
JICA	:	Japan International Cooperation Agency
IPM	:	Integrated Pest Management
IT	:	Information Technology
MOA	:	Ministry of Agriculture
MOFP	:	Ministry of Finance and Planning
MOL	:	Ministry of Labour
MS	:	Monitoring Sheet
NARC	:	National Agriculture Research Center
NGO	:	Non-governmental Organization
NIS	:	New Israeli Shekel
OCHA	:	UN Office for the Coordination of Humanitarian Affairs

PCBS	:	Palestinian Central Bureau of Statistics
PDM	:	Project Design Matrix
PNAES	:	Palestine National Agricultural Extension Strategy
PO	:	Plan of Operations
PSI	:	Palestine Standards Institution
Q&A	:	Question and Answer
SDGs	:	Sustainable Development Goals
SHEP	:	Smallholder Horticulture Empowerment and Promotion
SMS	:	Subject Matter Specialist
SNS	:	Social Networking Service
TF	:	Task Force
TICAD	:	Tokyo International Conference on African Development
TOT	:	Training of Trainers
TZ	:	-
WB	:	West Bank
4WD	:	Four Wheel Drive

Unit

dunum	: 1 dunum = 1,000m^2 = 10a = 0.1ha

Currency Conversion Rate

NIS/ILS 1.0 = JPY 36.671300
USD 1.0 = JPY 114.674000

NIS/ILS: New Israeli Shekel/ Israeli Shekel
JPY: Japanese Yen
USD: United States of America Dollar

Source JICA's Exchange Rate for January 2022

Chapter 1 Outline of the Project

1-1 Background

Through "Project on Improved Extension for Value-Added Agriculture in the Jordan River Rift Valley (EVAP-1)" (September 2011 - July 2015), JICA has supported the Ministry of Agriculture (MOA) to improve the quality of agricultural extension services and provide guidance for extension officers on market-oriented agriculture. In the project, "EVAP Extension Package" which include a series of extension activities for farmers were prepared. The MOA highly evaluated this Package and planned to apply it for whole area of Palestine. In order to expand agricultural technologies to wider range of farmers, it is required to improve this Package with understanding detailed actual conditions of farmers and their groups and introducing further opportunities to enhance farmers' awareness and motivations. Particularly, it is necessary to improve this Package with utilizing SHEP Approach and considering gender aspects in accordance with local situations.



A small-scale farmer supported by EVAP-2 in Jericho



A small-scale farmer supported by EVAP-2 in Salfit

In this regard, the Palestinian Authority (PA) requested Japanese government to provide technical supports for strengthening capacities of concerned officials of MOA on agricultural extension activities in order to expand the "EVAP Extension Package" to the entire area of Palestine. JICA had a series of discussions with concerned officials of the PA at the Detailed Planning Survey and both parties agreed the framework of "The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2, hereinafter, it is referred to as EVAP-2.)".



Extension activities that connect farmers with market information and promote farmers' awareness at Bethlehem wholesale market

1-2 Objective and scope

Objective, scope and activities of the EVAP-2 are shown in the following figure. Project Purpose is "In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen by the Improved EVAP Extension Package" and the duration of the Project is 60 months (from July 2016 to August 2021).

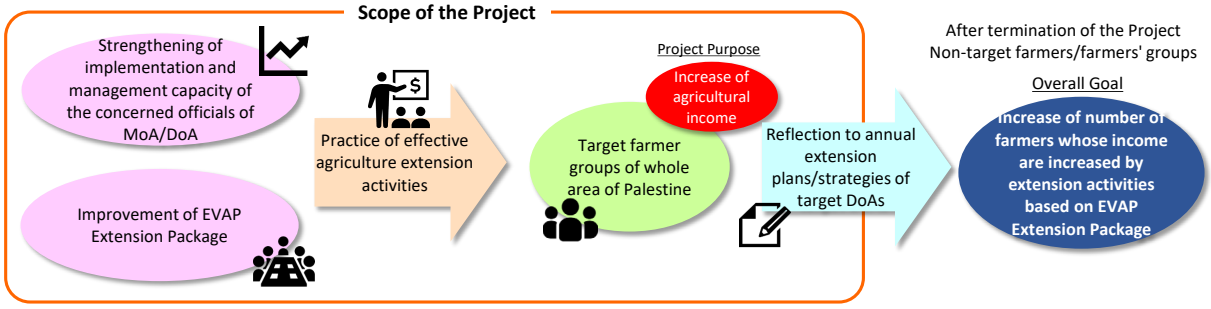


Figure 1-1 Objective and scope of EVAP-2

1-3 Outputs and activities

Outputs and activities of the Project are shown in the following figure and summary of the project activities are shown in Attachment 1-1.

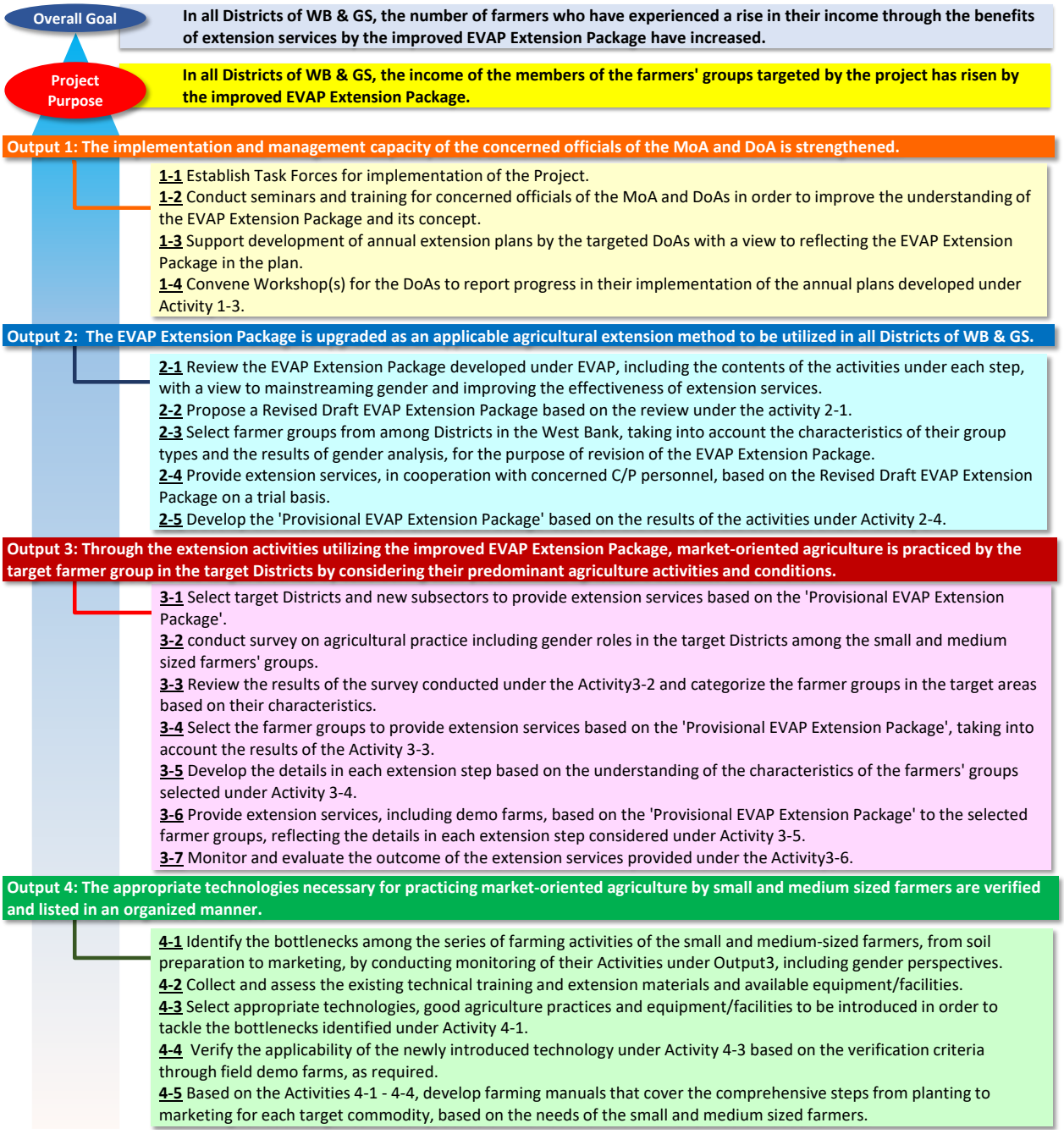


Figure 1-2 Outputs and activities of the project

1-4 Major concepts of the project activities

For the purpose of developing the agricultural extension system for market-oriented agriculture, EVAP-2 has incorporated measures related to “motivate farmers before technical trainings”, “agriculture as business”, and “autonomy, competence and relatedness[1]” which are principles of SHEP Approach and

[1] Autonomy: People need to feel in control of their own behaviors and goals
Competence: People need to gain mastery of tasks and learn different skills

implemented its activities based on the following concepts. Details are mentioned in the Section 1-5.

(a) Extension steps which are mutually related for motivating farmers and systematic [Autonomy]

- Diversification of measures for motivating farmers in consideration of interests of their groups
- Creation of awareness of farmers through visits to "Good Practice Farmers"
- Review the previous step at the beginning of the next step and supporting catch-up of farmers who did not participate in the previous steps, etc.



An extension activity to expose farmers to market information to motivate them at Nablus wholesale market

(b) Utilization of various information necessary for farming

- Providing opportunities and methods for collecting various information necessary for farming
- Strengthening linkage of markets and farmers [agriculture as business]
- Strengthening linkage of farmers to both upstream and downstream of the value chain [agriculture as business]
- Mitigating information gaps by gender, etc.



Extension officer planning market visit plans with participation of target farmers（Jerusalem DOA）

(c) Preparation of activity plans with participation of farmers [autonomy]

- Preparing plans for tours by farmers themselves
- Identifying and selecting needs for technical trainings by farmers themselves



Preparation of training materials and implementation of technical training in accordance with needs and technical level of farmers (Hebron DOA)

(d) Development of the contents of trainings in consideration of capacity level and diversity of target farmers [competence]

- Simplified market analysis method which farmers could actually practice.
- Providing either comprehensive trainings (farming of A to Z) or trainings on specific topics
- Optional farm record methods (simple version and detailed version)



Technology transfer from extension officers to extension officers (Tubas DOA provided technical guidance to Salfit DOA.)

(e) Strengthening of linkages among farmers [relatedness]

- Facilitation of information sharing on activities among target farmer groups through SNS and newsletters
- Promoting farmer-to-farmer extensions through field visits of Good Practice Farmers, etc.



Identification and utilization of local technologies (supplemental irrigation by using metal barrel in Salfit)

(f) Transparent process of selecting target farmer groups

Relatedness: People need to experience a sense of belonging and attachment to other people

- Preparing long lists of candidate target farmer groups and set clear selection criteria
- Prioritize candidate target farmer groups by extension officers in accordance with the agreed process, etc.

(g) Enhancing ownership of extension officers

- Allocating concerned departments to respective steps of the Package and clarify their responsibilities
- Preparing training materials and conduct trainings by MOA/DOA extension officers and other concerned staff with supports from JICA Experts, etc.


Utilization of grafted seedling for disease tolerance introduced by EVAP-1 (at a seedling nursery in Tulkarm)

(h) Practical gender mainstreaming

- Clarifying policies of gender mainstreaming and sharing them with concerned persons
- Implementing practical gender mainstreaming directly linked to increase of agricultural profits
- Applying different gender consideration measures by area and group, etc.

(i) Selecting technologies to be introduced in consideration of applicability, sustainability and extensibility [competence]

- Making an inventory of "Good Practice Farmers" who practice existing/conventional useful technologies and know-hows
- Substituting/omitting verification and demonstration of technologies to be extended by utilizing these existing useful technologies/know-hows
- Selecting appropriate technologies/know-hows by analyzing trends of these existing useful technologies/know-hows, etc.


Motivating farmers with diverse information (agricultural equipment and material shop in Nablus)

(j) Activities in consideration of Palestinian natural and social environments

- Setting a slogan: "From High Yield Agriculture to High Profit Agriculture"
- Setting orders of the target areas in consideration of climatic condition

1-5 Specific concepts of EVAP-2

Among the above-mentioned concepts, some concepts with underlines are regarded as unique features of EVAP-2. Those are explained as follows.

(1) Accumulation of various information necessary for farm management

Utilization of information is regarded as essential for preparing farm improvement plans. Necessary information consists of external information and internal one. The former one is about market, new production technique, climate/natural condition, farm inputs, credits, support programs, etc. The latter one is about farm records, labors, land/equipment/machineries owned by farmers, etc. EVAP-2 aims to accumulate the information and their collection measures through the respective steps of the Package. How farmers' utilization of information will be changed through EVAP-2 was planned to be checked.

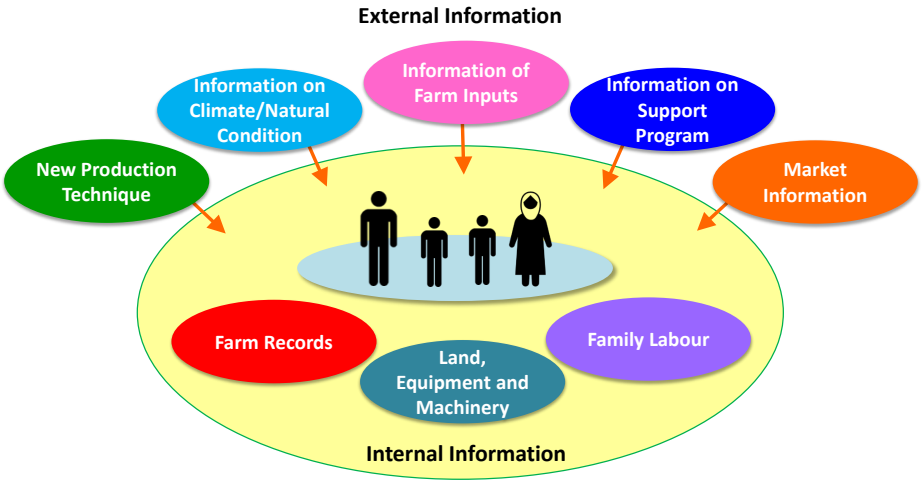


Figure 1-3 Important Information for Farming

Information gap between male famers and female in Palestine was recognized. Different trends on issues and technical needs between male farmer groups and female ones were also recognized. Thus, mitigating information gap for responding their issues/needs was set as one of major principles of gender consideration by the Project, which could lead to enhancement of agricultural profits. While division of roles in farm households and needs of farmers have been changed due to increasing number of male farmers who work in non-agricultural sector, DOA extension officers and farmers themselves have rarely dealt with these changed. EVAP-2 also aims to improve these situations.

(2) Motivating farmers through visits to "Good Practice Farmers"

Small/medium-sized farmers who practice market-oriented agriculture with effectively utilizing external information were selected as "Good Practice Farmers" who are destinations to be visited by target farmers at the step of "Awareness Creation Tour" based on the concept of *farmer-to-farmer extension.* Target farmers are motivated through comparing "Good Practice Farmers" and themselves and realizing their differences. Method of *farmer-to-farmer extension* adopted by EVAP-2 aims to enhance farmers' awareness and motivation and to establish wide-area networks among farmers by facilitating linkages among farmers in different areas and information sharing among them.



Motivating farmers and strengthening their network through visit to Good Practice Farmers (Jericho)

Through visits to "Good Practice Farmers", DOA extension officers and JICA Experts together with target farmers could have common image of ideal model farmers and realize directions of technical extension. It could be thought that the measure to show actual examples of farmers with generating high profits to target farmers would encourage them to make self-help efforts as well as substitute verification and demonstration of technologies to be extended. (See Chapter 3 for further details.)



Explanation of the market segmentation methods in Hebron

(3) Simplified market analysis method

Agricultural markets in Palestine can be categorized to four kinds according to the number of customers and competitive producers. Since characteristics of these four markets are different, farmers should change target markets (wholesale markets, retailers, or consumers) and marketing strategies. Planning workshops with participatory method were held where target farmers themselves selected target crops and markets to be visited with considering characteristics of these characteristics. (See Chapter 3 for further details.)

1-6 Gender mainstreaming in EVAP-2

In order to promote gender mainstreaming of the whole activities of EVAP-2, JICA experts together with concerned MOA/DOA staff have examined gender consideration measures by step of the Package and by target group with following viewpoints and actually applied these measures for implementing respective steps of the Package.

(1) Basic policies and viewpoints of gender consideration in EVAP-2

(a) Improving women's participant to training

- Equal access to training opportunities
- Providing appropriate trainings to right persons
- Preparing activity plans by participation of beneficial farmers
- Facilitating target female farmers to participate in EVAP activities including trainings

(b) Enhancing work efficiency and productivities in farm households

- Enhancing work efficiency and decrease workloads in consideration of actual situation of division of works/responsibilities by gender
- Mitigating information gap by gender



Examining gender consideration measures for respective target farmer groups (Hebron DOA)

(c) Facilitating women's involvement in decision-making in family

- Facilitating sharing of information on technologies/know-hows and communication among family members through distribution of newsletters
- Facilitating women's involvement in decision-making by mitigating information gap between male members and female ones

(d) Facilitating gender awareness of men and local communities

- Facilitating male farmers and local communities' awareness on effectiveness of gender consideration through transmission of related information by newsletters and SNS

(2) Reflecting gender consideration basic policy of EVAP-2 to extension activities

In order to reflect the above gender consideration policies to actual extension activities, following points were kept in mind in respective Steps. Gender mainstreaming in EVAP-2 is summarized in Attachment 1-2.

(a) Step 1 (Willingness and Readiness Confirmation): Gender consideration basic policy of EVAP-2 are shared with target farmer groups.

(b) Step 1-3 (Discussion on Gender Awareness and Consideration): Extension officers examine and prepare gender consideration measures by target group in consideration of social environments of respective selected target farmer groups.

(c) Step 4 (Farming Improvement Planning with Extension Needs Identification): Target farmer groups prepare technical training plans in consideration of gender viewpoints (column for gender consideration measures is added to format for planning technical trainings used in workshops).

(d) Step 6 (Extension Activities for Farming Improvement): Technical trainings based on plans prepared by farmer groups are implemented.

Cases of gender consideration measures taken in the 1st - 4th Cycles are as follows. They include ideas which the extension officers of DOAs provided on the basis of social environments of respective farmer groups.

Cases of gender consideration in the 1st, 2nd, 3rd and 4th Cycles



As there is a tendency for men and women to sit separately in mixed-sex workshops, extension officers moved from place to place and listened to needs from both sides.



As there was a tendency to refrain from participating in activities with children, EVAP has announced that children may participate in activities. A female farmer who knew it and participated in olive cultivation study tours with children.



Female farmers listening to intensively technical training behind children quietly playing with coloring pictures. There are many female farmers who cannot concentrate in training with children, so EVAP introduced one of the considerations to improve the effectiveness of activities at low cost.



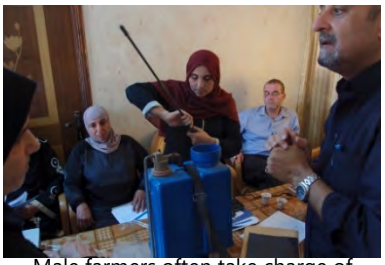
As there are women who avoid refusing to ride the same vehicle as men in a conservative area, we arranged vehicles separately for men and women, and made it easy for women farmers.



In a conservative area, women are not allowed to visit the wholesale market, so based on the needs of women farmers, we considered that they could also visit agricultural processors and retailers.



Since it is customary for women to carry out raising seedlings in agricultural work, we conducted a tour of visiting seed dealers based on the needs of female farmers and explained how to select healthy seedlings.



Male farmers often take charge of pesticide spraying but based on the needs of female farmers who want to be able to cope with the absence of men's migrant workers in recent years, EVAP conducted training on pesticide spraying technology for female farmers.



After gaining the consent of farmers in advance, we disclose the knowledge and skills of women farmers (empowerment) through Facebook to promote understanding of the effectiveness of gender consideration in the community.



Female farmers exchanging phone numbers with a female farmer visiting by a study tour. Knowledge sharing among female farmers can expand the network where female farmers with common issues can exchange information.

(3) Sustainable implementation of gender consideration measures in agriculture extension by MOA/DOAs

In order for the extension officers to take initiatives for implementing gender consideration measures and to continue these measures even after the Project completion, following points were taken into account.

(a) Gender consideration measures were regarded as means for achieving the project outputs and purpose.

(b) Common understanding on gender consideration was shared with relevant officers of MOA/DOAs by linking gender consideration measures to regular tasks of agriculture extension officers of "improvement of agriculture technology of farmers (including female ones)" and regarding "mitigation of agriculture information and technology gap between male and female farmers" as purpose of gender consideration.

(c) Gender consideration measures were taken within the scope of agriculture extension project.

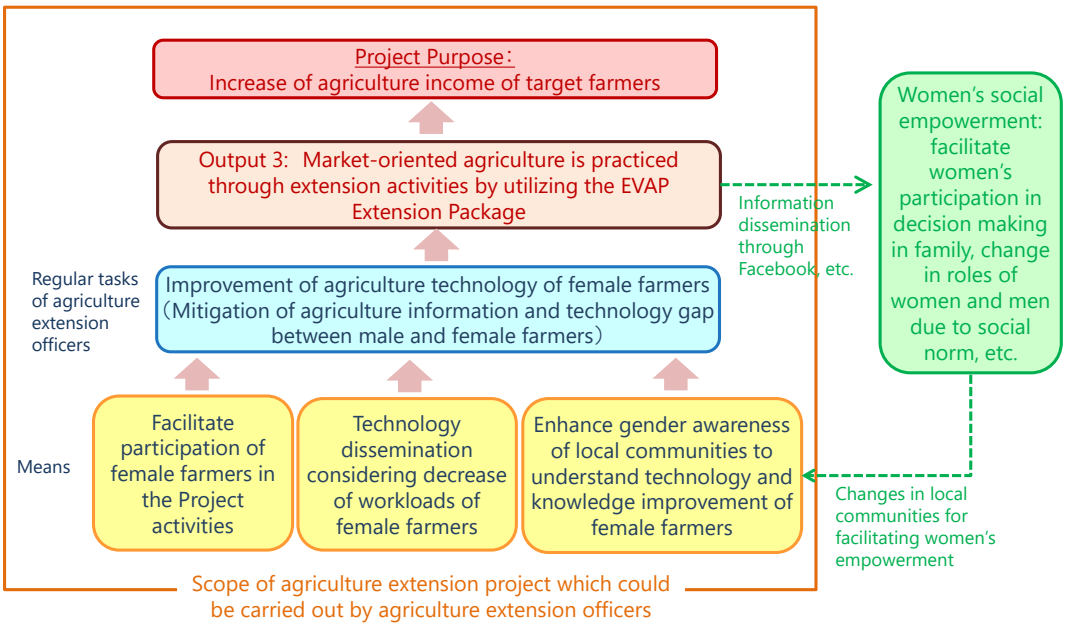
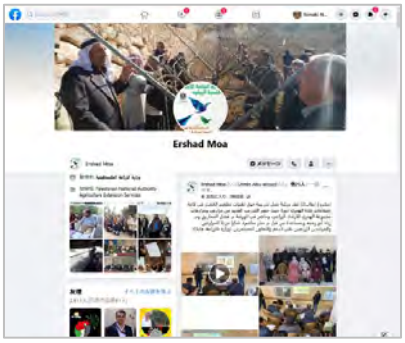


Figure 1-4 Gender Consideration Measures and Scope of Agriculture Extension Project

1-7 Public relations activity through SNS and newsletter

GDoERD of MOA has an account of Facebook (account name: Ershad Moa) through which information related to the Project activities including introduction sheets of "Good Practice Farmers" are posted (both in Arabic and English) for officers of MOA/DOAs and farmers in both West Bank and Gaza Strip. In addition, newsletters of the EVAP-2 (Japanese) are uploaded in JICA website for Japanese.



Public relations and communication with farmers through Facebook

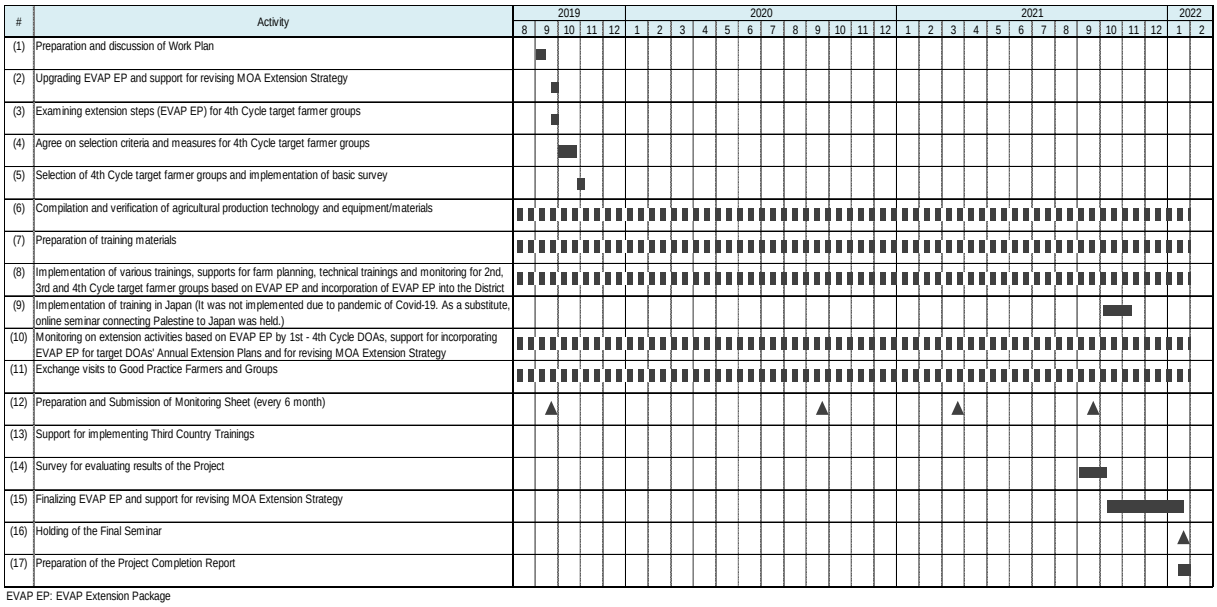
- Facebook of GDoERD of MOA: https://www.facebook.com/ershad.moa
- Website of JICA: https://www.jica.go.jp/project/palestine/009/index.html

According to interviews with some of target farmers, it was found that nearly all their households have at least one smartphone per each household and most of them utilize SNSs. It was also observed that some of farmers have utilized information from this Facebook and newsletters of the Project and

expanded their networks by directly communicating with other farmers. Case that a farmer in Gaza Strip knew cultivation technology of peas in West Bank through this Facebook and then introduced was observed.

1-8 Project flow and work process

Project flow and work process of the 3rd contract period are shown in the following figure.



EVAP EP: EVAP Extension Package

Figure 1-4 Project Flow

1-9 Progress of extension activities with EVAP Extension Package

Progress of extension activities with EVAP Extension Package as of the end of January 2022 is shown in the following table. All the extension activities for the 1st - 4th Cycles were completed by the time of the Project completion.

Table 1-1 Progress of Extension Activities EVAP Extension Package

Extension step (Original version)		1st Cycle	Extension step (Upgraded version)		2nd Cycle	3rd Cycle	4th Cycle
		Tubas, Nablus, Jericho			Tulkarm, Qalqiliya, Jenin	Salfit, Ramallah, Jerusalem	Bethlehem, North Hebron, Hebron, South Hebron, Yatta
1	Willingness and readiness confirmation	January 2017	1	Willingness and readiness confirmation	October 2017	October 2018	October 2019
2	Awareness creation tour	February 2017		Discussion on Gender Awareness and Consideration	October 2017	October 2018	October 2019
3	Market analysis	March - April 2017	2	Awareness creation tour	October and November 2017	November - December 2019	November - December 2019
4	Family resource and gender analysis	April 2017	3	Market opportunity finding	December 2017 - February 2018	December 2018 - February 2019	February - March 2020
5	Action planning and baseline assessment (by farmer groups)	May 2017	4	Farming improvement planning with extension needs identification	January - February 2018	March - April 2019	June, August and September 2020
6	Farm record keeping for profitability increase	May - June 2017	5	Farm record keeping for profitability increase	April 2018	April - May 2019	September 2020
	Training and technical supports	July 2017 - March 2018	6	Extension activities for farming improvement	July 2018 – July 2019	June 2019 - December 2019	September 2020 – August 2021
7	Profitability assessment	February - March 2019	7	Profitability assessment	January 2020	March 2021	January 2022

: Completed : On Going : To be planned

Chapter 2 Project Activities

"Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)" (hereinafter referred to as EVAP-2) are divided into the three contract periods. Project activities in each period are described as follows:
- 1st Contract Period (July 2016 - March 2018): Project Progress Report (1st Period)
- 2nd Contract Period (April 2018 - July 2019): Project Progress Report (2nd Period)
- 3rd Contract Period (July 2019 - January 2022): Project Completion Report (this Report)

This report contains the project activities conducted in the 3rd Contract Period (July 2019 - January 2022).

2-1 Progress of project activities

(1) Preparation and discussion of the work plan (draft for the third period)

Based on lesson learnt from activities in the first and second contract period, the project team made a workplan of the third contract period. The English version of the workplan (the 3rd contract period) was developed by adding supplemental explanations about basic methods of activities, a work schedule, and practical methods of implementation to the Japanese version. The project team and counterparts discussed on the English workplan at the JCC and finalized it with a consensus. The following section summarizes results of the JCCs held in the third contract period.

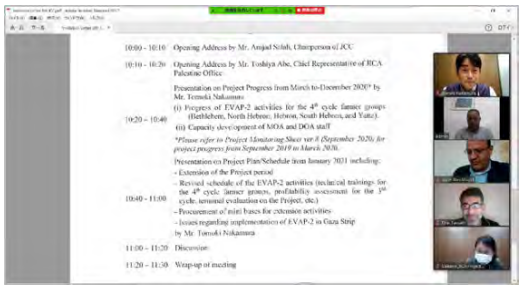
1) The 7th JCC

The main agenda items included a report on the progress of the project activities (March 2019-August 2019), the workplan (the third contract period) including the activity plan (September 2019 onward), and the progress of the implementation of the EVAP extension package by using own budget of the Palestine authority. The items explained and proposed were approved by the participants. The minute of the meeting is shown in Attachment 2-1.



2) The 8th JCC

The 8th JCC was originally scheduled to be held in March 2020 but had to be postponed due to COVID-19. Due to the inability of Japanese to travel, the meeting was held online. The project team reported on the progress of the project activities (from March 2020 to November 2020), the progress of procurement of vehicles (minibuses) to be provided, the implementation policy of EVAP-2 activities in the Gaza Strip, the extension of the EVAP-2 project period (from October 2021 to February 2022), and the main activities until the completion of the project. The reports made by the project team were confirmed and approved by participants. The minute of the meeting is attached as Attachment 2-2.



3) The 9th JCC

The main agenda of the 9th JCC was to present the results of the joint terminal evaluation survey (19

Sep. - 7 Oct. 2021). Evaluation results and recommendations, and project plan and schedule by the Project completion (implementation of EVAP Extension Package in Gaza Strip, online virtual study tour to Japan, and follow-up actions for recommendations by the joint terminal evaluation team) presented at the JCC were confirmed and approved by the attendants. The Joint Terminal Evaluation Report on EVAP-2 singed by team leaders (Dr. Jiro Aikawa, JICA Senior Advisor and Mr. Hassan Ashqar, Director General of GDoPP) was submitted to Chairperson of the JCC (Mr. Amjad Salah, Assistant Deputy Minister for Technical Affairs, MOA). The minute of the meeting is attached as Attachment 2-3.







(2) Reflected in EVAP Extension Package

Based on the past activities, the following points were considered for improving the EVAP Extension Package: 1) promotion of "nichification" through crop differentiation, 2) strengthening the link between "information, farmer needs, and technical training," 3) “classification of farmers” and efficiency of workshops, and 4) consideration of "farmer diversity”. These considerations were reflected in the content of the EVAP Extension Package. The details are described in Chapter 3.

(3) Consideration of extension activity steps for 4th cycle target groups

At the 7th JCC (18 Sep. 2019), the extension plan using the EVAP Extension Package in the 4th Cycle was explained and members approved that the target DOAs would be Bethlehem, Hebron, North Hebron, Yatta, and South Hebron (Dura), and that a total of six farmer groups (2 groups for Bethlehem DOA and 1 group each for other DOAs) would be supported, considering the number of farmers that can be managed in the Project.

(4) Agree on the selection criteria and method of selecting the target farmer groups for the 4th Cycle

Based on the lessons learned from activities for the target farmer groups for the previous cycles, the selection criteria and selection method for the target agricultural stations and target farmer groups for the 4th Cycle were discussed with the task force meeting and agreed with the C/Ps. The selection criteria and methods were agreed upon at the 7th JCC (18 Sep. 2019).

(5) Selection of target farmer groups for the 4th Cycle and implementation of basic survey

1) Basic survey to grasp situation of agriculture and extension activity in target area

In order to grasp present status of agriculture and extension activities in the 4th Cycle target area and identify problems, basic survey was conducted with revising “Basic Survey on Agricultural Extension in Palestine” (Attachment 2-4) which was prepared at the beginning of the Project (February 2017) based on the latest information. Contents of this Report are as follows.

Contents of "Report on Basic Survey on Agriculture Extension in Palestine" (prepared in February 2017 and revised in July 2021):

1. Agriculture extension related policies
2. Implementation system for agriculture extension
3. Extension officers
4. Offices, equipment and material for agriculture extension
5. Agriculture extension related budgets
6. Agriculture extension plans
7. Review on existing literatures on agriculture extension in Palestine
8. Agricultural holdings
9. Agricultural land
10. Agrometeorology and water resources
11. Agricultural production
12. Marketing of agricultural products
13. Farmer groups

2) Narrow down the target farmer group (October 2019)

Based on the long list of farmer groups in the target sub-sectors selected by the DOAs in the 4th cycle, the following procedure was used for consultation and selection of target farmer groups. Since the GDoERD formulates annual extension plans for each sub-sector, the procedure for the EVAP project was to start with the selection of sub-sectors accordingly. The detailed procedure is described in Chapter 3. The selected farmer groups are shown in the following table.

Table 2-1 Profile of the selected target farmer groups for the 4th Cycle

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-1	Al Khader Grape Farmer Extension Group	Bethlehem	Al Khader	Not registered	Newly organized for EVAP-2	14	4	15	Grape production
4-2	Janata Livestock Farmer Extension Group	Bethlehem	Janata	Not registered	Newly organized for EVAP-2	19	9	28	Sheep, Goat
4-3	Sa'eer Farmer Extension Group	Hebron	Kwazeba-Sa'eer	Not registered	Newly organized for EVAP-2	8	2	10	Vegetable production
4-4	Agriculture Knowledge Leading Group in Halhoul	Hebron	Halhoul	Not registered	Newly organized for EVAP-2	17	6	23	Grape, grape processing production
4-5	Yatta Agriculture Innovative Farmers Extension Group	Hebron	Yatta	Not registered	Newly organized for EVAP-2	19	0	19	Sheep, Goat
4-6	Al Hejri Farmer Extension Group	Hebron	Al Hejri	Not registered	Newly organized for EVAP-2	15	10	25	Vegetable production
					Total	92	31	123	

(6) Compilation and verification of agricultural production technology and equipment/materials.

1) Provision of 4WD vehicles to DOAs for agricultural extension

In March 2020, the vehicles (8 units of 4WD vehicles) procured by JICA Palestine Office were handed over to MOA of Palestinian Authority and deployed to DOAs of the 3rd and 4th Cycles. The following items have been agreed in writing between JICA Palestine Office and MOA. The Project Team plans to continue monitoring to ensure that the vehicles are being used appropriately for the purposes for which they were provided.



DOAs deployed by vehicles:

- The 3rd Cycle: Salfit, Ramallah, Jerusalem

- The 4th Cycle: Bethlehem, North Hebron, Hebron, South Hebron, Yatta

Reason of the deployment:

- Because many vehicles of DOAs are not dedicated for extension activities and cannot be used for extension activities
- Most of the vehicles have exceeded 200,000 kilometers in mileage, are aging, and need frequent repairs and parts replacement.

Agreements between JICA Palestine Office and MOA on the provision:

- MOA is responsible for management and repair.
- All maintenance costs such as registration with the Transport Bureau, insurance, fuel, parking fees, driver's salaries, etc. will be borne by MOA.
- The vehicles are to be used only for extension activities related to the EVAP extension package.

In June 2020, the project team conducted monitoring of the use of the above provided vehicles (8 units of 4WD vehicles) and confirmed that the vehicles are being used for extension activities related to the EVAP extension package in DOAs of the 3rd and 4th cycle.



Visit farmers by using the provided vehicle.（North Hebron DOA 2020/6/7）



Regular visits by using the provided vehicle.（Hebron DOA 2020/6/4）



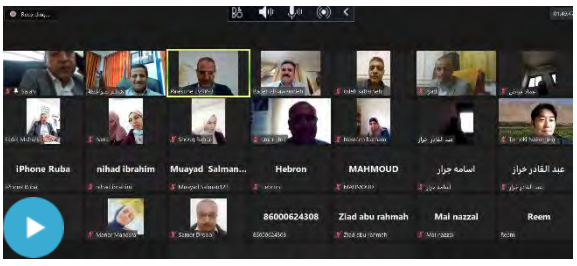
Participation in EVAP activities by using the provided vehicle.
（South Hebron DOA2020/6/2）

2) Provision of minibuses to MOA for agricultural extension



In May 2021, JICA Palestine Office provided two 9-seater minibuses to MOA, and it was confirmed that the minibuses are being used for EVAP-2 and the extension activities of DOAs in accordance with the rules set in the agreement between JICA Palestine Office and MOA. Each DOA is using the minibuses for study tours for farmers and other activities. As the direction of agricultural extension in the West Bank, the sharing of knowledge between farmers with good practices and those without is considered to be effective, it is expected that the provided vehicles will be effectively used to connect farmers throughout Palestine and raise the level of technology through knowledge sharing.

3) Meeting for facilitating extension activities by utilizing minibuses



Extension activities by DOAs themselves had been stagnated since fiscal year of 2020 due to budget shortage of MOA. In order to solve this problem, JICA Palestine Office provided two minibuses to MOA in May 2021. Mr. Salaheddin Albaba (Director General of GDoERD) held the online meeting on 14 September 2021 to explain usage rule of these minibuses, give instruction on facilitating extension activities by utilizing the minibuses, and

request for cooperation for the joint terminal evaluation survey.

(7) Preparation of training materials

1) Preparation of technical training materials

For preparing and disseminating technical training materials, the Project Team keep a policy of utilizing existing practices in Palestine, rather than transferring directly Japanese technology as it is, so that the technology can be easily accepted by farmers considering sustainability of the technology. Fifty-three (53) different technical training materials were prepared in the whole period of the Project. In addition, inventory of existing 104 technical manuals hold by MOA was prepared to be efficiently used for extension activities. The list of technical training materials is attached as Attachment 3-6. Following materials were developed in the third contract period.

a) Technical training material on Integrated Pest Management (IPM)

Through the activities done so far, it was found that vegetable farmer groups in the southern part of the West Bank often engage in continuous cropping due to the small number of crops grown. This has resulted in a high incidence of pests and diseases, and their control is a particularly important technical issue. Based on the issues faced by the farmer groups, technical training materials on Integrated Pest Management (IPM) and precautions to be taken when mixing multiple pesticides were prepared (May 2020).

Contents of technical training materials for Integrated Pest Management (IPM):

- Why do pests and diseases occur?
- How to control pests and diseases
- Integrated Pest Management (IPM)
- How to identify and prevent diseases
- Ecological and physical prevention
- Key points for pest control
- Type of disease
- Key points for pesticide use
- The dangers of mixing pesticides
- Precautions when mixing pesticides



A plot of vegetable farmers in Hebron (due to the small variety of vegetables, they face the high rate of pests and diseases caused by continuous cropping)

b) Training materials for technology to improve grape berry quality

Based on the needs of farmers, training material for grape berry quality improvement technology was prepared (August 2020). In preparing the material, the experts in charge of fruit cultivation technology at MOA reviewed it and reflected their opinions. The major problem of grape production in Palestine are the occurrence of pests and diseases due to overgrowth and the reduction of fruit size and quality due to excessive fruit set. Therefore, the project team included many techniques to deal with these problems to the teaching material. The structure of the material is as follows.



In Palestine, many of the fruits are small and have high variability due to insufficient nutrient supply to the fruits caused by excessive fruit set



In Palestine, pruning is rarely done, and in many cases, overgrowth of branches and leaves prevents fruit set and fruit fertility, and reduces air circulation, increasing damage from diseases and insects.

Contents of training material for technology to improve grape berry quality:

- The environment suitable for growing grapes
- Crown and tree shape
- Pruning techniques
- Removal of suckers and excessive branches
- Proper branch placement
- Sprouting of main branches
- Thinning of *Tatweesh* (the local name for the branch type)
- Pruning down Qasif (the local name for the branch type)
- Pest control using pheromone traps
- Picking fruit and bunching
- Foliar application of liquid fertilizer
- Use of plant growth regulators
- Seedless grape formation using gibberellin
- Use of ethylene to promote flowering and fruit ripening
- Load on tree body due to excessive flower bud formation
- Signs of physiological disorders caused by nutrient deficiencies
- Observation of pests and appropriate timing for pest control

c) Training material for technology to improve grape berry quality

Contents of training material for technology to improve grape berry quality:

- Why do pests and diseases occur?
- Three factors that cause pest outbreaks
- How can we eliminate a risk of causing the three factors?
- What is IPM (Integrated pest management)
- Approaches to farming, physical, chemical, and biological pest control
- Farming pest control
- Physical pest control
- Biological pest control
- Points for pest controll
- Classification by damage caused by pests
- Types and characteristics of insecticides
- Points for disease control
- Classification of diseases
- Characteristics of each disease type and differences in control methods
- Key points for pesticide use
- Procedures for selecting appropriate pesticides

d) Training material for safe and high-quality sheep milk production and dairy product processing technology

Technical training for safe and high-quality sheep milk production and dairy product processing technology:

- Sheep milk and its components
  - Quality standards for safe and high-quality sheep milk
  - Methods to produce safe and high-quality sheep milk

  How to evaluate the quality of sheep's milk
  - Recommendations for obtaining safe and high-quality sheep milk
  - Causes of producing abnormal sheep milk
- Causes of contamination of sheep milk
- Tools for handling sheep milk
- Milking and collection methods
- How to cool sheep milk
- How to store sheep's milk while maintaining its quality
- Processing of dairy products
  - Merits of processing
  - Definition of pasteurization
  - What is dairy processing?
- Dairy processing technology
  - Cream
  - Jameed
  - White cheese
  - Butter
  - Ghee
  - Yogurt
- Important aspects of dairy processing



(8) Implementation of various trainings, supports for farm planning, technical trainings and monitoring for 2nd, 3rd and 4th Cycle target farmer groups based on EVAP Extension Package and incorporation of EVAP EP into the District Annual Extension Plans

Activities for the 2nd Cycle target farmer groups

EVAP-2 Team supported directly the 1st year of activities in DOAs of the 2nd Cycle (Jenin, Tulkarm, Qalqiliya), and the DOAs took initiative to continue the extension activities of the EVAP Extension Package from the second year. EVAP-2 Team indirectly monitored and supported their activities so that DOAs could come to manage all steps independently. As for the Extension Step 7: Profitability Assessment (agricultural profitability analysis), it was planned to be implemented in the second year

after starting supports for target farmers, so it was conducted in the third contract period as follows. The results of each related activity are as follows.

1) The 2nd Cycle: Extension Step 7: Profitability Assessment



a) Extension Step 7 : Extension taskforce meeting on Profitability Assessment

EVAP-2 Team had discussions with the members of the extension taskforce of the GDoERD on implementation procedures and questionnaire forms for profitability assessment (2020/1/8).

b) The 2nd Cycle: Pre-training guidance to DOAs



EVAP-2 Team conducted a technical transfer about implementation procedures of profitability assessment for DOAs of the 2nd Cycle: Jenin DOA (joined by South Jenin DOA established in 2018) (2020/1/12), Tulkarm DOA (2020/1/13) and Qalqiliya DOA (2020/1/14).

c) The 2nd Cycle: Extension Step7: Workshops for target farmer groups



Workshops of profitability assessment for the target farmer groups of the 2nd Cycle were conducted. Extension officers of DOAs facilitated the workshops and requested participants to fill in the questionnaires. Please refer to Chapter 6 for results and analysis of the data.

Activities for the 3rd Cycle target farmer groups

Extension activities based on the EVAP Extension Package were conducted for target farmers groups of the 3rd Cycle. EVAP-2 Team also supported DOAs to incorporate the EVAP Extension Package into their annual extension plans in accordance with indicators of PDM similar to the 1st and 2nd Cycle DOAs. Results of each related activity are as follows. EVAP-2 Team supported directly the 1st year of activities in DOAs of the 3rd Cycle (Salfit, Ramallah, Jerusalem), and the DOAs took initiative to continue the extension activities of the EVAP Extension Package from the second year. EVAP-2 Team indirectly monitored and supported their activities so that DOAs could come to manage all steps independently. As for the Extension Step 7: Profitability Assessment (agricultural profitability analysis), it was planned to be implemented in the second year after starting supports for target farmers, so it was conducted in March - April 2021.

1) The 3rd Cycle: Extension Step 6: Extension Activities for Farming Improvement

Extension Step 6: “Extension Activities for Farming Improvement” were conducted for target farmer groups of the 3rd Cycle. Each training was conducted in accordance with the extension plans formulated by the farmer groups themselves. Activities for each farmer group are described in Chapter 4.

a) The 3rd Cycle: TOT on heat treatment technology to improve the quality of grape syrup (Dibis)



A training of trainers (TOT) for extension officers on heat treatment technology to improve the quality of grape syrup (Dibis) was conducted (26 April 2021) at Jerusalem DOA, which has jurisdiction over the Jerusalem region where grape production is flourishing. Mr. Jihad Al-Bargouthi, Director of Extension, Jerusalem DOA, and extension officers participated in the training. Mr. Amin Abu-Alsoud (EVAP-2 Team) served as a trainer and explained about the grape syrup (Dibis) processing technology that meets the quality standards of the Palestine Standards Institution (PSI).

2) The 3rd Cycle: Extension Step 7: Profitability Assessment

a) The 3rd Cycle: Pre-training guidance to DOAs



Ramallah DOA and Jerusalem DOA



Salfit DOA

Technical transfer about implementation procedures of profitability assessment were conducted for extension officers of the 3rd Cycle DOAs: Ramallah and Jerusalem (23 March 2021) and Salfit (24 March 2021). Many practical questions and comments on procedures and questionnaire forms were given by participant extension officers.

b) The 3rd Cycle: Extension Step 7: Workshops for target farmer groups

Workshops of profitability assessment for the target farmer groups of the 3rd Cycle were conducted (March and April 2021). Extension officers of DOAs facilitated the workshops and requested participants to fill in the questionnaires. Please refer to Chapter 6 for results and analysis of the data.

c) The 3rd Cycle: Extension Step 7: Share of the results

Results of the Step 7 were compiled as the presentation material and shared with GDoERD and the 3rd Cycle DOAs in order MOA/DOAs to realize effectiveness of EVAP Extension Package and incorporate the extension activities by utilizing the Package into their annual extension and budget plans. Information/data on i) change in information use, ii) change in application of information for farming, iii) change in those who obtain information by gender, iv) change in communication between extension officers and farmers, v) evaluation on trainings and training materials, vi) effectiveness of gender consideration measures, vii) evaluation of farming problem improvement, viii) change in agricultural profits, ix) comments/requests for MOA/DOAs, and x) cases of changes in target farmers' behaviours were shared.

<u>Activities for the 4th Cycle target farmer groups</u>

1) The 4th Cycle: Kick-off meeting for DOAs

Kick-off meetings for the 4th Cycle target DOAs: Bethlehem DOA (2019/9/29), Hebron DOA

(2019/9/23), North Hebron DOA (2019/9/30), Yatta DOA (2019/10/1), and South Hebron (Dulla) DOA (2019/9/26) were conducted. In the meetings, the outline, and characteristics of the EVAP Extension Package, and the future plan for each DOA to implement the EVAP Extension Package with their own budgets were explained



2) The 4th Cycle: Extension Step 1: Willingness and Readiness Confirmation

a) The 4th Cycle: Extension Step 1-1: Prioritization of farmer groups and pre-training guidance to DOAs and selection of target farmer groups



In order to make the process of selecting farmer groups transparent, the Project has adopted the following procedures: (1) selection of target agriculture sub-sectors by DOAs, (2) preparation of a long list of farmer groups in the regions, (3) prioritization of farmer groups based on criteria, and (4) confirmation of willingness of selected farmer groups to participate. Target farmers were selected according to the procedure in Bethlehem DOA (2019/10/6), Hebron DOA (2019/10/3), North Hebron DOA (2019/10/7), Yatta DOA 2019/10/8) and South Hebron (Dura) DOA (2019/10/3). The details of the selection procedure are described in Chapter 3.

b) The 4th Cycle: Extension Step 1-2: Workshops for target farmer groups to confirm their willingness to participate

Workshops were held for the selected farmer groups to confirm their willingness to participate. The workshops were facilitated by the extension officers of each DOA. The results of the workshops for each farmer group are described in Chapter 4.

c) The 4th Cycle: Extension Step 1-3: Discussion on Gender Awareness and Consideration（2019/10/21）



In Palestine, the social environment and customs vary by region, ethnicity, and religion, and it is necessary to consider gender-sensitive measures for each farmer group individually. Thus, workshop was held to discuss this issue. In this workshop, two counterparts from the Rural Development Department of GDoERD served as facilitators for the extension officers of DOAs of the 4th Cycle and explained the perspective of gender considerations in EVAP-2 and past examples of gender considerations. Then, participants discussed on gender consideration measures for each of the selected target farmer groups.

In the exercise, members discussed on gender-related issues and gender consideration measures to solve the issues based on the social environment and practices of the target farmer groups. DOA extension officers provided ideas for each step of the EVAP Extension Package (discussion on gender consideration measures with the participation of the extension officers DOAs). More specific considerations for each farmer group based on the social environment were discussed through discussing gender considerations after selecting the target farmer groups. The measures for each farmer group

considered by the extension officers are described in the section on the target farmer groups for the 4th Cycle in Chapter 4.

3) The 4th Cycle: Extension Step 2: Awareness Creation Tour

a) Pre-training guidance for DOAs



Pre-training guidance was provided to the extension officers who will be facilitators at Bethlehem DOA, North Hebron DOA, Hebron DOA, South Hebron DOA, and Yatta DOA covered in the 4th Cycle (2019/11/12). In order to ensure technology transfer from extension officers to extension officers, two extension officers were selected from Qalqiliya DOA in the 2nd Cycle who had experience in implementing this step, and the method was transferred by them to DOAs of the 4th Cycle.

b) The 4th Cycle: Extension Step 2-1: Participatory Tour Planning Workshop

The five DOAs targeted for the 4th Cycle, which received direct technology transfer from the extension officers of the 2nd Cycle DOAs, organized the extension Step 2-1: Participatory Tour Planning Workshop. The purpose of this activity was to motivate the target farmers to participate in the project activities and to encourage them to change their behavior towards market-oriented agriculture by showing them actual examples of good practice farmers who are practicing market-oriented agriculture with self-help efforts. Through this activity, effectiveness of "technology transfer from extension officers to extension officers" and "methods using e-guidelines" was confirmed.

c) The 4th Cycle: Extension Step 2-2: Awareness Creation Tour

Extension Step 2: Awareness Creation Tour was conducted for the six farmer groups of the 4th Cycle. The activities of each farmer group are described in Chapter 4.

4) The 4th Cycle: Extension Step 3: Market Opportunity Finding

Extension Step 3: Market Opportunity Finding: market visits by farmers was conducted for farmer groups of the 4th Cycle.

a) Pre-training guidance for DOAs





In order to ensure the technology transfer among extension officers, two extension officers (Mr. Samer Droobi and Ms. Haifa Omar from Tulkarm DOA) were selected from DOAs of the 2nd Cycle for delivering the methodology to DOAs of the 4th Cycle. First, the EVAP-2 Team briefed changes in the methodology for the selected extension officers of Tulkarm DOA (2020/1/13). Then, pre-training guidance was provided by those of Tulkarm DOA to the extension officers of the 4th Cycle DOAs, who would facilitate workshops for farmer groups. Participants asked many questions, especially on how to classify market characteristics for each crop and how to develop marketing strategies.

b) The 4th Cycle: Extension Step 3-1: Participatory Tour Planning Workshop

Extension officers of the 4th Cycle DOAs facilitated the Extension Step 3-1: Participatory Tour Planning Workshop for Market Visit Planning. Summary of the workshops for each farmer group is provided in Chapter 4.

c) The 4th Cycle: Extension Step 3-2: Market Opportunity Finding

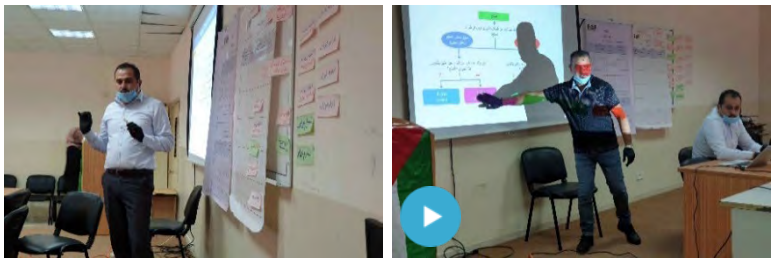
Market visits were conducted based on the plans formulated by the farmer groups in the participatory workshops. Overview of the market visits by each farmer group is reported in Chapter 4.

5) The 4th Cycle: Extension Step 4: Farming Improvement Planning with Extension Needs Identification

Extension Step 4: Farming Improvement Planning with Extension Needs Identification was conducted for the 4th Cycle farmer groups as follows.

a) Pre-training guidance for DOAs

Pre-training guidance (TOT) was conducted (2 June 2020) by inviting 35 extension officers from the five DOAs of the 4th Cycle at the Al-Aroub extension station meeting room (Hebron district). As a precautionary measure against COVID-19 infection, all participants wore masks according to the rules of MOA. In order to ensure the technology transfer from one extension officer to another, two extension officers from Jenin DOA, who implemented the EVAP Extension Package in the 2nd Cycle, served as lecturers and explained the procedures and main points of the Extension Step 4 (Farming Improvement Planning and Training Needs Identification). Based on their own experiences, the two lecturers explained that it was also important to anticipate the problems and needs of farmers in advance. They also shared their experience of encouraging farmers to discuss the contribution of women in agriculture with each other, with the aim of analyzing the need for additional extension activities for women farmers. The participants understood the rationale behind the EVAP Extension Package, which is to formulate a farming improvement plan in the Step 4 based on the results of the Extension Step 2 (Awareness Creation Tour) and the Step 3 (Market Opportunity Finding). The purposes of the past activities seemed to have become clear for them.



Extension officers who have experienced the EVAP extension package in the second cycle explaining the methodology and sharing their experiences

b) The 4th Cycle: Extension Step 4: Farming Improvement Planning with Extension Needs Identification

A participatory workshop for the Extension Step 4: Farming Improvement Planning with Extension Needs Identification was facilitated by the extension officers of the 4th Cycle DOAs. Summary of the workshops for each farmer group is provided in Chapter 4.

6) The 4th Cycle: Extension Step 5: Farm Record Keeping for Profitability Increase

a) Pre-training guidance for DOAs



As one of the concepts of the Project is "technology transfer from extension officers to extension officers", technology transfer from officers of the 2nd Cycle DOAs to the 4th Cycle DOAs was originally arranged. However, this was not possible due to the travel restrictions imposed by COVID-19. Instead, the GDoERD officers (Mr. Walid Lahlouh and Ms. Maram Sawalha), who had participated in previous project activities, were asked to serve as trainers to explain the methodology for implementing this Step to the 4th Cycle DOAs (Bethlehem (2020/9/20), Hebron (2020/9/8), North Hebron (2020/9/7), Yatta (2020/9/6), and South Hebron (2020/9/10)).

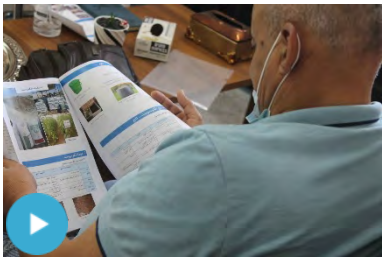
b) The 4th Cycle: Extension Step 5: Farm Record Keeping for Profitability Increase

Workshops on Farm Record Keeping for Profitability Increase for target farmer groups were conducted with facilitation by extension officers of the 4th Cycle DOAs. Summary of the training for each farmer group is provided in Chapter 4.

7) The 4th Cycle: Extension Step 6: Extension Activities for Farming Improvement

Extension Step 6: “Extension Activities for Farming Improvement” were conducted for target farmer groups of the 4th Cycle. Each training was conducted in accordance with the extension plans formulated by the farmer groups themselves. Activities for each farmer group are described in Chapter 4.

a) Technical transfer to DOAs for technical training on compost making techniques



TOT on compost making techniques
North Hebron DOA（2020/10/20）



TOT on compost making techniques
South Hebron DOA（2020/11/18）

In EVAP-2, extension officers serve as training instructors in technical trainings for farmers. TOT for extension officers had been conducted by Japanese experts. However, due to the COVID-19, Japanese experts were unable to travel, so Mr. Amin Abu Alsoud, EVAP-2 Team member, conducted the TOT with remote instructions by the Japanese experts. Based on the technical training plan formulated by the farmer groups in the Step 4, TOTs on compost making technology were conducted in North Hebron DOA (2020/10/20) and South Hebron DOA (2020/11/18) to transfer the technology to the extension officers.

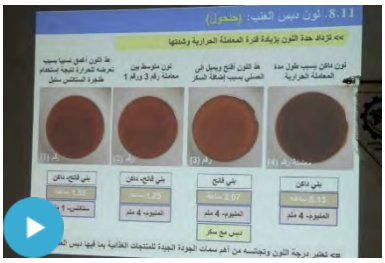
b) Technical training for DOA extension officers on heat treatment technology to improve the quality of grape syrup (Dibis)



TOT for extension officer on heat treatment technology to improve the quality of grape syrup (Dibis) was conducted at the North Hebron DOA (10 February 2021). Mr. Amin ABU-ALSOUD (EVAP-2 Team member) played as a lecture, and Mr. Salaheddin Al-Baba (Director General of GDoERD) and Mr. Majdi Amro (Director General of North

Hebron DOA) attended as observers. During the Market Visit (Extension Step 2), the farmer group was informed by the visiting agro-processors that the Palestine Standards Institution (PSI) has set quality standards for agro-processed products. The technical training was arranged for processing grape syrup (Dibis) to meet the quality standards. Since excessive heating for a long period of time during processing would cause toxic substances to be generated and would not meet the quality standards, the Project commissioned the Birzeit University to conduct experiments and analysis for determining the optimal heating time. Based on the results, discussions were held with the extension officers on how to disseminate the technology. Same TOTs were conducted for Bethlehem DOA (23 February 2021) and Hebron DOA (22 April 2021).









c) Training for DOA extension officers on the use of grafted vegetable seedlings

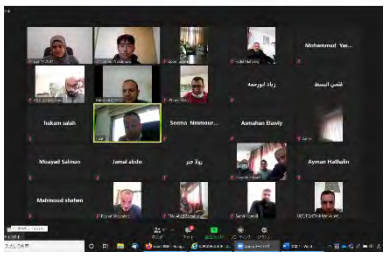
TOT on the use of grafted seedlings for vegetables was conducted for extension officers of Hebron DOA, North Hebron DOA, and South Hebron (Dura) DOA through online (15 February 2021). Target farmers of these DOAs have been cultivating vegetables using plastic greenhouses, but they are facing the problems of pests and diseases, leading to yield loss due to continuous cropping. As a countermeasure to these problems, technical training on the use of grafted vegetable seedlings was requested by farmers. Mr. Abedul Qader Kharaz, Director of Vegetable Department, GDoERD served as an instructor for this TOT. This technical training covered the effects of grafted seedlings, cultivation management, pest and disease control, and characteristics of good quality grafted seedlings, etc. The grafted seedling technology for vegetables disseminated by EVAP-1 has been applied by local seeds and seedling dealers and is now easily available to general farmers.

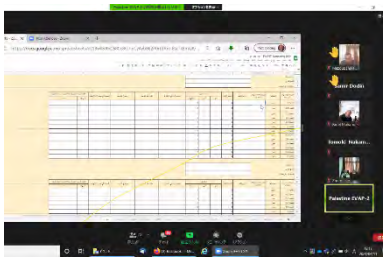


TOT using Zoom

8) The 4th Cycle: Briefing on how to use the online monitoring sheet for extension activities in DOAs

Technology transfer was done for the 4th Cycle DOAs on how to use the online extension activity monitoring sheet by using Google Spreadsheet (in October 2020). If it works well in the 4th Cycle DOAs, it was planned to be applied for all DOAs. Ms. Maram Sawalha, Director of Extension Planning and Monitoring Department of GDoERD Project, served as a lecturer in the briefing session and explained





the data entry method.

Since the pilot introduction of the "Online Monitoring Sheet for Extension Activities" was conducted for the 4th Cycle DOAs in October 2020, and they were able to input the information smoothly, a briefing session on how to use the sheet was conducted via Zoom for all 15 DOAs in the West Bank (11 April 2021). It was organized by Mr. Salaheddin Al-Baba, Director General of GDoERD and Ms. Maram Sawalha and was attended by a total of 72 officers engaged in extension, including the Director General of DOAs.

9) The 4th Cycle: Introduction of network diagnosis technology of drip irrigation tubing

a) Technology transfer to extension officers for network diagnosis technology of drip irrigation tubing



In order to mitigate agriculture irrigation related problems (uneven location of wells, high irrigation water cost, more irrigation than required amounts, trouble of drip irrigation equipment, high salinity of ground water, etc.), EVAP-2 has conducted a network diagnosis of drip irrigation tubing, which is common in Palestine, to evaluate its efficiency and introduce technology to optimize the amount of irrigation according to the water requirements of each crop.





In the southern part of the West Bank on the Jordanian side of the 4th Cycle, agricultural wells and springs are scattered throughout the area, and agriculture is carried out using them. In order to transfer technology to the target farmer groups, TOTs on drip irrigation tubing network diagnostic technology were conducted at Al Aroub Agricultural Experiment Station in Hebron (30 May and 1 June 2021). Mr. Mohammed Talahmeh (GD of Agricultural Water and Irrigation) and Mr. Abedul Qader Kharaz (Director of Vegetable Department of GDoERD) were the instructors for the training and the technology transfer was conducted for the extension officers of DOAs in the south. The training also included field practice of drip irrigation network diagnosis using simple instruments.

b) Network diagnosis of drip irrigation tubing by Hebron DOA

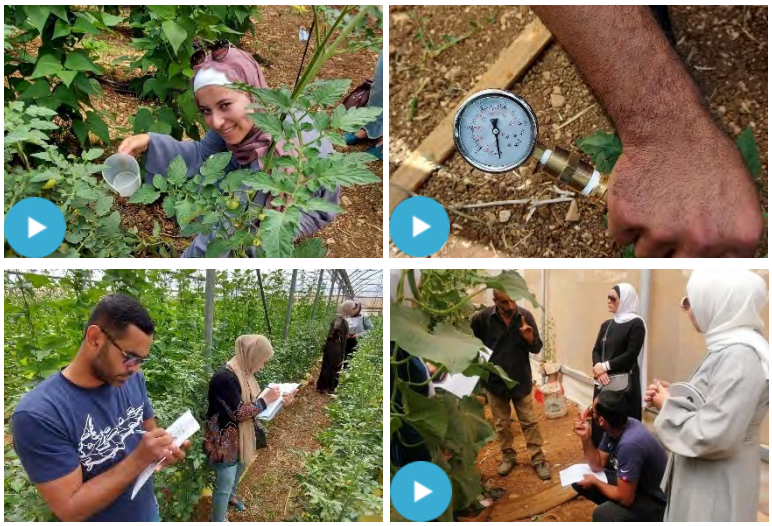




Extension officers of Hebron DOA visited the field of Sa'eer Vegetable Farmer Extension Group to diagnose the network of drip irrigation tubes (9 June 2021). The farmer, Mr. Raed Basheer, was irrigating only about 50% of his crop water requirements, which was affecting his crop yield and farm income. The cause was thought

to be inadequate water pressure due to deterioration of the drip irrigation system. The extension officers suggested the following remedial measures: 1) replace the deteriorated pump, 2) divide the field into two and irrigate at different times, 3) replace the deteriorated emitters (holes that supply water to the roots of the crop), and 4) extend the amount and duration of irrigation. The extension officers will continue to provide diagnosis to other farmers in the jurisdictional area.

c) Network diagnosis of drip irrigation tubing by South Hebron DOA



Extension officers of m South Hebron DOA visited the field of Al Hejri Farmer Extension Group to diagnose the network of drip irrigation tubes (14, 20, 23 June 2021). The field of farmer Mr. Raed Basheer was found to be irrigating more than the water requirement of tomatoes, despite the fact that the area is water scarce. The extension officers suggested the following remedial measures: 1) replace deteriorated emitter parts, 2) replace leaking tubes, and 3) encourage irrigation according to the water requirements of each crop. Since then, the South Hebron DOA has continued to visit farmers in the region and diagnose the drip irrigation tube network in order to improve the efficiency of agricultural water supply.

10) The 4th Cycle: Extension Step 7: Profitability Assessment

a) The 4th Cycle: Pre-training guidance to DOAs



Pre-training guidance about implementation procedures of profitability assessment was conducted for extension officers of the 4th Cycle DOAs: Bethlehem, Hebron, North Hebron, South Hebron and Yatta (14 December 2021). Many practical questions and comments on procedures and questionnaire forms were given by participant extension officers.

b) The 4th Cycle: Extension Step 7: Workshops for target farmer groups

Workshops of profitability assessment for the target farmer groups of the 4th Cycle were conducted (December 2021). Extension officers of DOAs facilitated the workshops and requested participants to fill in the questionnaires. Please refer to Chapter 6 for results and analysis of the data. Details of the results are also shown in Attachment 6-5.

(9) Online Training in Japan

Since consumer needs for safe crops have been increased in Palestine and MOA is required to promote producing safe crops. In order MOA to know cases of safe crop production with environmentally-sound agriculture in Japan and to deepen understanding on this issue for setting its future direction, series of

online seminars were conducted for agriculture extension related officers in Palestine. These seminars were regarded as substitute of "Training in Japan" which was originally planned but cancelled due to pandemic of COVID-19. These seminars connected participants of MOA/DOAs to lectures in Japan through online and made their communication easy by assigning a Japanese – Arabic interpreter.

1) 1st Seminar: Outline of Agriculture in Japan and Environmentally-sound Agriculture Technology (25 October 2021)

Lectures on outline of agriculture in Japan, production and distribution of sale and reliable agriculture products, and use of pesticide and fertilizer were given from lectures in Japan.

Topic: Cases of appropriate use of pesticide and fertilizer in Japan



Contents:

① Production and distribution of sale and reliable agriculture products in Japan (Ms. Riera, Nippon Koei)
- Characteristics of agriculture and current use of pesticide and fertilizer in Japan
- 3 major approaches: i) GAP implementation for export purpose, ii) production area development for wholesale market, and iii) sustainable agriculture techniques for direct selling

② Cases of environmentally-sound agriculture technology (Mr. Wakui, Ashita Organic Farm)
- Disease and pest control with IPM and without chemical fertilizer
- Use of compost and organic fertilizer (*bokashi*)
- Grafted seedlings of fruit vegetables and cultivation of various crops (mix cultivation)

Around 40 officers of MOA/DOAs attended the seminar. Questions regarding usage standard of pesticide and fertilizer in Japan, method for making compost, mix cultivation, etc. were raised by participants. The seminar gave an opportunity for participants to obtain ideas on producing safe crops without relying on pesticide.

2) 2nd Seminar: Cases of appropriate use of pesticide and fertilizer by developing production area (1 November 2021)

Cased of development of production area and appropriate use of pesticide and fertilizer taken by the agriculture extension center and the JA in Ibaraki Prefecture were presented in the 2nd Seminar.

Topic: Appropriate use of pesticide and chemical fertilizer by the agriculture cooperative in Japan – case of developing production area



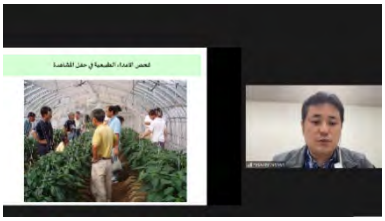
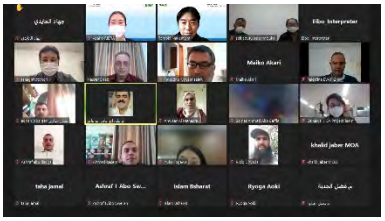
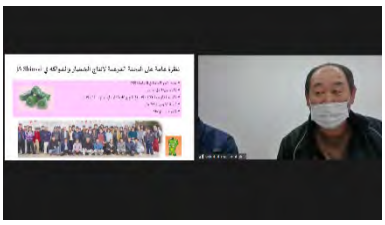
Contents:

① Actions for disseminating environmentally-sound agriculture taken by Ibaraki Prefecture (Mr. Takagi, Hokota Extension Center)
- Case of establishing hydroponic soil cultivation system and considerable points for agriculture extension

② Cases of developing green pepper production area and appropriate use of pesticide and chemical fertilizer (Mr. Numata and Mr. Hara, JA Namegata Shiosai)
- Activities of fruit & vegetable production sub-committee of JA JA Namegata Shiosai
- Background and methods leading to appropriate use of pesticide and fertilizer

Around 60 officers of MOA/DOAs attended the seminar. Questions were asked and answered on systems for usage standard of chemical fertilizer and pesticide in Japan (JAS standards for organic vegetables, specially-cultivated agricultural products, Eco-Farmers, GAP, etc.), heating method for cultivation in greenhouse and its profitability, decrease in use of nitrogen fertilizer by applying

hydroponic soil cultivation system, control of use of pesticide considering effects on enemy insects, year-round cultivation in greenhouses, countermeasures for salinization in coastal agricultural land, etc.


3) 3rd Seminar: Introduction of simple analytical tools by Japanese manufactures, Case for promoting safe agriculture crop production in other countries (4 November 2021)

Simple analytical tools which could be applied for appropriate use of chemical fertilizer and enhancing quality of crops in Palestine case for promoting safe agriculture crop production in other counties were presented in the 3rd Seminar.

Topic: Introduction of simple analytical tools by Japanese manufactures, Case for promoting safe agriculture crop production in other countries

Contents:

① Introduction of simple analytical tools for conserving soils and improving quality of crops (Ms. Ito, Atago Co., Ltd.)
- Features of analytical tools of Atago
- Introduction of simple soil diagnostic tools
- Introduction of simple non-destructive brix meters

② Case for promoting safe agriculture crop production in other countries (Mr. Nanakubo, Nippon Koei)
- Introduction of "Project for Improvement of Reliability of Safe Crop Production in the Northern Region of Viet Nam"






Around 40 officers of MOA/DOAs attended the seminar. Regarding simple analytical tools introduced, questions were asked and answered on how to buy these tools in Palestine, business agents dealing with these tools in the Middle East region, their prices and maintenance costs, instruction manuals in Arabic, etc. Regarding the project case of Viet Nam, questions were asked and answered on counterpart organizations, method for facilitating farmers' participation in cooperative activities, selection method of target crops, frequency of sampling/number of samples/cost for test of residual pesticides, price gap between safe crops and conventional ones, consumer needs for quality of crops, roles of public institutions for disseminating safe crop production system, etc.

(10) Monitoring on extension activities based on EVAP Extension package by 1st - 4th Cycle DOAs, support for incorporating EVAP Extension Package for target DOAs' Annual Extension Plans and for revising MOA Extension Strategy

Related activities were conducted as follows. The details of each activity are described in Chapter 3.

- Monitoring of extension activities based on the EVAP Extension Package by using the Palestinian authority's own funds.

- In the e-Guidelines, a website for the GDoERD administration department was developed, where manuals and forms related to the preparation of annual extension plans, budget applications, and expense processing procedures can be downloaded.
- In the e-Guidelines, it was decided to develop and assess a system to remind relevant parties of the timing of activities by sending notification messages.
- A system was established in the E-Guidelines for online monitoring of EVAP Extension Package related activities.
- Monitoring of the utilization of the Petty Cash system was conducted.

1) Monitoring and follow-up of extension activities by using Palestinian authority's own funds

Extension activities by DOAs themselves (2nd Round activities) had been stagnated since fiscal year of 2020 due to budget shortage of MOA. However, extension activities were restarted in August 2021 since DOAs could use two minibuses which was provided by JICA Palestine Office to MOA for study tours. Progress of these extension activities by DOAs themselves were monitored and necessary technical follow-ups were given in the period from August to December 2021.

(11) Exchange visits to Good Practice Farmers and Groups

The Project searches for “Good Practice Farmers” who practice market-oriented agriculture through self-help efforts, and then develops introduction sheets and a database of them. In the Extension Step 2: Awareness Creation Tour, the practical examples of good practice farmers were shown to the target farmers for motivating them to participate in the project activities and to change their behavior towards market-oriented agriculture. Related activities are as follows.

1) Collecting cases of Good Practice Farmers and holding a workshop to prepare introduction sheets




Mass Media Department of the GDoERD organized a workshop for extension officers of the 4th Cycle DOAs (Bethlehem, North Hebron, Hebron, South Hebron (Dura), and Yatta) on identifying good practice farmers and preparing introduction sheets (27 August 2019). First, Ms. Doha Aydi and Ms. Fatima Bawatneh explained the concept of farmer-to-farmer extension and conducted exercise to prepare introduction sheets for good practice farmers. They also introduced a database of the good practice farmers that is being developed on the web. In consideration of technology transfer among extension officers of DOAs, officers of Ramallah DOA of the 3rd Cycle were requested to explain their experiences and the effectiveness of farmer-to-farmer extension at the workshop.

2) Technology transfer to extension officers through interviews with Good Practice Farmers

As part of the preparation for Extension Step 2: Awareness Creation Tour in the 4th Cycle, interviews with good practice farmers were conducted and their introduction sheets were prepared. For transferring technologies such as know-how on interviewing methods to extension officers, officers of Mass Media Department and extension officers of 4th Cycle DOAs worked together on interview and introduction sheets.



Hebron DOA: A farmer who grows and ships mint year-round using a combination of open field and greenhouse cultivation（2019/9/23）



South Hebron DOA: Farmers who grow and ship cut flowers (red roses) in greenhouses based on market needs（2019/9/26）



Bethlehem DOA: Farmers use grafted seedlings to prevent soil-borne diseases and produce high quality cucumbers and tomatoes.（2019/9/29）



North Hebron DOA: Farmers who grow and ship a variety of grape varieties to meet market needs.（2019/9/30）



Yatta DOA: Farmers raising improved breeds of sheep with higher productivity to meet market needs.（2019/10/1）



Farmers introducing early grape varieties to increase shipping prices.（Hebron District）(2019/11/3)



Farmers grading and sorting grapes by variety for shipment.（Hebron District）(2019/10/30)



Farmers using waste oil heating to reduce lamb deaths and abortions during the winter.（Hebron District）（2019/11/5）



Farmers reducing feed costs through appropriate feeding programs and innovations in formula feeding.（Hebron District）(2019/11/5)

3) Interviews with Good Practice Farmers, preparation of introduction sheets and update of e-Guideline

In the joint terminal evaluation survey conducted in September – October 2021, it was recommended that cases of group activities and female farmers should be added to the list of “Good Practice Farmers”. Thus, officers of Mass Media Department interviewed additional 12 cases, prepared their introduction sheets and uploaded at e-Guideline. This could be thought as the results of capacity strengthening for securing





Interview with farmers by officers of Mass Media Department and DOA extension officers



Case of “Good Practice Female Farmer”” prepared by Mass Media Department

sustainability of the project activities. Number of cases of "Good Practice Farmers" became 84 in total, which could be utilized for spreading extension activities.













Additional 12 cases of "Good Practice Farmers":

*(*target farmer of EVAP-2)*

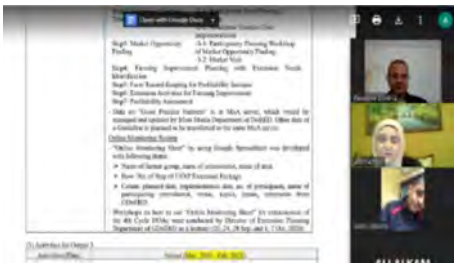
- *Livestock farmer introducing sucking machine for feeding lambs*
- *Livestock farmer group practicing group procurement of animal feed**
- *Livestock farmer applying A.I. on sheep**
- *Female farmer effectively practicing direct selling of vegetables under COVID-19 situation**
- *Female farmer group practicing revolving fund**
-
- *Female farmer group practicing group procurement and agro processing**
- *Female farmer breeding and selling Gundelia seedlings*
- *Female farmer producing and selling grape processed products with effective drying technique*
- *Farmer group producing and selling honey processed products for meeting market needs*
- *Livestock/grape farmer practicing market-oriented agriculture based on farm record*
- *Livestock farmer group practicing group procurement of animal feed*
- *Vegetable farmer group practicing group shipping of vegetable*

(12) Preparation and submission of monitoring sheets (every 6 months)

Monitoring of the Project is conducted every six months in collaboration with counterparts, and the results are compiled in a project monitoring sheet and submitted to JICA Palestine Office. The Monitoring Sheet Ver. 7 was prepared based on what were shared and approved at the 7th JCC by reporting the progress of inputs and activities, achievement of results, gender considerations, and other important issues from March 2019 to September 2019, and submitted to the JICA Palestine Office after discussed and agreed at the Monitoring Taskforce Meeting held on 2


The 7th monitoring taskforce meeting (2 October 2019)

October 2019. Although the JCC scheduled to be held in March 2020 was postponed due to effects of Covid-19, the progress from September 2019 to March 2020 has been summarized in Monitoring Sheet Ver. 8 and agreed upon by members of the Monitoring Task Force.



The 8th monitoring taskforce meeting
(22 March 2021)

Monitoring Taskforce Meeting (8th) was held online (22 March 2021) to discuss and approve Monitoring Sheet Ver. 9. This Sheet included the progress of inputs and activities, achievement of results, gender considerations, and other important issues from March 2020 to February 2021 based on what were shared and approved at the 8th JCC (December 2020).

Based on the results and recommendations by the joint terminal evaluation survey reported and approved in the 9th JCC (7 October 2021), Monitoring Sheet Ver. 10 (draft) was prepared. Monitoring Taskforce Meeting (9th) was held (11 October 2021) to discuss and approve the progress of inputs and activities, achievement of outputs/project purpose, etc. Then, the Sheet was submitted to JICA Palestine Office.



The 9th monitoring taskforce meeting
(22 March 2021)

(13) Support for implementing Third Country Trainings

1) Support for participation in the SHEP/ISMAP workshop held in Egypt

Ten officers of MOA participated in the SHEP/ISMAP workshop held in Egypt during 1~6 March 2020. The participating countries were Egypt, Morocco, Sudan and Palestine, and the participants were able to share their agricultural extension methods and know-how. The workshop also included a field visit to the ISMAP project implemented by the Egyptian government and interviews with beneficiary farmers. In the workshop, Mr. Salaheddin Albaba, General Director of GDoERD, gave an overview of the EVAP Extension Package on the first day, and on the last day, he introduced the implementation of government self-financed extension activities.













2) Support for participation to SHEP Approach International Online Workshop in Cairo

Officers of MOA participated in the SHEP Approach International Online Workshop in Cairo organized by JICA for Arab countries (15 March 2021). Mr. Salaheddin Albaba, Project Manager of EVAP-2 and General Director of GDoERD, gave a presentation on the EVAP-2 Project and the status of extension activities under the influence of COVID-19.



(14) Survey for evaluating results of the Project

1) Support for the joint terminal evaluation survey by JICA

EVAP-2 Team provided support to the joint terminal evaluation survey by arranging interviews with target farmers. Results of the survey are described in “Joint Terminal Evaluation Report on the Project on Improved Extension for Value-added Agriculture (EVAP Phase 2) (October 2021)”. Schedule of field survey and situation of interviews are as follows.

■ 1st Day of the Field Survey (28 September 2021)

1) Jensafout Women Extension Group (Vegetable farmer group, Qalqiliya)


Interview with farmers on extension activities by MOA/DOA themselves


Transplanted seedling of Gundelia (one of crops with high market demands)


Members of female group cultivating and processing Gundelia and Thyme and the extension officer suporting them


Female farmers and terminal evaluation survey team

2) Qalqiliya Livestock Extension Group (Livestock farmer group, Qalqiliya)


Interview with group members


Separation of sheep by growth stage


Expansion of animal barn with own fund by applying same layout taken by Good Practice Farmer

3) Good Practice Farmer in Qalqiliya (Vegetable farmer, Qalqiliya)


Visit to the field of Good Practice Farmer


Interview with Director of Extension Service Department, Qalqiliya DOA


Explanation by Good Practice Farmar

■ 2nd Day of the Field Survey (29 September 2021)

1) Baita Wholesale Market


Interview with wholesaler


Interview with wholesaler

2) Mothers' School Association in Al Badhan (Vegetable and fruit farmer group, Nablus)


Interview with female farmer group


Explanation by a female farmer on participation in decision-making in family


Explanation by a female farmer on contents of study tours

3) Beit Foreek Livestock Farmer Extension Group (Livestock farmer group, Nablus)


Interview with farmers on extension activities by MOA/DOA themselves


Visit to sheep raising barn of a target farmer

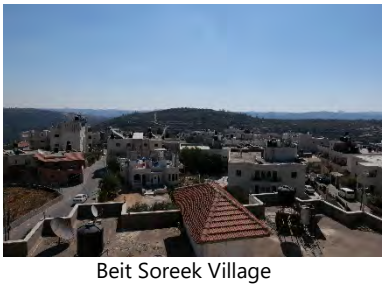

Courtesy call to General Director of Nablus DOA

■ 3rd Day of the Field Survey (30 September 2021)

1) Beit Soreek Farmer Extension Group（Fruit tree farmer group, Jerusalem）


Interview with farmers on extension activities by MOA/DOA themselves


Beit Soreek Village


Beit Soreek Village

2) Beit Liqia Women Extension Group (Vegetable farmer group, Ramallah)


Courtesy call to Mayor of Beit Liqia Village


Visit to extension activity (workshop) by MOA/DOA themselves


Interview with farmers attending extension activities

3) Salfit Olive Farmer Extension Group (Olive farmer group, Salfit)


Interview with farmers on EVAP-2 activities


Electric olive harvesting machine for decreasing workload

■ 4th Day of the Field Survey (2 October 2021)

1) Khobaizeh (vegetable retailer shop run by members of Frosh Beit Dajan Cooperative Association)


Visit to the retailer shop in Ramallah run by members of Frosh Beit Dajan Group


Group members running retailer shop


Display of vegetables produced in Frosh Beit Dajan

2) Ramallah Wholesale Market

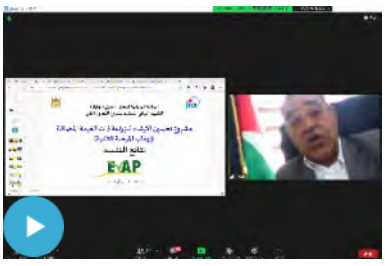

Interview with manager of Ramallah Wholesale Market


Visit to Ramallah Wholesale Market


Visit to Ramallah Wholesale Market

2) Online meeting to feedback results of the terminal evaluation survey to DOAs

Online meeting was held (2 November 2021) to feedback results of the terminal evaluation survey to DOAs. Outline of the evaluation survey, evaluation results by 6 evaluation criteria, recommendations to the Project, MOA and DOAs were shared in the meeting. Mr. Salaheddin Albaba, General Director of GDoERD, gave instructions to facilitate extension activities by DOAs themselves (2nd Round activities).



3) Site visit by JICA Palestine Office (29 March and 1 April 2021)





Officers from JICA Palestine Office made a field trip to visit vegetable farmers in Jericho and Nablus (1st Cycle), and livestock farmers in Salfit and Ramallah (3rd Cycle) supported by EVAP-2. They observed open-air vegetable cultivation in the warm Jordan Valley, vegetable cultivation in plastic greenhouses and direct sales business, sheep breeding technology, and sheep milk processing technology. They also exchanged opinions with extension officers from the Jericho, Nablus, Salfit, and Ramallah DOAs.

4) Follow-up for recommendations by the terminal evaluation survey

In response to the recommendations by the terminal evaluation survey, following actions were taken by the Project completion.

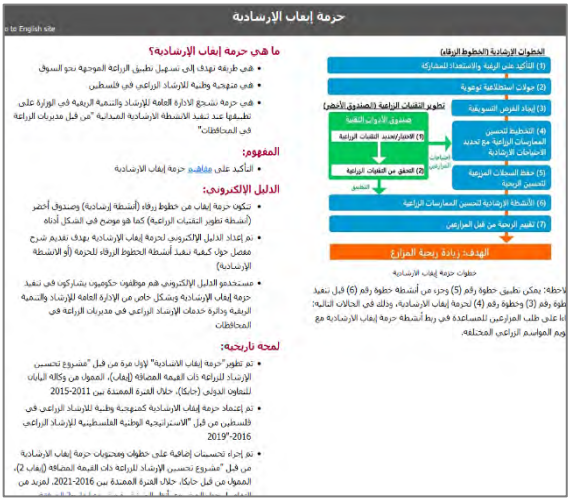
Table 2-2 Recommendations by the terminal evaluation survey and follow-up actions

Recommendations	Follow-up actions
(1) Revision of PDM	・ Recommended revision of PDM was approved in 9th JCC. Based on the revised PDM, Monitoring Sheet Ver. 10 was prepared.
(2) Improvements to EVAP e-Guidelines	・ Web page explaining essences of the SHEP approach (Self-Determination Theory and asymmetric information in the market) and essential 4 steps was added.
(3) Review of TOT materials and materials for farmers	・ Since extension activities by EVAP-2 had been almost completed by the time of the terminal evaluation, it was difficult to deal with this recommendation. ・ In the next phase, it plans to obtain feedbacks from farmers and extension officers, and to make necessary revision on the materials based on their feedbacks.
(4) Strengthen monitoring and technical support for the 2nd round activities	・ The 2nd round activities were restarted in July 2021 by using 2 minibuses provided by JICA Palestine Office to MOA. Since then, more than 30 extension activities have been conducted. EVAP-2 Team members (Japanese and Palestine) gave technical supports in accordance with necessity in field. ・ As a result of the field survey, it was found that the extension officers who have participated in the activities of EVAP-2 can carry out the activities smoothly and effectively. However, it was also found that the main issue was the transfer of technology to newly hired staff. Therefore, the EVAP-2 project team tried a seminar on technology transfer from senior extension officers to newly hired extension officers at Nablus DOA in December 2021. Senior extension officers were able to make specific technology transfers, including the current state of agriculture in the district, and it was thought that technology transfer within DOA would be possible if there was such an opportunity. ・ The EVAP-2 project team investigated the actual situation of the profitability assessment of Extension Step 7 conducted by DOAs in the 2nd round. Based on the results, the EVAP-2 project team has improved the tabulation sheet so that the results entered by the farmers can be easily entered only by DOAs. Specifically, in order to make input easier and avoid mistakes, cell input can be selected from the pull-down menu. In addition, input is limited to numbers as much as possible, and when input is made, it is automatically aggregated, and a graph is created. ・ In December 2021, EVAP-2 project team obtained and analyzed data from two farmer groups in the 2nd round that had completed Extension Step 7. Then, in January 2022, the results of the Extension Step 7 of the two farmer groups in the 2nd round were tabulated. As a result, EVAP-2 project team was able to confirm the results of agricultural income (Net Profit) as end line / baseline: 151.1% equivalent to that of the 1st round activities directly supported by the project. Therefore, EVAP-2 project team was able to verify the effectiveness of

Recommendations	Follow-up actions
	the current EVAP extension package. In addition, sales: 138.6%, production costs: 125.0%, and Net Profit Ratio (ratio of production costs to sales), which is important for farm management diagnosis, improved from 61.1% to 64.9%.
(5) Consideration of a less resource demanding EVAP Extension Package	・ According to Palestine custom, host should usually offer snack for guests. Thus, MOA/DOAs should offer snack for participant farmers at the training sessions, costs of which are matter of concerns. Since there were cases that costs for snack were divided into MOA/DOA and farmers, it is needed to examine feasibility of this method in the next phase.
(6) Establishment of management system, handing over tasks and knowledge sharing as an exit strategy	・ Japanese experts were unable to travel to Palestine in December 2021 due to effects of COVID-19. Thus, establishment of management system and handing over tasks to officers of MOA were done through online meetings. ・ Transfer of e-Guideline to the MOA server was unable to be done since Japanese exerts could not travel to Palestine. (Details are mentioned in Chapter 3, 3-4)
(7) Strengthen awareness raising on group activities and gender	・ Mass Media Department surveyed 6 cases of group and female farmers activities and compiled them as introduction sheets which could be used for future extension activities.
(8) Feedback on the results of Profitability Assessment	・ Results of Profitability Assessment were compiled as the presentation material and share it with target DOAs.
(9) Compilation of lessons learned on gender and social inclusion	・ Lessons on gender and social inclusion was included in the report on gender consideration (3rd Contract Period).
(10) Organizing a final seminar	・ Final Seminar was held on 19 January 2022. Most of presentations were done by MOA/DOA counterparts.

(15) Finalizing EVAP EP and support for revising MOA Extension Strategy

1) Updating a website to disseminate the EVAP Extension Package guidelines and technical training materials

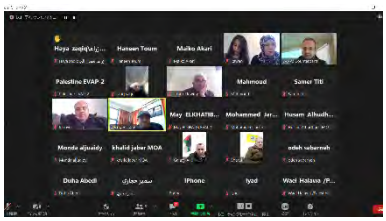
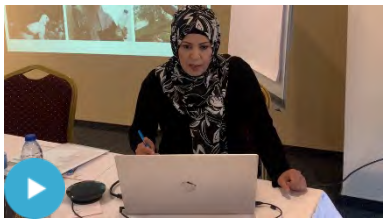


A web-based electronic guideline (e-guideline) for the EVAP Extension Package was developed so that Palestinian officials can access the latest guideline from their own smart phones and computers, and technology transfer was conducted so that the Palestinian authority can operate and manage it. In the third contract period, under the guidance of Japanese experts, the GDoERD counterparts (officers of the Mass Media Department) took an initiative in adding and updating cases of good practice farmers in the southern areas of the West Bank. As a result, the website now covers cases of good practice farmer in the entire West Bank. The details are described in Chapter 3.

2) Support for revising MOA Extension Strategy

MOA worked on revising “The Palestinian National Agricultural Extension Strategy (PNAES) (2016-2019)” for the one after FY 2021 and EVAP-2 Team provided information in accordance with necessity. However, revision work for finalizing this Strategy has been suspended since outbreak of COVID-19 in 2020 since MOA judged that its contents were not matched to the real situation.

(16) Holding of the final seminar


The EVAP-2 project team held the final seminar on January 19, 2022. It was done online using Zoom due to the influence of COVID-19. Donors (19 institutions) and NGOs (11 institutions) supporting the agricultural sector in Palestine were invited, and the total number of participants was 150 including MOA staff and Japanese experts. The main contents of the final seminar were the background and approaches of the project, the introduction of the project activities by video, the introduction of the main results of the project (good practice farmer introduction website, progress of extension activities funded by the Palestinian government, video message by DOA extension officers and farmers. The following table shows the agenda of the final seminar.

Table 2-3 Agenda of the Final Seminar

Agenda	Presenter
Opening Address	Mr. Salaheddin Al-Baba, General Director, GDoERD
	Mr. Toshiya Abe, Chief Representative, JICA Palestine Office
Session 1: Outline of EVAP Project	
(1) Background and approaches of EVAP-2	Mr. Tomoki Nakamura, Chief Advisor, EVAP-2
(2) EVAP2 activities with video presentation	Mr. Amin Abu-Alsoud, EVAP-2
Session 2: Outcomes/Achievements of EVAP-2 Project	
(1) Introduction of Good Practice Farmers (GPFs) Database and extension materials and brochures	Ms. Doha Abdi, Mass Media Department, GDoERD
(2) Progress of EVAP EP activities by MOA/DOA themselves	Mr. Salaheddin Al-Baba, General Director, GDoERD
(3) Voices from DOA about EVAP EP activities and their achievements	Representatives from DOAs
(4) Voices from target farmers with interview video	-
Session 3: Clarification and Discussion	-
Session 4: Wrap-up and Closing	Mr. Salaheddin Al-Baba, General Director, GDoERD

(17) Preparation of the Project Completion Report

The activities from July 2019 to January 2022 were compiled as the Project Completion Report (the 3rd contract period) (this report).

Chapter 3 EVAP Extension Package

3-1 Concept of EVAP Extension Package

The following figure shows the EVAP Extension Package which was developed in EVAP-1 and revised in EVAP-2. The processes of the revision were described in the Chapter 3 of Progress Report (The 1st Contract Period). EVAP Extension Package generally contains **A. Extension Step ("Blue Line")** and **B. Technology Development ("Green Box")**, which are connected each other. It means that extension activities and technology developments are closely connected in the EVAP Extension Package.

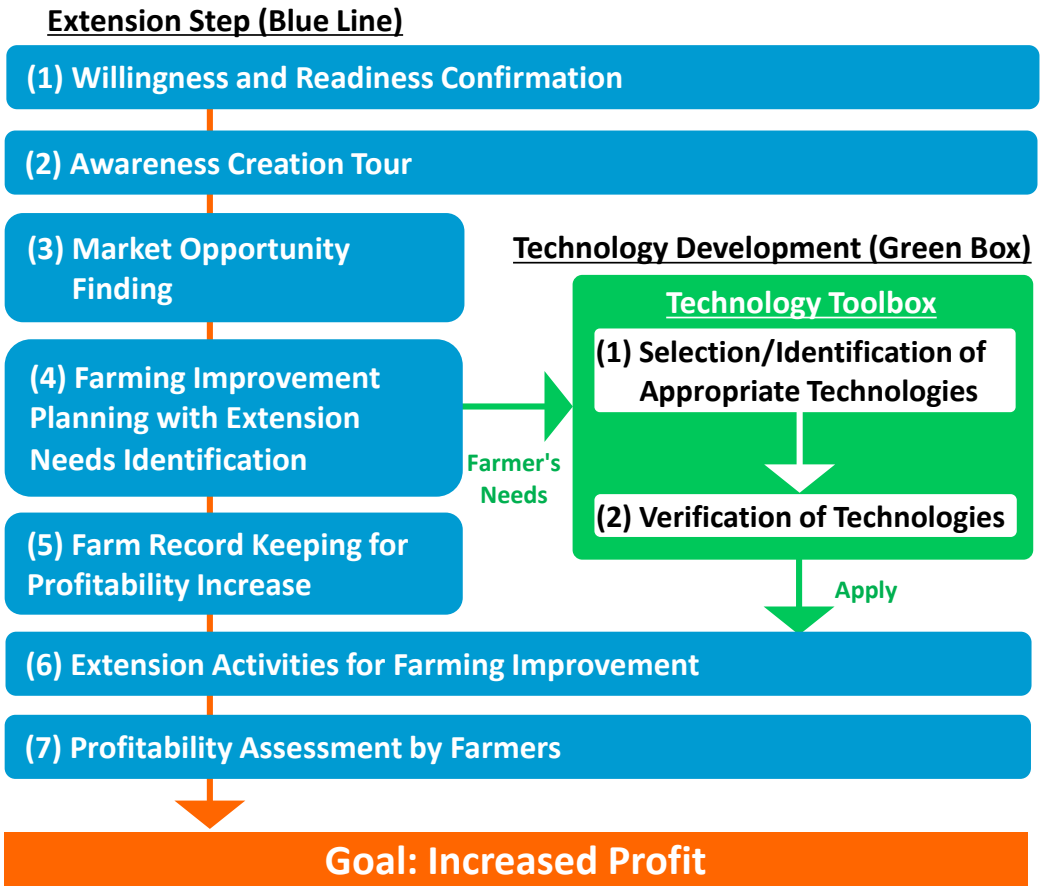


Figure 3-1 EVAP Extension Package

A. Extension Step (Blue Line):
(1) Extension Step 1: Willingness and Readiness Confirmation
(2) Extension Step 2：Awareness Creation Tour
(3) Extension Step 3：Market Opportunity Finding
(4) Extension Step 4：Farming Improvement Planning with Extension Needs Identification
(5) Extension Step 5：Farm Record Keeping for Profitability Improvement
(6) Extension Step 6：Extension Activities for Farming Improvement
(7) Extension Step 7：Profitability Assessment
B. Technology Development (Green Box):
(1) Selection/Identification of Appropriate Technologies
(2) Verification of Technologies

Other characteristics of the EVAP Extension Package are summarized as follows.

- Extension activities are packaged with fixed order.
- The Package was established for group extension with "Open Access" concept (any farmer can join activities at any time)
- The Package focuses on creating/strengthening network, such as Farmer-to-Farmer networks and Farmer-to-Business Partner networks.
- Extension activities are provided based on farmers' motivation and needs.
- The Package is gender mainstreamed.

The following figure shows the correspondence of SHEP Approach and the EVAP Extension Package. SHEP Approach is an extension method which was developed by JICA and mainly composed of four steps: 1) Select target farmers and share aims, 2) Create opportunities for awareness, 3) Farmer-led decision-making, 4) Providing technical solutions.

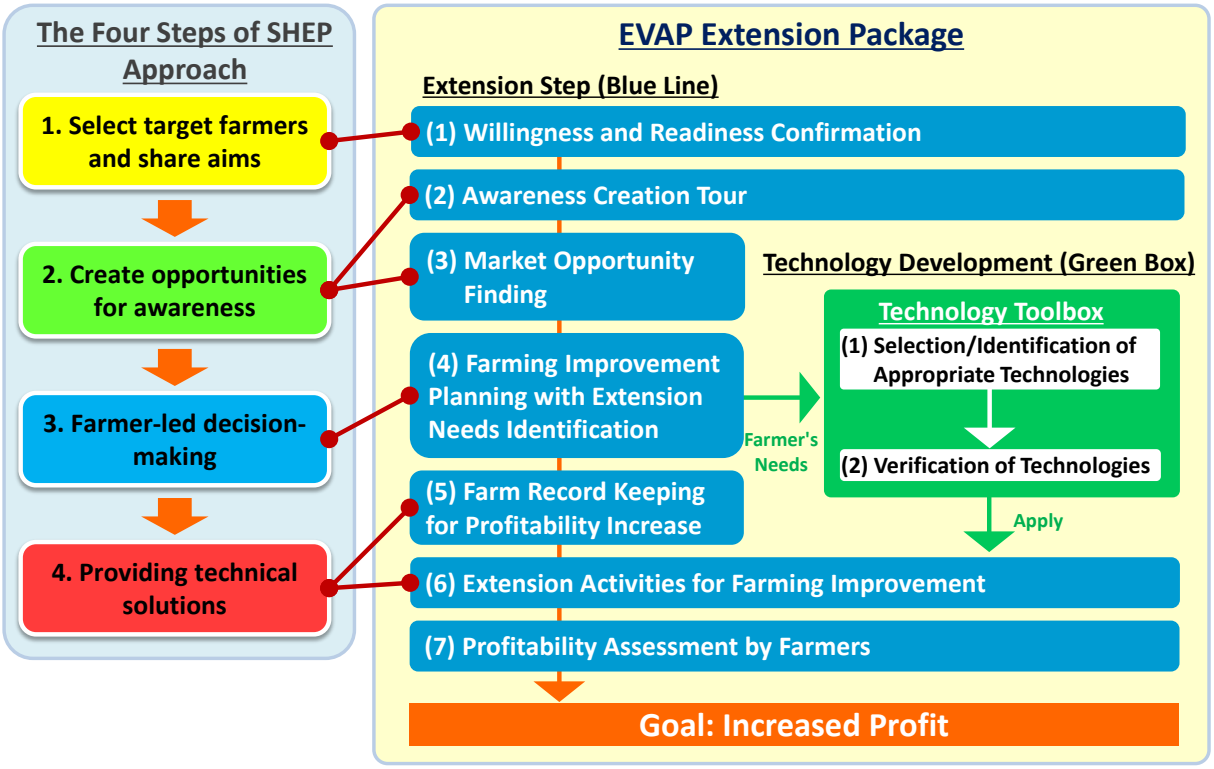


Figure 3-2 Correspondence of EVAP Extension Package and the four steps of SHEP approach

The specific way of utilizing the SHEP approach to the project is shown in the following table.

Table 3-1 Summary Table for Utilizing the SHEP Approach in EVAP-2

The four steps to enhance farmers' motivation	Extension Steps in EVAP-2	Key Activities *(related to the Key Concepts)*	Key Concepts to motivate farmers		
			1) Autonomy	*2) Competence*	*3) Relatedness*
1. Select target farmers and share aims	Step-1: Willingness and Readiness Confirmation	• Preparation of a long list of local potential farmer groups			
		• Prioritization of farmer groups according to criteria for transparency of target farmer selection process			
		• Making farmers understand the concepts of EVAP Extension Package and its related activities and confirming farmers' interest and willingness to participate in the activities			✔
2. Create opportunities	Step-2: Awareness	• Participatory planning workshop for Awareness Creation Tour	✔		

The four steps to enhance farmers' motivation	Extension Steps in EVAP-2	Key Activities *(related to the Key Concepts)*	Key Concepts to motivate farmers		
			1) Autonomy	*2) Competence*	*3) Relatedness*
for awareness	Creation Tour	● Awareness Creation Tour to visit Good Practice Farmers practicing market-oriented agriculture and exchanging opinions among farmers		✔	✔
	Step-3：Market Opportunity Finding	● Explanation of the simple market analysis method that farmers themselves can practice		✔	
		● Participatory planning workshop for Market Visit (Farmers can select the destination such as wholesale markets, retail stores, agricultural material suppliers, and agricultural processors.)	✔		
		● Market visit by farmers to understand market needs and characteristics before the farming season and to find new markets and customers/consumers	✔	✔	✔
3. Farmer-led decision-making	Step-4：Farming Improvement Planning with Extension Needs Identification	● Making farm improvement plans by individual farmers	✔		
		● Making group technical training plans by farmer groups	✔		
4. Providing technical solutions	Step-5：Farm Record Keeping for Profitability Improvement	● Farm record training to introduce the two types of record book: simple book and detailed book, according to the capacity of farmers		✔	
	Step-6：Extension Activities for Farming Improvement	● Implementation of technical trainings for the farmer groups by the extension officers in line with the technical training plans formulated by the farmer groups			✔
		● Technical trainings for farm improvement (Farmers can choose from two types of training: A to Z training tailored to their capacity and training focused on specific issues.)		✔	
		● Additional study tour to learn technologies of Good Practice Farmers, if selected by the farmer groups		✔	
		● Business matching related to agricultural products selected by farmers groups, if selected by the farmer groups			✔
		● Price negotiation technical trainings and sales promotion trainings, if selected by the farmer groups		✔	

Note: Recognition of the three psychological needs:
Autonomy: To apply participatory approach by farmers
Competence: To prepare activities and training materials that match the capacity level of the farmers
Relatedness: To create opportunities for information and knowledge sharing between farmers and farmers, farmers and extension workers, farmers and market stakeholders etc.

3-2 Content of EVAP Extension Package

A. Extension step (Blue Line)

Contents of the EVAP Extension Package (Blue Line) are as follows.

(1) Extension Step 1: Willingness and Readiness Confirmation

The purposes of the step are as follows and the material of the step is attached as Attachment 3-1.

- To select target farmer groups for extension activities following clear criteria from a long list of farmer groups which are in an area.
- To make farmers understand the concept of EVAP Extension Package and its related activities and to confirm interests and willingness of farmers

■ To prepare gender consideration method for each farmer group considering their social environments (participatory gender consideration by extension officers)

(a) Extension Step 1-1: Selection of Target Farmer Groups

Extension Step 1-1: Selection of sub-sector and target farmer group



1) To decide target sub-sectors in accordance with annual extension plans of DOAs and nomination of candidate farmer groups
   - To confirm sub-sectors for extension activities and reasons
   - To confirm selection criteria
   - To prepare the lists of candidate target farmer groups by sub-sector (If DOAs already have these lists, please utilize them).
   - To prioritize and select target farmer groups
   - To confirm schedule for next activities
2) To confirm schedule of next activities
   - To confirm detailed schedule of meeting with the selected farmer groups
3) To confirm outline and procedure of the workshop with farmer groups
   - How to explain the outline of EVAP Extension Package
   - How to confirm conditions and requirement of farmer groups for EVAP Extension Package
   - How to facilitate the data collection on farming situation and analyze it

(b) Extension Step 1-2: Willingness and Readiness Confirmation Workshop

As a next step, the following meeting is held for the selected farmer groups by extension officers of DOAs as facilitators.

Extension Step 1-2: Procedure of Willingness and Readiness Confirmation Workshop:

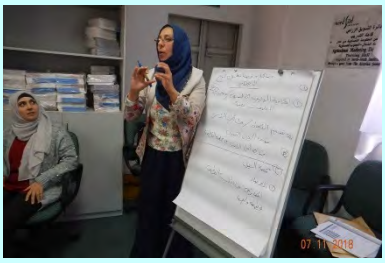


1) To explain objectives of the workshop.
2) To explain outline of EVAP Extension Package with using Project Leaflet.
3) To explain requirements for participating farmers and confirm their intentions with using the Willingness Confirmation Sheet.
4) To ask farmers to give their basic data with filling Format-1A for registration.
5) To ask farmers to choose a group leader and/or contact persons.
6) To explain 5 external information and 3 internal information to be considered by farmers for their farming.
7) To distribute Format-1B and request farmers to fill in the Format.
8) To have group exercise to discuss “what information is lacking?” and “what information should be collected from the EVAP?”.
9) To conclude that EVAP would bridge this information gap through a series of activities including tours and technical trainings.

(c) Extension Step 1-3: Discussion on gender awareness and consideration

In Palestine, social environments and customs differ greatly by region, ethnicity and religion, and it is necessary to consider gender considerations individually for each farmers group. In this step, DOAs shall make gender consideration measures for each farmer group respectively.

Extension Step 1-3: Procedure of Discussion on Gender Awareness and Consideration:



1) Introduction
- Concept of gender
- Importance of women in agriculture
- Necessity of gender consideration in agriculture

2) Gender Consideration in EVAP-2
- Gender needs to be achieved by EVAP-2
- Gender viewpoints to be considered in EVAP Extension Package
- Gender considerations in EVAP Extension Package
- Group Discussion

3) Introduction of Gender Analysis Tools
- Activity Profile
- Daily Activity Calendar
- Access to and Control of Resources

4) Joint Evaluation with Gender Viewpoints

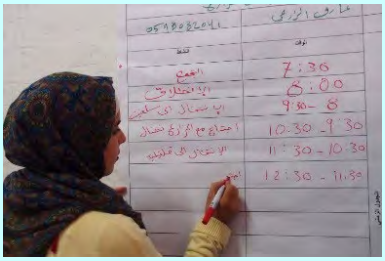
(2) Extension Step 2: Awareness Creation Tour

The purposes of the step are as follows and the material of the step is attached as Attachment 3-2.

- To make farmers understood what successful market-oriented agriculture is
- To motivate farmers to join EVAP activities

(a) Extension Step 2-1: Participatory Tour Planning Workshop

Extension Step 2-1: Procedure of Participatory Tour Planning Workshop



1) Make farmers understand that they are visiting Good Practice Farmers in the coming activity.
2) Provide brief explanation on related Good Practice Farmers to farmers by using the presentation.
3) Ask farmers which Good Practice Farmers they are interested in.
4) Guide farmers to read the Good Practice Farmer introduction sheet which they are interested in.
5) Prepare "Plan of Awareness Creation Tour" by using Format-2A based on farmers' interest. Extension officers need to facilitate the group exercise. It should be noted that farmers should avoid selecting "inactive" Good Practice Farmers.
6) At the end of the workshop, DOA extension officers need to explain farmers that it is necessary to confirm availability of Good Practice Farmers on the proposed date. If Good Practice Farmers will not be available on the day, date of the tour needs to be changed.
7) After closing the workshop, DOA extension officers should communicate with DOAs to be visited and make appointment with Good Practice Farmers and other necessary arrangements.
8) The Director of Extension Department of DOA should send an e-mail to the 1) Director General of GDoERD and cc. to 2) Director of Extension Planning Department at GDoERD, 3) Director General of DOA and 4) Directors of Extension Department of DOAs to be visited to make them aware of the plan. Plan of the tour prepared by farmers need to be attached to the e-mail.

(b) Extension Step 2-2: Awareness Creation Tour Implementation

Extension Step2-2：Awareness Creation Tour Implementation:



1) Facilitate participants to maximize farmer-to-farmer discussion.
2) Listen farmer-to-farmer discussion to understand their actual needs.
3) After conducting the tour, the Director of Extension Department of DOA should send an e-mail to the 1) Director General of GDoERD and cc. to 2) Director of Extension Planning Department at GDoERD and 3) Director General of DOA to report the situation.

(3) Extension Step 3 : Market Opportunity Finding

The main purposes of the step are as follows and the material of the step is attached in Attachment 3-3.

- Make farmers understand the importance of gasping market needs and characteristics and making marketing strategy to sell your farm products before the cropping season.
- Motivate farmers to identify new markets and customers/consumers for farm profit increase

(a) Extension Step 3-1: Participatory Tour Planning Workshop

Extension Step 3-1: Participatory Tour Planning Workshop



1) To facilitate the group exercises by farmers for market categorization of their products. To make farmers understand characteristics, recommended marketing strategies and important market information that vary according to the type of market.
2) To prepare "Plan of tour: Market Opportunity Finding" based on farmers' interest.
3) To explain farmers that it is necessary to confirm availability of market actors on the proposed date at the end of the workshop. If they will not be available on the day, date of the tour needs to be changed.
4) To arrange the planned tour with DOAs in which the selected market is.
5) The Director of Extension Department of DOA should send an e-mail to the 1) Director General of GDoERD and cc. to 2) Director of Extension Planning Department at GDoERD, 3) Director General of DOA and 4) Directors of Extension Department of DOAs to be visited to make them aware of the plan. Plan of the Market Opportunity Finding prepared by farmers need to be attached to the e-mail.

Extension Step3-1：Contents of Market Opportunity Finding

1) Exercise on segmenting agricultural markets

- In accordance with the number of customers and competitive producers, agricultural markets in Palestine can be categorized into 4 major ones which have different characteristics and require different marketing strategies.
- The session was also set where farmers themselves categorize some crops by using this flow chart.

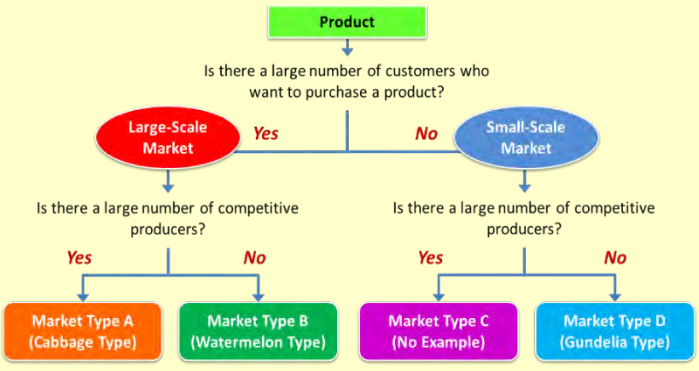


Figure 3-3 Flow for Segmenting Agricultural Markets in Palestine

2) Different characteristics of markets and marketing strategies

- Agricultural markets in Palestine can be categorized into following 4 types, which have different characteristics and require different marketing

strategies as follows.

Type of Market	Market Type A (Cabbage Type)	Market Type B (Watermelon Type)	Market Type C (No Example)	Market Type D (Gundelia Type)
Characteristics	・ Normally, Farmers can sell large amounts of products. ・ Sold amount and price are drastically change depending on demand/supply by season. ・ Most products are transacted by box. ・ Most products are monopolized by several major traders.	・ Most of the products can be sold at higher price, BUT.... ・ Production techniques tend to be rather difficult compared to other common crops. ・ Farm inputs including labor and initial investment tend to be more than other common crops. ・ Most products are transacted by kg. ・ Traders themselves are willing to come and buy	・ Most of the products are either sold at much lower price or unsold.	・ Most of products can be sold at stable price, BUT.... ・ Increase of number of producer and amounts of products cause higher decreases in sales and price. ・ Loss of consumers causes large decreasing in sales.
Recommended Marketing Strategy	・ Shifting transplanting time ・ Adjusting selling time ・ Group selling of products to increase selling price ・ Reducing production cost	・ Increasing yield ・ Increasing quality of products ・ Improving packing and branding ・ Selling products to more profitable wholesale markets	・ Changing products	・ Continuing to meet customers' needs ・ Finding new customers ・ Direct selling to retailers and consumers
Important Market Information	・ Price fluctuation	・ Quality of products ・ Price in more profitable wholesale markets in other areas	・ None	・ Quality of products ・ Demanded Volume

(b) Extension Step3-2: Market Visit

Extension Step 3-2: Procedure of Market Opportunity Finding:



1) Visit selected markets according to the plan for Market Opportunity Finding.
2) Facilitate the potential business partners to introduce farmers the latest market information including examples of crops, animals/products as per their Market Types.
3) Encourage farmers to communicate with the potential business partners to get market information of the target crops, animals/products as much as possible in reference to Market Opportunity Finding Questionnaire Format (Format-3A-1/2/3).
4) After conducting the tour, DOA extension officers ask farmers to analyze and make conclusions about the findings.
5) The Director of Extension Department of DOA should send an e-mail to the a) Director General of GDoERD and cc. to b) Director of Extension Planning Department at GDoERD and c) Director General of DOA to report the situation.

(4) Extension Step 4：Farming Improvement Planning with Extension Needs Identification

The main purposes of the step are as follows and the material of the step is attached in Attachment 3-4.

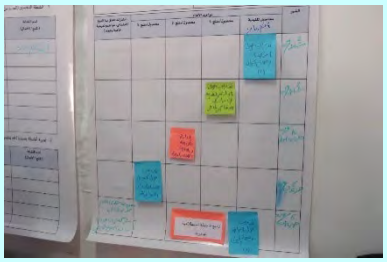
- To prepare "individual farming improvement plans" using information acquired in Extension Step 2：Awareness Creation Tour and Extension and Step 3：Market Opportunity Finding
- To prepare "a group extension plan" with farmers to identify extension needs of farmers

The outline of the step are as follows:

Extension Step4: Farming Improvement Planning with Extension Needs Identification

1) Extension officers recall what farmers learned in the previous EVAP activities: Extension Step2：Awareness Creation Tour and Extension Step3：Market Opportunity Finding
2) Extension officers instruct farmers to select target crops/products based on their potential for improvement (not based on current practices).
3) Extension officers guide farmers to prepare individual farming improvement plans.
4) Extension officers aggregate number of crops/products which are interested by farmers
5) 3 or less crops/products can be selected for production trainings. Farmers choose 1 existing and 1 new crops/products. Then they should choose additional one either from existing or new.
6) There should be 5 or more interested farmers for the existing and 3 or more for the new, otherwise production training will not be provided. Business related trainings can be provided even in this case, since it is common for all the types of crops/products.
7) Visit "Step-6 eGuidelines" to understand what kinds of trainings can be considered. (Note: If farmers request a new training topic, extension officers need to prepare the training material together with technical departments of GDoERD.)
8) Extension officers prepare an extension plan together with farmers.
9) Extension officers should capture special training needs of farmers.
10) Extension officers should explain to farmers that DOA will analyze possibility and appropriateness of the extension plan. Farmers might be asked to reconsider the plan, if it is necessary or appropriate.
11) The Director of Extension Department of DOA should send an e-mail to the 1) Director General of GDoERD and cc. to 2) Director of Extension Planning Department at GDoERD and 3) Director General of DOA to make them aware of the extension plan. Final extension plan needs to be attached to the e-mail.







(5) Extension Step 5：Farm Record Keeping for Profitability Improvement

The main purposes of the step are as follows and the material of the step is attached in Attachment 3-5

- To identify profitable crops and non-profitable crops by keeping Financial Record and Farm Practice Record
- To identify issues on farming practice such as high-cost items

The outline of the step are as follows:

Extension Step5：Farm Record Keeping for Profitability Increase:

1) Concept

- To make understand farmers importance of keeling record and its necessity
- To prepare two types of the record methods: simple methods and detailed methods depending of farmers capacity
- To prepare the record methods which can also be used as baseline and end line data to evaluate the activities

in EVAP-2

2) Considered points

· At the beginning, the project team interviewed farmers who had been keeping farm record by themselves to survey their purpose, methods, how to use it. Then, the project team prepared the method of farm record based on their experience in Palestine. Their major purposes of record keeping were as follows:

a) To keep income and expenditure of farming to continue and/or expand profitable crops and quit non-profitable crops in next year by comparison among crops

b) To keep farming activity to continue successful farming activity

· To develop an simple method using normal notebook for sustainability of the method



Farm Record and Field Notebook prepared by EVAP-2

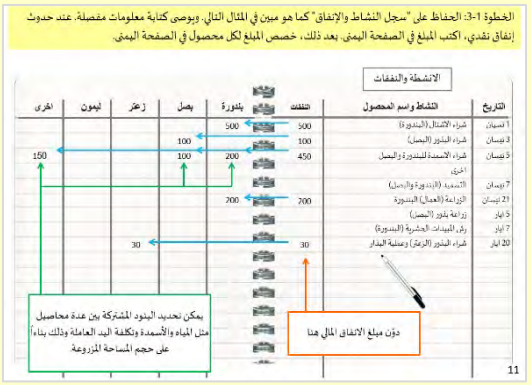


Image of simple farm record method using normal notebook

(6) Extension Step 6：Extension Activities for Farming Improvement

The major purposes of the step are as follows and the list of the prepared technical training manuals are shown in Attachment 3-6:

- To prepare training materials and carry out technical trainings based on training plans prepared in Extension Step 4：Farming Improvement Planning with Extension Needs Identification for farm profit increase

In the step, Palestine officers and Japanese experts who familiar with each technical field prepared training materials utilizing existing materials in Palestine to avoid discrepancy. The preparation team held technical taskforce meetings to discuss well on the contents with Palestine officers and confirm their intension before finalization. The following points were noted in preparation of the training materials.

The Five Viewpoints for Individual Farmer's Evaluation on Technologies:

1) **Comparative advantages**: Superiorities compared to existing/traditional ideas and technologies.
2) **Applicability**: New technologies are better to be close to the existing ones since technologies requiring substantial changes are difficult to be adopted by farmers who are usually conservative.
3) **Understandable**: Technologies which farmers could easily understand are also easily adopted by farmers.
4) **Possibility for trial**: Technologies which could be used with trial bases (e.g. being introduced to small area of farm land) are easily adopted by farmers.
5) **Visibility**: Results of introducing technologies would be visualized (e.g. Profits would be digitalized with charts by such utilizing crop budgets).

(7) Extension Step 7：Profitability Assessment

The main purposes of the step are as follows and the material of the step is attached in Attachment 3-7.

- To evaluate outputs of activities in EVAP-2 including PDM indicators
- To evaluate indicators designated in the policy documents of Palestine

■ To get feedback from farmers to improve EVAP-2 project activities by MOA/DOAs for improvement

a) Extension Step 7：Profitability Assessment

Extension Step 7：Contents of Profitability Assessment

(Note: Farmers can answer almost all the items by checking boxes.)

1) **Basic Information:** Name, Sex, Number of labor force in family, Tel. Number, whether farming is major income source or not.
2) **Information Use:** Situation of information use and person who collect information for farming before/without and after/with EVAP-2 by sex in family
3) **Satisfaction of Extension Step**: Farmers' satisfaction by four grade evaluation, situation of introducing technologies acquired in EVAP-2 to farmers' practices
4) **Evaluation of gender consideration:** Evaluation of gender consideration policy of EVAP-2: (a) Improving women's access/control to resources including training opportunities, (b) Enhancing work efficiency and productivities in farm households, (c) Facilitating women's involvement in decision-making in family, (d) Facilitating gender awareness of men and local communities
5) **Problem solution:** Problems on marketing, farm input, labor etc.
6) **Farm profits:** (a) Actual farm profit in last year (end line), (b) Estimated farm profit in case that the farmers did not participate in EVAP-2 or before patriating EVAP-2 (baseline), (c) profit difference between end line and baseline
7) **Diagnosis of farm management indicators and suggestion:** Suggestion based on farm management indicators calculated in item 6) for future improvement.
   - *"Low profitability (productivity and sales per area or head)" => Suggestion: Increasing production unit: area/head)*
   - *"Low ratio of sold amount per produced amount" => Suggestion: Improving product quality, etc.*
     "Low selling price" => Suggestion: Increasing selling amount, etc.
   - *"High production cost per area or head" => Decreasing production cost, etc.*
   - *"Low profit per area or head" => Improving low indicators mentioned above.*



8) **Comments on EVAP-2 activities and/or government extension services**

The following points were taken into consideration to evaluate properly output of extension activities in Palestine.

b) Analysis of Extension Step 7：Profitability Assessment

In analysis of the questionnaire results, the following points were considered.

Important Points in Analysis of Questionnaire Survey of Extension Step7：Profitability Assessment:

- In general, farm profit increase is achieved by the process of 1) getting information, 2) applying information and 3) increase of farm profits. Therefore, the project team prepare the questionnaire formats include 1) situation of getting information, 2) situation of information apply to farming practice, 3) situation of problem solution and 4) change of farm profit. If farm profits are not improved, we could identify bottleneck in the process for next measures.
- The project team evaluated the results of gender consideration EVAP-2 by analysis of 1) change of accessibility to trainings, 2) improvement of labor productivity in family, 3) involvement in decision-making in family and 4) improvement on gender awareness in local communities.
- In the questionnaire, the project team asked farmers difference between two figures: 1) actual farm profits

in the second season after participation in EVAP-2 (case of "with") and 2) farm profits in case that the farmers did not participate in EVAP-2 (case of "without").

B. Technology development (Green Box)

The concept of technology development (Green Box) as of the end of June 2019 are as follows. Related activities are also described in the Chapter 5.

(1) Selection / Identification of Appropriate Technologies

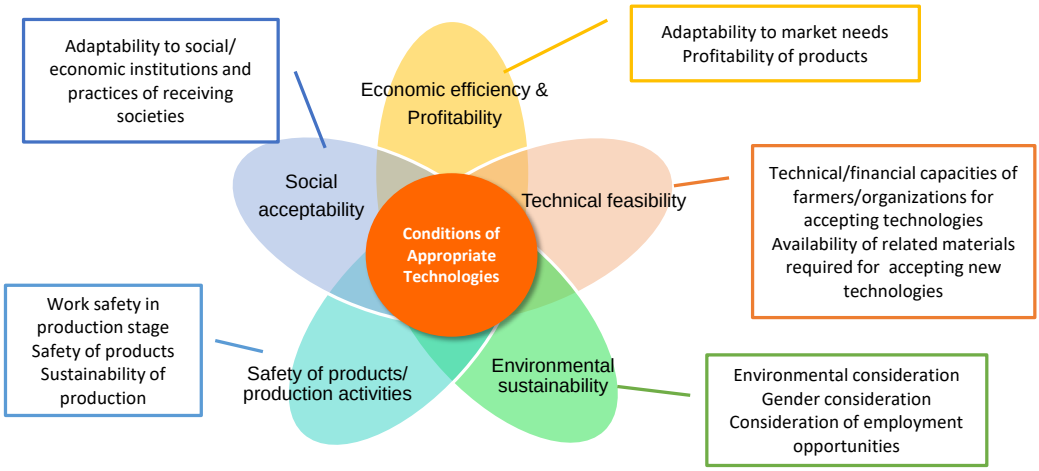


Figure 3-4 Conditions of Appropriate Technologies

Appropriate technologies to solve issues of target farmer groups which are identified in Extension Step 4 are carefully selected based on the five criteria: 1) economic efficiency and profitability, 2) technical feasibility, 3) environmental sustainability, 4) safety of products / sustainability of production, 5) social acceptability.

(2) Verification of Technologies

According to the results of the selection/identification, appropriate technologies shall be verified their effectiveness and sustainability through trial productions at field if needed. In Extension Step 2, the Project promote behavior modification of farmers by showing Good Practice Farmer's behavior. But it is not always effective because many farmers hesitate to introduce quite new crops and techniques. It is said that technology adoption gradually progresses from innovators to early adopter, early majority, late majority, and laggards according to Graph of Diffusion of innovations. To accelerate technology adoption effectively, the project support trial productions with extension officers and farmers. In the trial production, the project agrees on the following items with farmer groups to avoid wasting costs and



Figure 3-5 Graph of Diffusion of innovations
(Rogers, E. M., [1962] 1983, Diffusion of Innovations)

materials.

Criteria of Trial Production for Technology Verification:

1) Quite new technologies and crops
2) Sustainability and expandability: If a trial production succeed, farmers will continue and expand by their own budget and effort
3) Fairness: All the farmers who would like to participate a trial production can participate with equal number of materials and scales among them
4) Feasibility for increasing farm profits: Farmers must recognize the effectiveness in increase of farm profits through market visit in EVAP-2.
5) Self-motivation of farmers: The trial production must start with not suggestion by the project but proposal from farmers.

EVAP-2 utilizes the visits of good practice farmers as an alternative to 1) demonstration of the effectiveness of the technology in the area and 2) demonstration to the target farmers. However, only when there is no actual example in the area, the project is renting a part of the fields of the target farmers for demonstration cultivation in order to speed up the dissemination of the technology. At that time, in order to ensure fairness and sustainability among farmers, the project asks the cooperating farmers to agree on the following conditions and sign the agreement.

Requirements and agreements demonstration activities by farmers in EVAP-2:

Prerequisite: The targets of the demonstration activity should be new technology, crops, varieties, cropping patterns, and business activities in the area.

1) The farmers conducting the demonstration activities must be members of the target farmer group of the project.
2) The targets of the demonstration activities are technologies, crops, varieties, cropping patterns, and business activities that can improve agricultural income.
3) Consensus of all members of the target farmer groups regarding the demonstration activities
4) Equally distribute seedlings, materials, etc. to all farmers who cooperate in the demonstration activities.
5) Demonstration activities should be conducted only for a part of the cultivated area and activities, not for all.
6) The operation of the demonstration activities after the initial investment should be carried out at the self-pay and self-help efforts of the cooperating farmers.
7) If the effectiveness of the demonstration activity is verified, it will be introduced and expanded at the farmer's own expense and self-help efforts after the next cultivation season.
8) Farmers conducting demonstration activities should cooperate in data collection by EVAP-2 and expand to other farmers / regions after verification of effectiveness.
9) Farmers who carry out demonstration activities should not use seedlings, materials, etc. provided by the project for other purposes.

3-3 Improvement of EVAP Extension Package

The Project team improved the EVAP Extension Package according to the following points in the project period.



(1) Promotion of niche products by differentiation

As a result of the project activities, the project team recognized importance of niche products to stabilize farmers' profits by avoiding

competition with high quality imported product. In the Extension Step, the project team facilitates farmers to select at least one new crop aside from two major crops because many farmers are conservative and hesitate to shift to new crops.

(2) Emphasizing connectivity among information, farmer's needs and technical trainings

At the beginning of workshops, facilitators shall review activities in the past to make farmers recall and share the information with farmers who did not participate in it. Then, facilitators extract their needs for technical trainings carefully considering information obtained in previous activities.

(3) Categorization of farmers to grasp farmers' needs effectively


It was found that the important point in agriculture is not always the improvement of agricultural income for some farmers.

Through the activities in EVAP-2, the project team recognized that farmers in Palestine could be roughly categorized into 1) full-time farmers who totally rely on agriculture for their income, 2) part-time farmers who partially rely on agriculture for their income and 3) female farmers who are engaged in agriculture while doing household works for both supplemental income and self-consumption. Purposes for farming and technical training needs of farmers in each category differ. For example, major interest of 1) is increase of farm profit, that of 2) is labor saving, that of 3) are labor saving and consideration of their social situations. Those differences ware considered in the procedures of the Extension Steps to extract their training needs effectively.

(4) Considering diversification of farmers


Alternate bearing of fruits is one of the major problems in olive production

In Palestine, farming practices differ greatly by water availability even if they are in same village and a farmer group. Therefore, their problems also differ greatly. To grasp technical training needs of farmer groups effectively, Extension Step 4: Farming Improvement Planning with Extension Needs Identification has two steps: 1) making individual farming improvement plans by each farmer and 2) a group extension plan based on individual farming improvement plans.

(5) Application of EVAP Extension Package from Vegetables/Livestock to Fruit Production


Whenever we visited livestock farmers, we thoroughly implemented measures to prevent infectious diseases of livestock.

According to a statistical data of PCBS, one of the major problems in olive productions in Palestine is alternate bearing of fruits (having an irregular crop load from year to year) and fluctuations of market prices from year to year (producer prices: NIS4.0/kg in 2012(low)、NIS6.5/kg in 2013(high)、NIS5.0/kg in 2014(low)、NIS8.0/kg in 2015(high)). The project team developed a format to get information on price change over last three years to make farmers be interested in.

3-4 Technical Transfer and Capacity Development for Counterparts

(1) Technology transfer from extension officers to extension officers for sustainability

From the perspective of sustainability, Japanese experts explained the implementation method to each DOA in the 1st and 2nd cycles. However, in the 3rd and 4th cycles, the technology was transferred from the extension officers of DOAs of the previous cycle who had experience of extension activity in EVAP-2 to the extension officers of DOA who had no experience. The outline, the advantages and effects that could be confirmed were as follows.



An extension officer of Nablus DOA (1st cycle) explaining to Jerusalem DOA (3rd cycle)

- Purpose of "Technology transfer from extension officers to extension officers":
  - To ensure the sustainability of the EVAP extension package after the project
  - To conduct continuous capacity development of extension officers at GDoERD without Japanese experts
  - To enhance organizational knowledge as GDoERD



Extension officers of Qalkiliya DOA (2nd cycle) who are transferring technologies to 4th cycle DOAs

- Advice given to inexperienced extension workers by experienced extension workers in project activities:
  - The wrap-up session to be held after each activity is very important.
  - The key to promoting the participation of farmers and disseminating technology is to select a key person for the farmer group and involve him/her as a contact person.
  - During the study tour, extension officers should ride the bus that the farmer rides. By doing so, it is possible to grasp conversations and concerns between participating farmers, issues and priorities in extension activities.
  - During the study tour, extension officers listen to conversations between farmers and do not interfere with the conversations. As a result, the needs of farmers can be accurately grasped.
  - Through EVAP activities, I realized that farmers need information and technology. Providing them to farmers can benefit them.
- Effect of "Technology Transfer from Extension Officers to Extension Officers":
  - For extension officers who were the target of technology transfer, they will receive technology transfer from the same extension officers, based on their actual experience, so they felt that they could also do it themselves.
  - Repeating technology transfer from extension officers to extension officers will ensure the sustainability of the EVAP extension package after the project. It is expected that the extension officers will continue to be strengthened in GDoERD without Japanese experts, and that the organizational knowledge of GDoERD will be enhanced.
- By promoting communication between extension officers across districts, collaboration and consultation will become more active, wide-area extension activities such as study tours will be facilitated, and the network among extension officers will be strengthened.

(2) Development of e-guidelines of EVAP extension package and technology transfer for maintenance

The EVAP team has developed a web-based E-guideline for enabling counterparts of MOA and DOAs to sustain their extension activities by using the EVAP extension package. We considered three requirements for the e-guidelines: 1) easy access by all officers of MOA including those in Gaza Strip; 2) the ability to download and print electronic data, including training materials and related forms; and

3) immediate sharing of the latest materials and information when the guidelines are revised.

Since most of MOA staff have smartphones, but some extension officers do not have computers, a responsive web design was adopted, in which the layout changes to match the screen shape of the computer and the smartphone, making it easier to view on either. The guidelines were prepared in both Arabic and English languages



Figure 3-6 EVAP e-guideline (smartphone screen)
(Suitable for referring to methods in extension work or showing and explaining them to farmers)

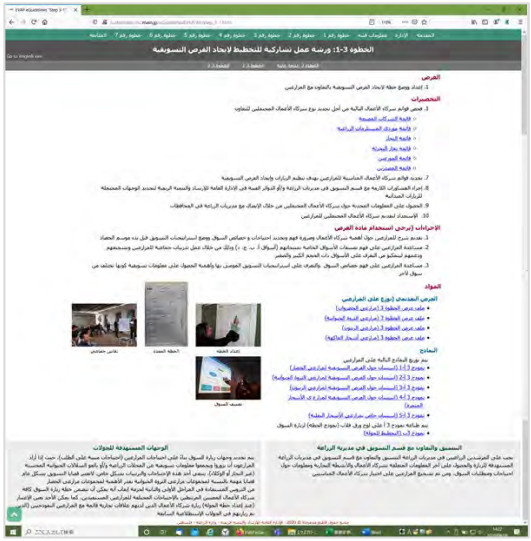


Figure 3-7 EVAP e-guideline (computer screen)
(Suitable for printing out extension materials at DOAs office, or for teaching methods to other extension workers at DOAs.)

The structure of the e-guidelines is as shown in the following table. Procedures and points for dissemination activities, formats used in extension activities, technical materials, etc. can be viewed and downloaded.

Table 3-2 Structure of EVAP e-guideline

The 1st hierarchical structure	The 2nd hierarchical structure
EVAP Extension Package	• Concepts of EVAP Extension Package • Concept of SHEP Approach
EVAP EP Management	• Planning and Budget Estimation • Budget Request and Disbursement • EVAP EP Management Team
EVAP EP Technical Information	• Gender Mainstreaming • Good Practice Farmers • On-site Soil Analysis (OSDEX) • Plant Production Brochures • Livestock Brochures • Farm Record Format
Extension Step 1：Willingness and Readiness Confirmation	• Step 1-1: Selection of Target Farmer Groups • Step 1-2: Willingness and Readiness Confirmation Workshop • Step 1-3: Discussion on Gender Awareness and Consideration
Extension Step 2：Awareness Creation Tour	• Step 2-1: Participatory Tour Planning Workshop • Step 2-2: Awareness Creation Tour Implementation
Extension Step 3：Market Opportunity Finding	• Step 3-1: Participatory Planning Workshop of Market Opportunity Finding • Step 3-2: Market Visit

The 1st hierarchical structure	The 2nd hierarchical structure
Extension Step 4：Farming Improvement Planning with Extension Needs Identification	
Extension Step 5：Farm Record Keeping for Profitability Improvement	
Extension Step 6：Extension Activities for Farming Improvement	
Extension Step 7：Profitability Assessment by Farmers	

(3) Update of the introduction website of Good Practice Farmers

Under the guidance of the Japanese experts, the staff of the mass media department, which is the counterpart of GDoERD, took the lead in adding and updating examples of good practice farmers in the southern region of West Bank. As a result, it became the website that covered the various cases of good practice farmers throughout West Bank. By the end of the project, a total of 84 farmers in West Bank and 7 farmers in Gaza Strip were posted.

However, after the e-guideline were completed, the web data was scheduled to be transferred to the web server of MOA, but due to the influence of COVID-19, the Japanese experts could not travel as planned and transferred it. Only the introduction page of Good Practice Farmers in the e-guideline has been transferred to the web server of MOA in collaboration with staff of Information and Communication Department of GDoERD.



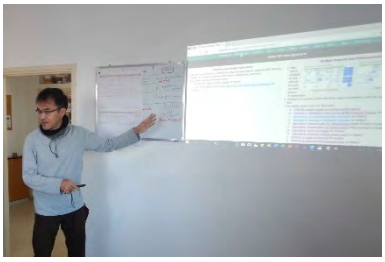
Figure 3-8 Website of Good Practice Farmers

(4) Development of guidelines of management of extension activities for GDoERD



Extension activities funded by MOA are implemented at all DOAs. Field-level activities are carried out by each DOA on their own, and the management department of GDoERD has a role to support these activities in planning, fund management and entire operation. In consultation with GDoERD, the project team has set up a web site for management in the e-guidelines to help management departments implement them smoothly, and manuals on annual extension planning, budget application, expense settlement procedure, and other various formats can be downloaded. The project team has also put in place a mechanism to remind people concerned by sending a notification message to inform them of the time of activity. The project team has also developed a system to send reminders to stakeholders about when these activities will take place.

(5) Development of a system for online monitoring of extension activities using EVAP extension package



Extension activities using EVAP extension package were being implemented with Palestinian self-financing. As the number of farmer groups increased, it became more difficult for the extension planning department to monitor the progress. The project team developed an online monitoring system using a website with the aim

of making monitoring by extension planning department more efficient.

1) Development of online monitoring sheet for extension activities

DOA in each district have been implementing extension activities using the EVAP extension package, but there was no mechanism for GDoERD to collectively monitor the progress. GDoERD requested the project team to establish such a mechanism. They also wanted the method to be applicable to extension activities other than EVAP-2. The project team, therefore, developed an online monitoring sheet for extension activities by using Google Spreadsheet.

2) Features of the online monitoring sheet for extension activities

1) The extension planning & monitoring department of the GDoERD, which is in charge of monitoring extension activities, can track the progress of extension activities of all DOAs at once in a single Google spreadsheet. It is also possible to identify and remind DOAs that are lagging behind in their progress.
2) The extension planning & monitoring department can provide comments and feedback on the activities of each DOA.
3) Officers can log in and enter information from any computer or smartphone using the Google Spreadsheet URL, and the information you enter will be updated in real time. Since most of the extension officers have smartphones, they can also enter information in the field of extension activities.
4) Tabs in the spreadsheet allow users to switch between data for each DOA. A unique sheet color is assigned to each DOA to avoid accidentally filling in the sheets of other DOAs.
5) The sheet allows the user to enter the date of planning and the date of implementation of extension activities. If implementation is delayed, the number of days elapsed from the planned date is automatically displayed to encourage implementation.
6) The system can be applied to extension activities other than EVAP-2 activities simply by changing the contents and layout of the sheet.
7) There are no installation and maintenance costs.



An extension agent entering extension activity results on his phone. (Hebron DOA' color is purple)

3) Items of the online monitoring sheet for extension activities:

- Farmer group name, extension officers name, district name
- Row: Extension steps 1 to 7
- Columns: Date planned, date of implementation, number of days elapsed since the date planned (automatically displayed if not implemented), number of participants (by gender), names of participating extension officers, location of activities, training topics, challenges, comments from GDoERD.

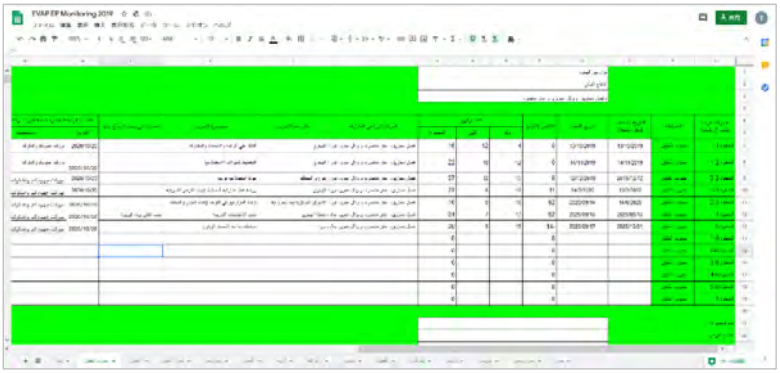


Figure 3-9 an online monitoring sheet for extension activities by using Google Spreadsheet (an example page for South Hebron DOA)
(Tabs below for switching to other DOAs)

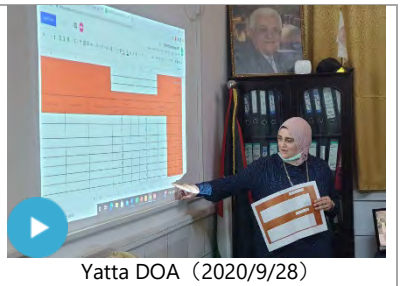
4) Briefing on how to use the online monitoring sheet for extension activities in MOA

The EVAP team conducted a technical transfer to the 4th cycle DOAs on how to use the online extension activity monitoring sheet developed by using Google Spreadsheet. If it works well in the 4th cycle DOAs, the system will be rolled out to all DOAs. Ms. Maram Sawalha, Director of Planning and Monitoring of GDoERD, served as a lecturer in the briefing session and explained the data entry method. At the session, the URL of the Google Spreadsheet was given to extension officers so that they could actually log in and input data from their smartphones and computers. We also set up shortcut links on their smartphone screens for easy access.

Participating extension officers said, "It is convenient to access the system from anywhere. and "I was able to learn how to use it by actually entering the results of the 4th cycle activities by myself". Ms. Maram Sawalha, who served as a lecturer, commented, "Through this activity, I learned not only how to use Google Spreadsheet but also how to make it, so I will be able to make monitoring sheets for other extension activities by myself.


Bethlehem DOA（2020/9/20）


North Hebron DOA（2020/9/24）


Yatta DOA（2020/9/28）


Hebron DOA（2020/10/1）


South Hebron（Dura）DOA
（2020/10/7）


Director of planning and monitoring department
Ms. Maram Sawalha giving a lecture

3-5 Activities related to public relations of EVAP extension package

(1) Dissemination of information through Facebook to spread the results of problem solving by utilizing the interaction among farmers

In the agricultural extension in Japan, it is said that utilizing the interaction of farmers to spread the results of problem solving is necessary at the end of a series of dissemination activities for the expandability of the activities. EVAP-2 used Facebook of the GDoRED as an effective public relations tool and disseminated examples of the behavioral changes in farmers as a result of the extension activities by EVAP-2 as real voices of beneficiary farmers and extension officers of DOAs.



Mr. Mahmoud Abdullah (Grape farmer in Al-Khader village, Bethlehem)



Mr. Ali Shaheen (Grape farmer in Halhoul village, Hebron)



Mr. Ziad Abu Rahmeh（Head of vegetable department of South Hebron DOA)



Ms. Mariam Subaih (Grape farmer in Al-Khader village, Bethlehem)



Mr. Majed Masharqa (Vegetable farmers in Al-Hejiri village, Hebron)



Mr. Fadel Mahareeq（Head of extension department of South Hebron DOA)



Ms. Shoroq Manasra (Vegetable and fruit farmers in Al Badhan village, Nablus)



Livestock farmer group in Qalkiliya



Vegetable farmer group in Jeftlik village, Jericho



Mr. and Mrs. Sulieman (Grape and livestock farmers in Nawaji village, Nablus)



Video distribution on Facebook

(2) TV shooting of a female farmer group supported by EVAP-2



EVAP-2 actively disseminates the results of gender consideration measures to the outside through SNS, etc., so that the effectiveness of women's empowerment is widely recognized by the entire local community. In this regards, Dier Ballout Women Extension Group, a female farmer group supported by EVAP-2, was interviewed by Palestine National TV in November 2021. This farmer group is a very active female farmer group, and after participating in EVAP-2 since 2018, they sell vegetables

directly to supermarkets, and they are also active in agricultural processing (drying and processing of couscous). Furthermore, they started a poultry farming business with the support from other donors. Through this TV report, we hope that this female farmer group will be recognized as a role model for active female farmer groups in Palestine.



(3) Survey on the sustainability of silage technology introduced in EVAP-1

As an interview for project publicity, we conducted a survey on the spread of silage technology introduced in EVAP-1. Livestock farmers are forced to buy feed from outside because the growth rate of pasture is slow and unstable due to the low rainfall climate in Palestine. In recent years, the price of imported feed has soared. In EVAP-1, in order to utilize local limited biomass resources in the area, the project promoted silage making technology by fermenting crop residues and date squeezed residue that are easily available in the area. As a result of field surveys in Bardala, Karala, and Ein el-Baida villages in the northern part of Tubas, it was confirmed that the technology is widely used in the Jordan Valley area and that farmers are still continuing the technology.



A farmer transporting the produced silage to a barn (Tubas)

3-6 Institutionalization of EVAP Extension Package (normalization)

(1) Supports to institutionalize EVAP Extension Package in Palestinian Authority

1) Monitoring the use of petty cash advance payment system (Petty Cash) for extension activities in FY2020

The EVAP team conducted monitoring usage progress of the petty cash advance payment system (Petty Cash) that was improved through works of the Project. By the end of 2019, each DOA made a request to the General Directorate of Finance of MOA for advance petty cash payment as the budget for FY2020, which was granted to all DOAs by the end of March 2020, as shown in the following table. The total amount was NIS 42,315 (about 1.27 million yen) for 15 DOAs, which enabled each DOA to continue extension activities using the EVAP extension package. Note that under this system, when the advance payment is used up, DOAs can apply for additional amounts that will be reissued if the application documents are in order.

Table 3-2 Disbursed amounts of the petty cash advance payment for sustaining the EVAP extension package (FY 2020)

Cycle	DOA	Disbursed amount (NIS)	Date of closing and request for replenishment of petty cash to GD of Finance
1st cycle	Jericho	2,058	December 23, 2019
	Nablus	2,617	December 29, 2019
	Tubas	3,000	December 2, 2019
2nd cycle	Jenin	3,000	December 20, 2019
	South Jenin	3,000	December 16, 2019
	Tulkarm	3,190	October 25, 2019
	Qalqiliya	3,000	October 06, 2019
3rd cycle	Salfit	2,145	December 9, 2019
	Ramallah	3,000	December 11, 2019

Cycle	DOA	Disbursed amount (NIS)	Date of closing and request for replenishment of petty cash to GD of Finance
	Jerusalem	3,000	December 9, 2019
4th cycle	Bethlehem	3,000	December 20, 2019
	North Hebron	3,000	October 7, 2019
	Hebron	3,000	October 7, 2019
	South Hebron	3,000	January 4, 2020
	Yatta	2,305	December 16, 2019
Total		42,315	

Source: Phone hearing from directors of DOAs

2) Monitoring of extension activities based on the EVAP extension package (2nd round activity) with own budget of Palestinian authority




The project team monitored the progress of extension activities (2nd round) using EVAP extension package by the government' own budget. There was a problem with the expense processing procedure within the government, and activities have been stagnant since January 2019. However, in June 2019, the project team worked to change the petty cash system to simplify the expense payment procedure within the government, making it easier to settle actual expenses using receipts. As a result, extension activities have been resumed. In 2020, although annual extension plans incorporating EVAP extension package were prepared at DOAs, activities were stagnant due to the lack of budget of the government.




However, since it became possible to carry out extension activities such as study tours using two 9-seater minibuses provided by JICA Palestine Office to GDoERD, extension activities resumed after August 2021. Then, the project team monitored the implementation status of the extension activities and conducted technical follow-up as necessary. The progress of the extension activities (2nd round) utilizing EVAP extension package the government' own budget is shown in Attachment 3-8. From the perspective of sustainability, the project team decided not to interfere with these activities as much as possible, and provided technical support only when necessary. The pictures of extension activities (2nd round) utilizing the EVAP extension package by the government' own budget are as shown in Attachment 3-9.

(3) Application of training materials in extension activities by DOAs other than EVAP extension package

In addition to extension activities using EVAP extension package, MOA also utilizes the training materials developed by EVAP-2 to provide technical trainings that meets the needs of farmers.

1) Technical training on compost making as an alternative to chemical fertilizer



As a part of extension activities at South Hebron DOA as other than the EVAP extension package, they independently conducted compost making trainings using the technical manuals prepared by EVAP-2. Several farmers in Al-Majd village requested South Hebron DOA to conduct trainings for compost making.

2) Network diagnosis of drip irrigation tube



In June 2021, Ms. Ruba, Ms. Majdoleen, Ms. Faten, and Mr. Samer, extension offices of Hebron DOA, visited the farms in Al-Bwareh village according to the request from farmers using drip irrigation. A network diagnosis was conducted by the extension officers, and improvement measures were appropriately proposed to the farmers. The southern part of West Bank, where Hebron is located, has fewer agricultural wells than the northern part. Therefore, the technology and knowledge for efficient use of limited water resources is a common need of farmers in the area.

3) Implementation of sustainable artificial insemination methods for sheep based on the needs of farmers



Based on the request from the farmer to Bethlehem DOA , the extension offices (Mr. Mohammed Al-Basha and Mr. Ayman Zawahreh) conducted artificial insemination for the farmers in August 2021. The extension officers participated the training by EVAP-2 and had practical experience, so they were able to carry out the activities smoothly. In addition, in order to ensure the sustainability of the activities and to provide the services only to farmers who really need artificial insemination from the viewpoint of efficiency, we have adopted a method to have beneficiary farmers bear the actual cost only for small consumables.

Chapter 4 Activities of Each Farmer Group

"Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)" (hereinafter referred to as EVAP-2) are divided into the three contract periods. Project activities in each period are described as follows:
- 1st Contract Period (July 2016 - March 2018): Project Progress Report (1st Period)
- 2nd Contract Period (April 2018 - July 2019): Project Progress Report (2nd Period)
- 3rd Contract Period (July 2019 - January 2022): Project Completion Report (this Report)

This report contains the project activities conducted in the 3rd Contract Period (July 2019 - January 2022).

The Project tried to motivate farmers through implementing the Extension Steps that are systematically interlinked. It also intends to ensure an organic linkage of activities so that the farmers can follow the steps without declining in their interest. In addition, it diversifies methods of motivating the farmers considering their differences in purposes of production, situation of agricultural management, and social environment. This chapter explains activities of each farmer group, which shows how their activities differ among the farmer groups, and how each of the activities are connected. The session numbers of this chapter are continued from the Project Progress Reports (the 1st and 2nd Contract Periods). Number of memberships of each farmer group mentioned at the beginning is that of famers participating in the Extension Step 1 and different from that of final beneficiary farmers. The final beneficiary farmers means farmers who have participated in one or more extension activities of EVAP-2.

Target farmer groups of the 1st Cycle

The target districts of the 1st Cycle are Nablus including the region of Jordan River Rift Valley, Tubas and Jericho. All steps of the EVAP activities were completed by the 2nd Contract Period. Details of activities are described in the Project Progress Reports (the 1st and 2nd Contract Periods).

Target farmer groups of the 2nd Cycle

The target districts of the 2nd Cycle are Qalqiliya, Tulkarm and Jenin including semi-coastal region. All steps of the EVAP activities were completed by January 2020 in the 3rd Contract Period. Details of activities are described in the Project Progress Reports (the 1st and 2nd Contract Periods) and as follows.

(2-1) Al-Izab Farmer Extension Group (Qalqiliya)

No.	Group Name	District	Village	Registration Status	Membership		
					Male	Female	Total
2-1	Al-Izab Farmer Extension Group	Qalqiliya	Al-Izab	Not Registered	10	0	10

(7) Extension Step 7：Implementation of Profitability Assessment (January 2020)

All members of the farmer group were male, and eleven of them participated in the workshop. Seven of them kept farm records introduced by EVAP-2. The results of the questionnaire survey are reported in Chapter 6.



■ Examples of changes in farmers' behavior leading to higher farm income:

- After participating in the EVAP-2 activities, farmers started to check the market prices of their crops.
- Based on the information obtained from the Awareness Creation Tour

and Market Visit, farmers introduced the cultivation of peas, strawberries, zucchini (suspended cultivation), thyme, early grapes, grape leaves, and pumpkin, which have high market needs and profitability.

- Farmers have introduced direct sales and participated in local agricultural fairs.
- Farmers have introduced grafted watermelon cultivation after understanding the advantages of grafted seedlings (disease resistance, high productivity) in the technical training.
- Farmers have adopted the techniques of composting, drip irrigation with liquid fertilizer (cucumber and tomato), and technology for improved irrigation after learning in the technical training.

(2-2) Qalqiliya Livestock Extension Group (Qalqiliya)

No.	Group Name	District	Village	Registration Status	Membership		
					Male	Female	Total
2-2	Qalqiliya Livestock Extension Group	Qalqiliya	Azoun and other five villages	Not Registered	13	0	13

(7) Extension Step 7：Implementation of Profitability Assessment (January 2020)

All members of the farmer group were male, and eleven of them participated in the workshop. Four of them kept farm records introduced by EVAP-2. The results of the questionnaire survey are reported in Chapter 6.



■ Examples of changes in farmers' behavior leading to higher farm income:

- The mortality rate of newborn sheep has been reduced by adopting the method of isolating newborn sheep that we observed during the Awareness Creation Tour, and by applying the information obtained from the livestock health and disease management technology training and fact sheets (such as newborn sheep vaccination and rearing methods). The health of the lambs has also improved, and they sell at a higher price than before.
- Through the EVAP-2 activities, eight farmers tried AI on a new breed of sheep with high lambing rate and fast growth rate, and the number of newborn sheep increased and sold at a higher price than before.
- Farmers have started the cultivation of Alfalfa as an alternative to the conventional grass purchased, which led to reducing cost of feed.
- As a result of EVAP-2 activities, the association was registered as a union (October 2018, 17 male and 1 female members). Information exchange among members increased, and business negotiations with related vendors were conducted. Group purchase of feed was also carried out to reduce feed costs.



(2-3) Baqa Al Sharqeiah Farmer Group (Tulkarm)

No.	Group Name	District	Village	Registration Status	Membership		
					Male	Female	Total
2-3	Baqa Al Sharqeiah Farmer Group	Tulkarm	Baqa Al Sharqeiah	Registered	40	0	40

Since this farmer group requested not to participate in the project activities, the technical training after Extension Step 6 has not been conducted. The main reasons for their declining were that many of the farmers were dual-income farmers and could not take time to participate in the training, and that they were not interested in the technical training because the previous Extension Steps were sufficient. Extension Step 7: Agricultural Profitability Analysis, has also not been conducted.

(2-4) Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarm)

No.	Group Name	District	Village	Registration Status	Membership		
					Male	Female	Total
2-4	Saida Cooperative Association for Processing and Marketing of Rural Products	Tulkarm	Saida	Registered	0	36	36

(7) Extension Step 7：Implementation of Profitability Assessment (January 2020)



All members of the farmer group were women, and 15 members participated in the workshop, five of whom kept farm records introduced by EVAP-2, and it was the group activities that changed as a result of participation in EVAP-2 activities. The results of the questionnaire survey are reported in Chapter 6.

■ Examples of changes in farmers' behavior that lead to higher farm income:

- In addition to honey, farmers have started selling bee pollen grain and hives. By selling honey as a group, we were able to increase the selling price.
- Farmers have introduced gundelia cultivation after observing examples of gundelia cultivation during the Awareness Creation Tour and receiving a training on cultivation techniques.
- By introducing the drying method of thyme in the sun, which they learned about during the Awareness Creation Tour, farmers have become able to save on electricity costs and improve the quality of the thyme, which enabled them to ship the products at a higher price than before. At the same time, they have increased the area for thyme cultivation.



(2-5) Maithalon and Sanor Farmer Extension Group (Jenin)

No.	Group Name	District	Village	Registration Status	Membership		
					Male	Female	Total
2-5	Maithalon and Sanor Farmer Extension Group	Jenin	Maithalon and Sanor	Registered	13	6	19

(7) Extension Step 7：Implementation of Profitability Assessment (January 2020)

The members of the farmer group were male and female, and nine people participated in the workshop. The results of the questionnaire survey are reported in Chapter 6.



■ Examples of changes in farmers' behavior that lead to higher farm income:

- Of the 9 participants, 2 farmers started to keep farming records, especially on the use of pesticides, which led them to consider the appropriate time of cultivation.
- Based on the information obtained from the Awareness Creation Tour and Market Visit, farmers have introduced cultivation of gundelia and Snake Cucumber with high market needs. Parsley and sesame were also introduced as highly profitable crops.
- Based on market needs, farmers have started shipping cucumbers in small packages. Grape leaves and onions were changed to direct sales to the wholesale market.
- After understanding the advantages of grafted seedlings (disease resistance, high productivity) through the technical training, farmers have started watermelon cultivation with grafted seedlings.

(2-6) Qabatiya Farmer Extension Group (Jenin)

No.	Group Name	District	Village	Registration Status	Membership		
					Male	Female	Total
2-6	Qabatiya Farmer Extension Group	Jenin	Qabatiya	Registered	14	0	14

(7) Extension Step 7：Implementation of Profitability Assessment (January 2020)

All the members of the farmer groups were male. Some farmers who had participated in EVAP-2 activities but were not able to attend the workshop of the Step 7. The extension officers, therefore, visited them later to obtain their responses to the questionnaire. The results of the questionnaire survey are reported in Chapter 6.

■ Examples of changes in farmers' behavior that lead to higher farm income:

- Based on the market needs identified during the Market Visit, farmers have changed the sales unit of grape leaves, spring cucumbers, eggplants, and thyme from plastic boxes (capacity) to Kg (weight), which means a shift in their consciousness from quantity to quality.
- Based on the information obtained during the market visit, farmers have introduced pea and zucchini cultivation (suspended cultivation) and greenhouse watermelon cultivation, which have high market needs and profitability.
- 3 out of 10 participants kept farming records introduced by EVAP-2.
- Through market visits, farmers recognized that there was a large price difference depending on the destination and have started direct sales.
- After understanding the advantages of grafted seedlings (disease resistance, high productivity) through the technical training, farmers started cultivation of grafted cucumber, tomato, and watermelon by using grafted seedlings.



Target farmer groups of the 3rd Cycle

The target districts of the 3rd Cycle are Salfit, Ramallah and Jerusalem including the central highlands region. EVAP-2 activities started in October 2018. Activities up to Step 6 were completed by January 2020. Step 7 was conducted in May and April 2021. Details of activities are described in the Project Progress Report (2nd Contract Period) and as follows.

(3-1) Dier Ballout Women Extension Group (Salfit)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
3-1	Dier Ballout Women Extension Group	Salfit	Dier Ballout	Registered	Registered association	7	21	27	Vegetable production

(6) Extension Step 6：Technical training for farming improvement

(6-1) Technical training on compost making (the 1st session) (July 2019)

Technical training on compost making was conducted for a group of women vegetable farmers. They were explained about the benefits of compost and how to make and apply it. Some of the farmers had already been working on compost making, and based on their experience, many question and answers

were exchanged. Since the participants were eager to make their own compost, it was decided that the Salfit DOA would take an initiative in demonstrating how to make compost at two farmers' homes in the next session.





(6-2) Technical training on compost making (the 2nd session) (August 2019)



Technical training on compost making was conducted for a group of women vegetables farmers. The target farmer group cultivates snake cucumbers, garlic, onions, etc. The main problems in cultivation were low soil fertility and rust outbreaks due to moisture damage. As a counter measure, demonstrations of compost making were conducted in farmers' fields by using locally available crop residues and animal manure. The extension officers of Salfit DOA demonstrated its technologies. In order to facilitate the introduction of the technologies, the farmers were encouraged to first make compost in small quantities that can be implemented in their home gardens. The participating farmers commented that they would make additional compost on their own after the training was conducted.

(6-3) Technical training on group purchasing (August 2019)



Technical training on group purchasing for women farmers' groups was conducted. In the training, case studies of group purchasing, advantages, cautions, and implementation procedures were explained, and members discussed group purchasing. As a result, members were able to make a plan for joint cultivation to reduce labor as well as group purchasing of fertilizers, pesticides, and onion seeds and seedlings.

(6-4) Technical training on compost making (the 3rd session) (September 2019)



Technical training on compost making was conducted for farmers who could not participate in the previous training. The target farmers cultivate snake cucumbers, garlic, onions, etc., and the main problems they face in terms of cultivation are low soil fertility and the occurrence of rust due to moisture damage. As a counter measure, demonstrations of compost making were conducted in farmers' fields by using locally available crop residues and animal manure. The extension officers of Salfit DOA demonstrated its technologies.

(6-5) Technical training on cultivation of onion and grafted cucumber (December 2019)

The Project arranged a study tour to farmers who are cultivating various varieties of onions (Tubas) and indigenous cucumber varieties using grafted seedlings (Jenin).

The group members who visited the good practice farmers in Tubas district learned many techniques such as pest control of onions. Upon knowing that the group was growing onions under rainfed conditions, the good practice farmer advised them to select the right variety of onions, as the varieties of onions that should be grown under rainfed and irrigated conditions are different. The farmers were unaware of the fact that they could not grow large onions in a rainfed environment and had purchased the seedlings of the variety as recommended by the local seed dealer.





(7) Extension Step 7：Implementation of Profitability Assessment (March 2021)

All members of the farmer group were women, and nine of them participated in the workshop. Ms. Maysa, Extension Officer, Salfit DOA was the main facilitator of the workshop, assisted by Mr. Labeeb Obaid (Director of Extension Services Department), Ms. Rula, Ms. Oland and Ms. Raneen. Ms. Rula, Ms. Oland, and Ms. Raneen. The participating farmers themselves were asked to fill in the forms and conduct the agricultural profitability assessment.



■ Examples of changes in farmers' behavior that lead to higher farm income:



- "By purchasing herbicides (Tayphon and Roundup) and pesticides (fungicides: Ridmil) in bulk as a group, we were able to purchase them at a unit price 30-50% lower than usual. By spraying pesticides at the right time as a preventive measure, we were able to reduce the incidence of pests and diseases, as well as the overall amount and cost of pesticide use, which increased our interest in the proper use of pesticides and cost reduction."
- "By purchasing 300 bags of chemical fertilizer (compound fertilizer containing NPK (nitrogen, phosphate, and potassium)) in a group, we were able to purchase it at a low unit price of 35-40 NIS/kg instead of the usual 50 NIS/kg."
- "Based on the market information and farm records obtained from EVAP-2, several farmers switched from less profitable wheat to more profitable broad bean (Broad Bean), pea (Pea) and snake cucumber. The group purchased seeds in bulk, which resulted in a lower-than-usual price for sole bean seeds, from NIS 15/kg to NIS 7/kg, and for pea bean seeds, from NIS 15/kg to NIS 10/kg."
- "We decided to introduce the Qinnar variety of onion as a new variety of onion. The group purchased seed onions (*In Palestine, it is common to purchase onions in the form of small bulbs rather than seeds for planting.), and the unit price was reduced from 20 NIS/kg to 8 NIS/kg, which is cheaper than usual. In addition, when planting, small seed onions with poor growth and those with fungus were eliminated, resulting in uniform growth and increased yields. The unit price of seed onions has been reduced, which has allowed us to increase our planting area. For example, we used to plant 9kg worth of seed onions, but now we have increased the area to 25kg worth. (Ms. Um Ismael, member farmer) "
- "We've started selling snake cucumbers to new traders that we learned about through EVAP-2. "
- "We started to grow Zia'et Mani (Ixiolyon, a purple flower similar to lily) with thyme, which has a high market demand. The planting area is seven dunums, and several farmers work together to manage the planting."
- The production of snake cucumber pickles used to be about 30 bottles (1 bottle = 2 liter plastic bottle

container), but now they have been able to increase their production to 5 tons by starting to sell directly to retail stores in Ramallah, which we visited during EVAP-2. Next year, we hope to expand our production by another 2 tons and also add the brand name "Ballouty" (from Dier Ballout).

- "Increasing the spacing between snake cucumber plants from 50 cm to 70 cm has reduced disease and increased yield from 1,300 kg/dunum to about 2,000 kg/dunum. (Ms. Shereen Mustafa, a member farmer; other factors are possible) "
- "Several women farmers have introduced composting in their vegetable gardens, and if the effects of applying compost to the soil can be demonstrated, I would like to use it in my fields as well."
- "I started growing Gundelia as a new crop, even though it is on a small scale in the home garden. "

■ The impacts of COVID-19 on farming

- "There was a time when schools in Palestine conducted online classes, and children often used cell phones in their households, which hindered communication from extension officers to farmers and between farmers.
- "Since the lockdown was implemented during the snake cucumber harvest, the demand and price of fresh cucumbers dropped. To cope with this, we produced more pickles and sold them with the "Ballouty" sticker. In addition to traditional sales channels (traders and direct sales to Plaza Mall), new direct sales channels were developed. We also made an agreement with the city to promote snake cucumbers and sold them at the open-air market in Dier Ballout Village."
- "Since the COVID-19 epidemic gave us more time, we started growing vegetables in the backyard and used crop residues to make compost, which we used to grow vegetables."

(3-2) Salfit Olive Farmer Extension Group (Salfit)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
3-2	Salfit Olive Farmer Extension Group	Salfit	Salfit	Not registered	Newly organized for EVAP-2	13	3	15	Olive and vegetable production

(6) Extension Step 6：Technical training for farming improvement

(6-1) Technical training on supplementary irrigation technology for olives and matching with agricultural materials dealers (July 2019)



This activity was carried out together with a group of olive farmers in Ramallah district. In order to promote labour saving and higher profitability in olive cultivation, a study tour was conducted to visit an olive farming equipment and supplies store as well as a specialized olive irrigation farmer, and to exchange opinions with the store owner and the farmer.



First, the group members visited olive farming equipment and supplies store in Ramallah district to check mowers and harvesting equipment for labour saving and exchanged information with the dealer. Since labour cost accounts for a large part of the production cost in olive cultivation, labour saving through mechanization is an effective way to increase profitability. The farmers and the store owner exchanged opinions during the visit, and it was decided to proceed with discussions among the farmers on group purchase and ownership in order to reduce an

initial investment cost for each farmer.

The olive farmers in Nablus district exchanged opinions among themselves about supplementary irrigation using drums and pruning. This was followed by a demonstration of supplementary irrigation. Since the irrigation was done using relatively familiar equipment such as drums, the farmers were able to imagine how it could be implemented in their own fields. Discussions were also held on how supplemental irrigation can improve profitability and fruit quality.




(6-2) Study tour to improve olive oil quality (August 2019)

The farmer group visited an olive farmer using supplementary irrigation and a farming equipment and supplies store. In the field of good practice farmer (Mr. Abu Assim), who uses supplementary irrigation, the group observed the technique of supplementary irrigation using drums and received information on the effectiveness of supplementary irrigation on fruit yield and quality. At the equipment supplier store, the group members were able to obtain information on equipment and materials to reduce labor for harvesting, which accounts for half of the production cost.




(6-3) Technical training on group selling (September 2019)

Based on the needs of the farmers, a technical training on group selling was conducted. The training covered following topics: benefits of group selling, group selling procedures, quality standards of olive oil, quality required by buyers, pricing mechanism, and contact information of major olive oil processors in the Palestine. After the training, about 15 of the participants decided to participate in the group sales activities, and they planned to match them with olive oil processors through the intermediary of the extension officers of Salfit DOA before the October harvest.



(6-4) Matching with olive oil processors (1) (October 2019)

Based on the needs of the farmers identified at the group sales training, extension officers of Salfit DOA facilitated a matching with the Anabtawi Group, an olive oil processor. During the meeting, both sides were able to identify each




other's needs, and as a result, they agreed to work together to implement business in the future. With the support of Salfit DOA, a draft business agreement was prepared.

(6-5) Matching with olive oil processors (2) (December 2019)

In October 2019, an agreement was reached for direct selling with Anabtawi Group, an olive oil processor, which was facilitated by Salfit DOA. The condition of the direct selling was that the olive oil should be shipped in compliance with the company's quality standards. Based on the agreement, five tons of olive oil that met the quality standards were actually traded in December 2019. If there are no quality issues, it is expected that the trade will continue in the future.

(7) Extension Step 7：Implementation of Profitability Assessment (March 2021)





This group was mix gender group, and 7 men and 2 women participated in the workshop. Mr. Labeeb Obaid (Director of Extension Services Department) of Salfit DOA was the main facilitator of the workshop and was assisted by extension officers, Ms. Maysa, Ms. Amany, Ms. Oland, Ms. Raneen and Mr. Ahmed. The participating farmers themselves were asked to complete the form for conducting the agricultural profitability assessment. In general, olives are prone to biennial results (a decline where the entire region alternates between good and bad years), which tends to result in large fluctuations in market prices from year to year. According to the participating farmers, in Palestine, 2020 was a bad harvest year, resulting in low yields and high market prices. On the other hand, the previous year, 2019, was a bumper harvest year, with very high yields and very low market prices. EVAP-2 conducted a training on pruning and fruit picking techniques so as to stabilize the fluctuation in yield due to biennial results. Unfortunately, the results could not be evaluated in this activity because it takes about two to three years to show the results.

- Examples of changes in farmers' behavior that lead to higher farm income:
  - "Four farmers out of seven participants kept farming records."
  - "We Improved olive pruning techniques."
  - "We conducted joint sales of olive oil (5 tons)."
  - "We Improved irrigation methods for olive seedlings."
  - "We Improved watering method for olive seedlings
  - "We tried compost making using livestock manure based on the knowledge gained from the technical training"
  - "We introduced an electric olive harvester that was used and sold by the good practice farmers and agricultural equipment stores we visited. In response to farmers' requests, Salfit City purchased 15 of these machines and distributed them free of charge to farmer members."
  - "Through the business matching conducted by EVAP-2, we have made deals with traders with whom we had no dealings before."
- The impacts of COVID-19 on farming
  - "Although the lockdown had some effects, such as limited access to the fields, we were able to spend more time on olive management than usual because we had more time to spare."
  - The COVID-19 epidemic has had a significant impact on the olive oil market due to (i) reduced consumer purchasing power due to lower incomes, (ii) reduced demand for olive oil, (iii) restrictions on the movement of people and goods, including traders, and (iv) reduced exports.

(3-3) Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
3-3	Kharbatheh Musbah Olive Farmers Extension Group	Ramallah	Kharbatheh Musbah	Not registered	Newly organized for EVAP-2	15	0	15	Olive and crop production

(6) Extension Step 6：technical training for farming improvement

(6-1) Technical training on supplementary irrigation technology for olives and matching agricultural material dealers (July 2019)

This activity was carried out with the Salfit Olive Farmers Extension Group (see reports of Salfit Olive Farmers Extension Group for details).

(6-2) Technical training on compost making (August 2019)



Technical raining on compost making techniques was provided to a group of olive farmers. The extension officers of Ramallah DOA demonstrated the techniques in the farmers' fields, using locally available crop residues and livestock manure.

(6-3) Technical training on group purchasing (August 2019)



Technical training on group purchasing for the olive farmers' group was conducted. In the training, case studies of group purchasing, advantages, cautions, and implementation procedures were explained, and members discussed group purchasing. The main challenges in olive production in Palestine are high labour cost for harvesting and the low shipping price due to the low quality of olive oil. Through the previous extension steps in EVAP-2, farmers got aware of the need to improve it. Therefore, they made a policy to jointly purchase an electric harvester and stainless-steel bottles to improve the storage and safety of olive oil.

(6-4) Study tour to improve the quality of olive oil (September2019)



Based on the technical training plan developed by the farmers' group, the EVAP team arranged a visit to 1) a stainless-steel bottle seller for olive oil storage and 2) a used tractor seller. The purpose was to provide farmers with information on agricultural materials and equipment to improve olive oil storage methods and reduce labour. Compared to conventional steel bottles, storage in stainless steel bottles prevents quality deterioration and may increase the selling price. After the visit, the farmer's group made a policy of inviting other farmers to join them in purchasing a used tractor.

(7) Extension Step 7：Implementation of Profitability Assessment (April 2021)



This group was mix gender group, and 6 men and 1 woman participated in the workshop. Ms. Jumana Ziad, extension officer of Ramallah DOA, was the main facilitator of the workshop, assisted by Ms. Ala' Alsayed and Ms. Noor Abu Thaher. Farmers themselves were asked to fill in the form for conducting agricultural profitability assessment. Extension officers assisted farmers who needed help in filling out the forms.



■ Examples of changes in farmers' behavior that lead to higher farm income:

- "We learned and practiced pruning techniques from the good practice farmers whom we visited during the EVAP-2 activities. Pruning has improved the maintenance and handling of the olive trees, as well as the yield and quality of the olive fruit."
- "We purchased and installed an electric olive harvester at our own expense, which we learned about through EVAP-2 activities. As a result, the amount of labor (female members of the family and laborers were hired) and time required for harvesting was significantly reduced, harvesting costs decreased, and the area under management was increased by renting a nearby olive grove (paying a portion of the harvest to the landowner)."



- "We purchased and used a mower that we learned about through the EVAP-2 activities. The cost of herbicides has been reduced and the quality of olive oil has been improved. "
- "We practiced compost making that we learned in the technical training. It improved work practices in the olive groves, including fertilization, pest and disease prevention management, pruning, and mowing."
- "We have started direct sales of olive oil to consumers."
- "Surplus olive oil was refilled into new bottles and storage conditions were improved to maintain quality and sell at a reasonable price. The packing and storage methods were learned from EVAP-2 market visit, good practice farmer visits, and technical training."

■ The impacts of COVID-19 on farming

- "The lockdown caused by the COVID-19 epidemic has allowed us to spend more time on olive management (mowing, pruning, disease and insect control, fertilization, etc.) than usual."





- "Due to the high olive harvest in 2019 (2019 was the first year of the biennial results of a high fruitful year (front year) and a low fruitful year (back year)), farmers were left with a large inventory of unsold olive oil. The lockdown caused by the COVID-19 epidemic has resulted in (i) reduced consumer purchasing power due to lower incomes, (ii) a significant decline in demand for olive oil, (iii) restrictions on the movement of people and goods, including traders, and (iv) lower olive oil prices (from NIS 600 to NIS 450 per barrel), which further affected the olive oil market in addition to the impact of the biennial results."
- "Through the EVAP-2 business matching activities and other activities, we recognized the importance of collecting information on traders and building networks, so we continued to search for new sales channels for the olive oil in our inventory. As a result, some farmers were able to sell their products to traders from other

regions at reasonable prices."

(3-4) Al Mughayier Livestock Farmer Extension Group (Ramallah)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
3-4	Al Mughayier Livestock Farmer Extension Group	Ramallah	Al Mughayier	Not registered	Newly organized for EVAP-2	17	0	17	Sheep and goat raising

(6) Extension Step 6: Technical training for farming improvement

(6-1) Technical training on livestock hygiene (February 2019)



Technical training on livestock hygiene was conducted in response to the needs of farmers' group. The lecturers were officials from the Veterinary Services Department who participated in the pre-training guidance. However, the presentation did not go according to the pre-training guidance and the lecturers presented their subjective views. In particular, the content of the training in Ramallah district was drastically shortened, and it was questionable whether the main points were correctly delivered to farmers or not. Many of the veterinarians at the Directorate General of Veterinary and Animal Health work as clinical veterinarians after completing their official duties, and this experience creates the basis for information on the technical training, which sometimes turns out to be a good learning for participants. However, the veterinarians did not have thermometers or stethoscopes and did not seem to be actively collecting new knowledge. They may pass on incorrect knowledge to farmers without realizing it. In the future, it is necessary to consider who should be a lecturer for the technical training on livestock hygiene and how to transfer the technology.

(6-2) Technical training on livestock feeding management (the 1st session) (February 2019)



Technical training on livestock feeding management was conducted by the extension officers in charge of animal husbandry at Ramallah DOA. As lecture points had been confirmed in advance by the project team, the lecturer tried to follow the presentation and convey the contents to farmers in an easy-to-understand manner. In particular, the extension officer from Ramallah DOA seemed to have studied feedstuff very well. Since farmers are grazing throughout the year, the content of the presentations did not necessarily match the actual situation of the farmers, which needs to be improved.

(6-3) Technical training on livestock feeding management (the 2nd session) (July 2019)

Extension officers from Ramallah DOA served as instructors and provided the technical training on sheep raising and management to increase productivity and profitability. The technical training included topics on how to properly manage sheep by numbering them and how to prevent disease infection by isolating lambs and rearing them in hutches. In addition, the EVAP team distributed a perinatal infectious

disease search sheet and 11 major infectious disease fact sheets prepared by EVAP-2 and gave instructions on how to use these materials.

(6-3) Study tour for livestock raising (August 2019)





Based on the extension plan developed by the farmers' group, the EVAP team arranged a study tour to the Beit Qad Livestock Station of MOA and a livestock medicine manufacturer. At the Beit Qad Livestock Station, the farmers received information on the mechanism of artificial insemination and the traits of the parent sheep, while at the livestock medicine manufacturer, they received information on common sheep diseases in Palestine and how to treat them. Participating farmers commented that they were able to learn about the effectiveness of artificial insemination in producing sheep that meet market needs and how to prevent and control diseases so as not to reduce the number of livestock.

(7) Extension Step 7：Implementation of Profitability Assessment (April 2021)

Members of this group was all men, and 7 men participated in the workshop. The workshop was facilitated by Mr. Ahmed Al-Boom, Ms. Ala' Alsayed and Ms. Noor, extension officers of Ramallah DOA, and the farmers were asked to fill in the forms and conduct the agricultural profitability assessment. Farmers who needed assistance in filling out the forms were assisted by extension officers.

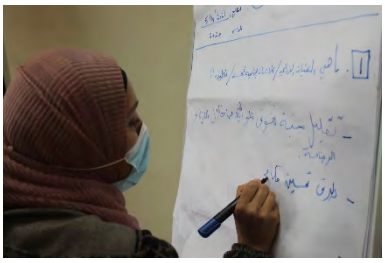
- Examples of changes in farmers' behavior that lead to higher farm income:



  - "I have implemented the techniques and methods to reduce lamb mortality that we learned in the EVAP-2 activities (isolation of newborn sheep, use of plastic gauges, heating, formula feeding, disinfection of the floor, disinfection of the udders). As a result, the mortality rate decreased, and profits increased."
  - "I have implemented new rearing methods such as segregation of sheep according to their growth stages and separation of barns."
  - "The application of the livestock management and feeding methods learned in the EVAP-2 technical training led to a reduction in pregnancy toxemia, lower abortion rates, and improved profits. The knowledge I gained about feed has enabled me to make decisions about the type, quality, and price of feed I need and to consult with suppliers when purchasing feed."



  - "Training in livestock health and disease management techniques at EVAP-2 has enabled us to learn livestock diseases and apply their treatments (appropriate medications, dosage, frequency and timing, application methods, etc.)."
  - "I have started direct sales of lambs to retail outlets and new traders, not just livestock markets."
  - "I have expanded cheese sales channels to include new markets (in the village, neighboring villages, and major cities), new traders, direct sales to retailers, and direct sales to consumers."
- The impacts of COVID-19 on farming



- In the COVID-19 disaster, demand for lamb was high and sales were not affected. On the other hand, sales of raw cheese were affected by the restrictions on movement due to the lockdown. In particular, March-April 2020, when the lockdown was implemented, was the peak period for raw milk production, and although raw cheese was produced as usual, it could not be sold at a reasonable price, resulting in inventory. The farmers, therefore, contacted the network of distribution channels and traders established through EVAP-2 activities, which made them decide that some of the raw cheese produced was boiled, stored, and sold only after market conditions improved. (At that time, the price of raw cheese dropped to 12 NIS/kg, but later boiled cheese could be sold at 30 NIS/kg).
- Due to the lockdown, some farmers were not able to purchase the feed they needed at the right time., Since the relationship among the farmers had improved through the EVAP-2 activities, they were able to temporarily borrow feed from other members. It was also difficult to secure the necessary amount of livestock medicine.
- The lockdown made it difficult for veterinarians to access farmers, which was addressed by practicing the methods learned during the EVAP-2 visits to pharmaceutical companies and technical training, and by exchanging information among farmer members.
- The lockdown disrupted the livestock vaccination program provided by MOA. The farmers were able to prevent diseases by purchasing vaccines from private vendors at their own expense.

(3-5) Beit Doqqo Grape Farmer Extension Group (Jerusalem)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
3-5	Beit Doqqo Grape Farmer Extension Group	Jerusalem	Beit Doqqo	Not registered	Newly organized for EVAP-2	16	0	16	Grape, olive, and almond production

(6) Extension Step 6: Technical training for farming improvement

(6-1) Technical training to control downy mildew on grapes (December 2018)

Last year, due to a longer period of rainfall than usual, “downy mildew” spread in Jerusalem, resulting in a significant yield loss. In order to prevent downy mildew, it is considered effective to spray preventive chemical before and during the early stages of the disease, and prune properly during the winter to organize crowded branches. The training, therefore, focused on downy mildew control by providing a more in-depth information for meeting the interest of farmers.





■ Contents of training

- What is IPM (Integrated Pest Management)?
- Importance of applying IPM to grapes
- What is downy mildew?
- How to apply IPM to grapes
- Chemical control of downy mildew on grapes
- Foliar application of chemical fertilizers
- Introduction of fungicides for grapevine downy mildew control based on the MOA’s manual (2018)

(6-2) Technical training on grape pruning (January 2019)



Training on pruning techniques was conducted to prevent downy mildew and improve fruit quality. During the training, staff from GDoERD demonstrated pruning techniques suitable for the Palestinian environment at the target farmers' grape farms.

- Comments of participating farmers:
  - "This is the first time I have learned a pruning method I did not know."
  - "I have not been able to prune properly because I have been reluctant to remove a lot of branches by pruning. I want to prune properly by considering the key points I learned in the training."
- Key points in pruning grapes in Palestine:
  - The tree should be planted as a hedge with a T-shape.
  - Remove crowded branches to improve air circulation and ensure even exposure to sunlight. This will also help prevent mildew.
  - Remove the tips of four or five buds from the root of the resultant mother branch (the resultant branch that grows in the spring and on which buds and fruits are produced). There should be about 15 resultant mother branches per fruit tree. If the number of shoots is less than 15 due to the removal of too many mother branches, the number of shoots should be adjusted by leaving more shoots on the mother branches.



  - Disinfect the scissors used for pruning frequently to prevent disease transmission.
  - When pruning, carefully find the holes where larvae of caddisflies live and remove them by inserting a wire.

(6-3) Technical training on sales promotion of grape (July 2019)





Technical training on sales promotion was conducted for gape farmers to explain key points and methods for promoting branding (differentiation from other regions). We checked the intentions of the farmers' group and found that they were highly motivated. They discussed the advantages of the Beit Doqqo grapes and the characteristics of farming in the region, including the high sugar content and the earlier shipping time than other regions. There was also discussion about brand names, packaging, etc., but it was decided that the farmers themselves would collect and adjust their opinions and discuss branding strategies again at a later date.

(6-4) Study tour to expand sales channels for grapes (September 2019)



The EVAP team arranged a study tour to visit 1) Grape Festival (held annually in Hebron in late September) and 2) FOOD EXPO (a trade show for agricultural processors organized by the Hebron Chamber of Commerce). The participating farmers were able to match up with grape juice makers, grape packers, and sellers, and they came to understand the needs of each vendor regarding variety and quality, got contact information of buyers.

(7) Extension Step 7：Implementation of Profitability Assessment (April 2021)



Members of this group was all men, and 8 men participated in the workshop. The workshop was facilitated by Mr. Taha Al-Jamal, Mr. Jamil Jahaleen, Mr. Saoud and Ms. Isra' Al-Natsheh, extension officers of Jerusalem DOA, and the participating farmers were asked to fill out the forms and conduct the agricultural profitability assessment. Farmers who needed assistance in filling out the forms were assisted by extension officers.

■ Examples of changes in farmers' behavior that lead to higher farm income:



- "It was difficult to purchase agricultural inputs at the right time due to the lockdown by COVID-19. The group made a joint purchase of chemical fertilizer (36 tons) at about 80% of the previous price (40 NIS to 31 NIS/bag)."
- "Based on the technical training of EVAP-2, I have defoliated and pruned trees to decrease the number of leaves, improve aeration, and prevent moisture in order to prevent diseases. As a result, vegetative growth was promoted, the trees became stronger, and fruit quality improved."
- "I carried out preventive spraying of pesticides against diseases, especially downy mildew."
- "I implemented the technique of using old trees (grafting with new branches using old trees as the base) for kernels and grapes, which I learned from a good practice farmer in Bethlehem."



- "I have conducted soil diagnosis prior to fertilizer application (sent samples to Birzeit University for analysis)."
- "In order to manage fungal diseases such as downy mildew, it is necessary to continuously check the weather forecast and take countermeasures such as preventive spraying with pesticides, which we learned in the technical training and put into practice. As a result, the outbreak of downy mildew subsided in a short period of time."
- "After the EVAP-2 activities, I started to gather information on my own and look for new places to sell my products. I believe now that marketing is about knowledge and relationships."
- "In consideration of traders' demands, we have set up A, B and C grades for grapes, and we have selected grapes and set different prices for each grade."
- "Through the EVAP-2 activities, we learned that there are other places to sell our products besides the wholesale market, and we started to use our network of the EVAP-2 activities to sell directly to retailers and deal with new traders under the influence of COVID-19. We also used Facebook to promote and sell our produce."

■ The impacts of COVID-19 on farming

- The lockdown caused by the COVID-19 epidemic allowed for more time than usual for vineyard work, including harvesting of grape leaves, which improved grape production and quality. The harvesting of grape leaves coincided with the month of Ramadan, resulting in high demand and higher than usual prices (70NIS to 75NIS/3kg).
- Sales outside the region were affected by restrictions on the movement of people and goods due to the spread of COVID-19. We tried to sell directly to markets in and near the villages, to retailers and traders, and through Facebook.

(3-6) Al Sawahreh Livestock Farmer Extension Group (Jerusalem)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
3-6	Al Sawahreh Livestock Farmer Extension Group	Jerusalem	Al Sawahreh	Registered	New extension group nominated by DOA	24	7	31	Sheep and goat raising

(6) Extension Step 6: Technical training for farming improvement

The following technical trainings were carried out ahead of schedule by changing the order of extension steps to meet the needs of farmers' group that should coincide with the lambing season.

(6-1) Technical training on livestock hygiene (2019 February)



In response to the needs of both livestock farmers' groups, technical training on livestock health was conducted. The lecturers were officials from the Veterinary Services Department who participated in the pre-training guidance. However, the presentation did not go according to the pre-training guidance and was based on the subjective view of each lecturer. In the future, it is necessary to consider who should be the lecturers for technical training and how to conduct technology transfer to them.

(6-2) Technical training on livestock feeding management (the 1st session) (February 2019)



Technical training on livestock feeding management was conducted by the extension officer in charge of animal husbandry at Jerusalem DOA. As the lecture points had been confirmed in advance, the lecturers tried to follow the presentation and deliver the contents to farmers in an easy-to-understand manner. In particular, the extension officer from Ramallah DOA seemed to have studied feedstuff very well. In both groups, the content of the presentations did not necessarily match the actual situation of farmers, as they are grazing throughout the year, and this needs to be improved.

(6-3) Matching with feed suppliers for group purchases (May 2019)



Three members of the livestock farmers' group visited a feed company in Nablus district. The group had visited this feed company once before during Extension Step 3: Market Opportunity Finding, and afterwards, the group members purchased feed on a trial basis and found it to be of good quality, so they visited the company again this time to negotiate a group purchase. When purchasing as a group, the group is able to purchase at wholesale price instead of retail price, which reduces the cost of purchase. In addition, the wholesale price at the feed company in Jerusalem is 1,800 NIS per ton, but this company's price is 1,650 NIS per ton, which leads to cost reduction. However, the group was not able to decide on the purchase during this visit and decided to consult with

other members before making a final decision.

(6-4) Technical training on livestock management (the 2nd session) (July 2019)





Extension officers from Jerusalem DOA served as instructors and conducted the same technical training as above. In addition, a perinatal infectious disease search sheet and fact sheets on 11 major infectious diseases were distributed to participants, and to encourage the farmers to posted them in the barn so that they could refer to the sheets at any time for identification and prevention of infectious diseases.

(6-5) Study tour for livestock management (August 2019)

Based on the extension plan developed by the farmer group, a study tour was conducted at the Beit Qad Livestock Station of MOA and a livestock medicine manufacturer. At the Beit Qad Livestock Station, the farmers received information on the mechanism of artificial insemination and the traits of the parent sheep, while at the livestock medicine manufacturer, they received information on common sheep diseases in Palestine and how to treat them. Participating farmers commented that they were able to learn about the effectiveness of artificial insemination in producing sheep that meet market needs and how to prevent and control diseases so as not to reduce the number of livestock.

(7) Extension Step 7：Implementation of Profitability Assessment (April 2021)



This group was mix gender group, and 8 men and 1 woman participated in the workshop. The workshop was facilitated by Mr. Jehad Al-Bargouthi (Director of Extension), Mr. Jamil Jahaleen and Ms. Isra' Al-Natsheh of Jerusalem DOA. The farmers were asked to fill in the forms themselves for assessing agricultural profitability. Farmers who needed assistance in filling out the forms were assisted by extension officers.

■ Examples of changes in farmers' behavior that lead to higher farm income:

- "We have been able to purchase a total of about 250 tons of feed from several feed companies, including those we visited during the EVAP-2 activities, saving 100-150 NIS per ton and getting the feed we need in a timely manner. We also plan to jointly purchase livestock medicine."



- "The information and knowledge gained from the EVAP-2 activities has improved the price and nutritional value of feed and feeding methods. One farmer, who used to feed concentrates, gradually switched to feeding both concentrates and wheat straw, which resulted in improved animal health and lower feed costs. Another farmer used to feed a high nutrient rich concentrate containing protein, but decided to feed a different type of feed as well, considering the physiological condition of the livestock. The result was fewer abortions and lower feed costs."
- "The information and knowledge gained from the EVAP-2 activities enabled them to judge livestock diseases by themselves and take appropriate actions in a timely manner. Methods of rearing and management were improved, such as isolation of lambs, division of barns, improved feeding, and efficient and timely response to

livestock diseases."

- "Having learned the importance of information gathering during the EVAP-2 market visit, I collected information on the prices of raw cheese in various sales channels from other farmers, traders, and sales offices by myself. By negotiating with multiple sellers, I was able to increase the selling price. He also collected information on new sales channels and sold cheese and Jameed (dried yogurt) to the Jerusalem market through new traders and middlemen, even during the lockdown."
- "Having learned the importance of information gathering during the EVAP-2 market visit, I collected information on the prices of raw cheese in various sales channels from other farmers, traders, and sales offices by myself. By negotiating with multiple sellers, I was able to increase the selling price. I also collected information on new sales channels and sold cheese and Jameed (dried yogurt) to the Jerusalem market through new traders and middlemen, even during the lockdown."
- "Through their participation in EVAP-2 activities, I have come to recognize the importance of continued participation in technical training and extension programs to improve farming, production, and profitability."
- "By collecting price information and information on consumer needs through social networking sites, and by communicating the information ourselves, we have improved our sales channels and sales prices."
- "Through our participation in EVAP-2 activities, we realized that we were buying feed at a high price and were looking for alternatives. With the support of a local NGO (Jerusalem for Women), we started using discarded bread as an inexpensive feed."



■ The impacts of COVID-19 on farming

- The lockdown (after March 2020) disrupted the livestock vaccination programs (brucellosis, foot-and-mouth disease, sheep pox, etc.) provided by MOA, resulting in increased abortions, lamb deaths, which increased expenditure on livestock medicines, and serious economic losses.
- Some farmers were short of cash due to lower-than-usual sales, and some feed and livestock medicine dealers only accepted advance payment in cash.

Target farmer groups the 4th Cycle

The target districts for the 4th Cycle are Bethlehem and Hebron in the southern region of the West Bank including the Central Highlands and East Slope areas of the agro-climatic zone, and the areas are under the jurisdictions of Bethlehem DOA, Hebron DOA, North Hebron DOA, Yatta DOA, and South Hebron DOA. EVAP-2 activities for the 4th Cycle were started in October 2019. The profile of the target farmers' groups and their activities in the 3rd contract period are as follows.

(4-1) Al Khader Grape Farmer Extension Group (Bethlehem)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-1	Al Khader Grape Farmer Extension Group	Bethlehem	Al Khader	Not registered	Newly organized for EVAP-2	14	4	15	Grape production

(1) Extension Step 1：Willingness and Readiness Confirmation (October 2019)

(1-1) Extension Step 1-2：Willingness and Readiness Confirmation Workshop

- Status: Newly formed grape farmer groups for extension activities in EVAP-2
- Willingness to participate: All participants (members: 14 males and 4 females) understood the concept of the

project and agreed to participate in the activities. One male and one female leaders were selected.

- Current problems recognized by farmers: i) market problems (lack of sales channel, high competition, inability to export), ii) lack of agricultural equipment, iii) weather conditions, iv) inappropriate pesticides, poor quality of pesticides, v) price of seedlings, vi) damage caused by wild deer and other animals.



(1-2) Extension Step 1-3: Discussion on Gender Awareness and Consideration

The following gender consideration measures were prepared for this group of farmers by the extension officers of DOA in charge.

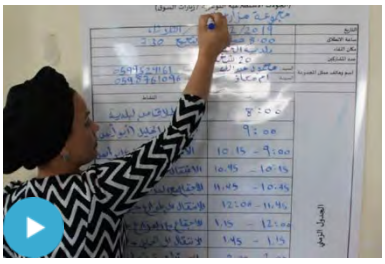
- Women members are involved in the entire process related to grape cultivation, especially in the harvesting of grape leaves. Women are also involved in the decision-making process to some extent.
- As the target area is close to Bethlehem city, there are various sales channels (wholesale market, retail stores, direct sales, etc.) and women are involved in the selling process.
- The women in the group do not have any problem in sitting with the men. Access to the meeting place is also good, so there is no problem.
- In this discussion, the following data on "who in household are engaged in agricultural activities?" were collected from farmers in Extension Step 1-2: Willingness and Readiness Confirmation Workshop.

Activities	Female (No.)	Both (No.)	Male (No.)	Total (No.)	Female (%)	Both (%)	Male (%)
Deciding cultivated crops	0	6	10	16	0.0%	37.5%	62.5%
Purchase of seeds/other inputs	2	2	12	16	12.5%	12.5%	75.0%
Sowing/ transplanting	0	4	10	14	0.0%	28.6%	71.4%
Pesticide application	1	1	14	16	6.3%	6.3%	87.5%
Irrigation	2	2	10	14	14.3%	14.3%	71.4%
Picking/ harvesting	3	10	3	16	18.8%	62.5%	18.8%
Marketing/ selling	5	1	10	16	31.3%	6.3%	62.5%
Income control	5	8	2	15	33.3%	53.3%	13.3%

(2) Extension Step 2: Awareness Creation Tour

(2-1) Extension Step 2-1: Participatory Tour Planning Workshop for Awareness Creation Tour (November 2019)

Unlike vegetable cultivation, it is not easy to change the cultivation environment of grapes, so the group selected a neighbouring good practice farmer with a similar cultivation environment to their own. The problem with grapes is that they tend to be harvested at a concentrated time, resulting in low shipping prices. There was a tendency to select good practice farmers who have adopted measures to deal with this problem. The following good practice farmer was selected as the destination for the tour.



- A farmer introducing early maturing varieties of grapes to increase shipping prices (Hebron)
- A farmer grading and sorting grapes by variety for shipment (Hebron)
- A farmer diversifying grape varieties to reduce planting and market risks (Hebron)

(2-2) Extension Step 2-2：Awareness Creation Tour (December 2019)

■ Good practice farmers visited by the group

- A farmer introducing early maturing grape varieties to increase shipping prices (Hebron)
- A farmer diversifying grape varieties to reduce planting and market risks (Hebron)

A group of grape growers in Bethlehem is suffering from price gouging due to the concentration of harvest time. A visit to good practice farmers growing early grape varieties in Hebron confirmed that although intensive cultivation techniques are required, the grapes can be harvested before the summer season when there is a risk of drought and thus have the potential to provide early income. At the suggestion of the participating farmers, members acquired seedlings of an early maturing variety from the good farmer and started cultivation on a trial basis.



■ Comments from participating farmers

- "Although women are also involved in agricultural work, the information provided to women in technical extension is limited to the field of agricultural processing. I would like you to provide information on cultivation techniques and other areas besides agro-processing." (Female farmer)
- "In Bethlehem, we will work on pruning from late January through March, so we would like to have technical training prior to that time."

(3) Extension Step 3: Market Opportunity Finding

(3-1) Extension Step 3-1: Participatory Tour Planning Workshop for Market Opportunity Finding (February 2020)

This grape farmer group is facing the challenge of lower market prices due to the concentration of shipping times. As a countermeasure, they are interested in introducing early and late ripening varieties to diversify the shipping period and selling directly to retailers instead of through traders. They also showed an interest in agro-processing such as grape molasses (molasses), dried grapes, and pickled grape leaves. Therefore, in order to understand the market needs for these products, the following wholesale markets, retail stores dealing with processed grape products, and urban fruit and vegetable stores, with which the farmers have not dealt with before, were selected.





- Baita Wholesale Market (Nablus district)
- Bas Baradi (retail store selling processed Palestinian products) (Ramallah district)
- Nablus Market (fruit and vegetable market in urban) (Ramallah district)

(3-2) Extension Step 3-2: Market Opportunity Finding (February 2020)

Participating farmers were able to understand the different needs and trading methods of the wholesale market, the needs of retailers and consumers that they had never dealt with before and were able to obtain information on new trader contacts.

■ Markets visited by the farmers

- Baita Wholesale Market (Nablus district)
- Bas Baradi（retail store selling processed Palestinian products) (Ramallah district)
- Nablus Market (fruit and vegetable market in urban) (Ramallah district)

■ Comments from participating farmers:



- "The traders at the Baita wholesale market have never dealt with Bethlehem grapes before, so we want to start trial trading so they can see the high quality."
- "The Bethlehem and Hebron traders that we usually deal with sometimes cheat us, so we want to start dealing with Nablus traders as well to diversify our trading partners."
- "Nablus is a long way away, so if you are dealing with traders in Nablus, you could lower your transportation costs by shipping them together as a group."
- "We are aware of the high quality of our grapes, so we would like to differentiate ourselves from other regions by using cardboard saying "from Bethlehem" so that people can identify where our grapes come from."
- "In the Hebron wholesale market, grapes are traded by box due to the high volume of production, but in the Nablus region, grapes are traded by kilogram and the market price is higher."



- "I've found that shipping in old used cardboard boxes sometimes lowers the price."
- "Packaging, grading and sorting were found to affect prices."
- "We have found that consumers may be put off by the idea of putting pickled grape leaves in a reused plastic bottle. We also found out that the new plastic bottles aren't as expensive, so we'd like to change that."
- "Grape molasses (molasses) is often mixed with sugar, but it was found that consumers prefer it not to be mixed."

(4) Extension Step 4: Farming Improvement Planning with Extension Needs Identification (June 2020)

Twenty-one (21) farmers participated in this Step 4. First, previous Extension Step 2 and 3 were reviewed. It was found that some of farmers who participated in the Awareness Creation Tour (Extension Step 2) learned the importance of post-harvest grape management and started irrigation and fertilization after harvest. Other farmers also reported that they had reduced the amount of pesticide application after learning that they were over-applying in pesticides. Although they received a lot of market information during Extension Step 3, the farmers decided that it would be better not to dare to change the market after analyzing the information in detail. The technologies that the farmers wanted to acquire in future technical trainings were technology to reduce production costs and technology to improve grape production and quality



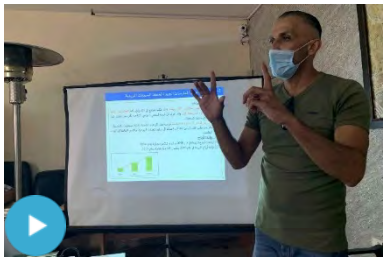
■ Target of activity selected by farmer group (crop/livestock/product)
- Existing grape varieties (improvement of existing activities)

■ Training modules selected by farmer groups
- Study tour to good practice grape farmers in Hebron area
- Pest and disease management of grapes
- Improvement of grape quality
- Downy Mildew control
- Pest management of grapes and mixed use of pesticides

(5) Extension Step 5: Farm Record Keeping for Profitability Increase (September 2020)

The training was led by Mr. Hussien Atteyeh and Mr. Yousif Salah of Bethlehem DOA, who taught the grape growers how to record their farming activities. Participating farmers commented, "We will be able

to know the net income of each variety and processed product through the farm records.", "We are aware that we over-applied pesticides, so we would like to know the cost of pesticides by keeping farm records.", and "By keeping records of pesticide application, I would like to know the appropriate timing of application and reduce the amount of pesticide application."

(6) Extension Step 6: Extension Activities for Farming Improvement

(6-1) Lecture on quality standards of Dibis (October 2020)

Group members learned that the Palestine Standards Institution (PSI) sets quality standards for each processed product, and planned a technical training on quality standards for processed grape products. Bethlehem DOA (Mr. Hussien, Ms. Kefah and Ms. Niveen) asked Mr. Mohammed Al-Dila and Ms. Taghreed Shhadeh of PSI to be lecturers and DOA organized the training. The lecture covered the safety and quality standards of PSI's grape syrup (Dibis) and raisins.



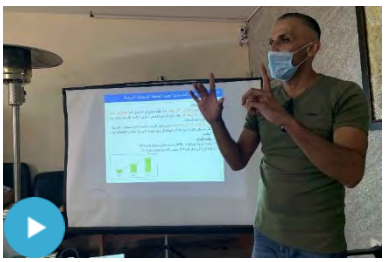
(6-2) Technical training on grape syrup (Dibis) processing (November 2020)

Based on the content of the lecture on quality standards for grape syrup, Bethlehem DOA conducted training on processing technology. During the visit of the processor, the group was informed that when the juice is boiled down to make concentrated juice, if it is boiled for too long, toxic hydroxymethylfurfural (an organic compound produced by the pyrolysis of sugars and carbohydrates) is synthesized and the quality is reduced. Therefore, verification on how many hours of boiling would be required to produce grape syrup that would meet PSI's quality standards was done with participation of Ms. Taghreed Shhadeh of PSI and farmers at a farmer's processing place. Four different processing methods with different boiling times and other conditions were tried to verify which method would meet the PSI standards.




(6-3) Technical training on grape disease and pest control techniques (January 2021)

Based on the needs of the farmer group, training on pest and disease control techniques for grapes was conducted. This group produces grapes in a hilly area, but because they rarely prune or pluck leaves, diseases such as downy mildew caused by overgrowth of branches and leaves frequently occur,

resulting in low yield and quality of grape berries. Mr. Hussien Attyeh, Ms. Niveen Salameh, and Mr. Yousif Salah of Bethlehem DOA served as instructors and gave lectures using the materials prepared by the Project team. During the training, the farmers also shared their experiences and knowledge with each other. The teaching materials were modified from those of the training course on pest control in vegetables for grapes. Comments from the participating farmers were as follows.





- "The information provided by EVAP-2 is new to us, and is relevant to the challenges we face. This information will definitely be useful in our future."
- "In years with high rainfall, we are troubled by a high incidence of downy mildew. I would like to combine the various pest control techniques I learned in this training course with the effective use of pesticide spraying."

(6-4) Technical training on heat treatment technology for quality improvement of grape syrup (Dibis) (February 2021)

A technical training on heat treatment technology was conducted to improve the quality of grape syrup (Dibis). The lecturers were Ms. Niveen Salameh and Mr. Yousif Salah of Bethlehem DOA, who explained the techniques to the farmers using the technical training materials prepared by EVAP-2. A representative of the Palestine Standards Institution (PSI), which sets quality standards for processed agricultural products, also participated as an outside lecturer. The Mayor of Al-Khader Municipality and the Director General of Bethlehem DOA also participated as observers. During the technical training, the recommended production process of grape syrup (Dibis) for quality improvement and the quality standards for grape syrup (Dibis) set by the Palestine Standards Institution (PSI) were explained.

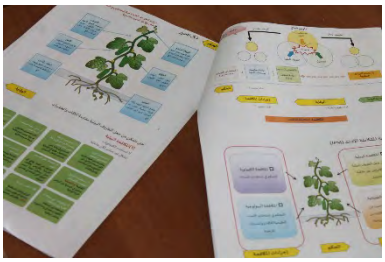




(6-5) Technical training on grape disease and pest control techniques (May 2021)

Based on the needs of the farmer group, a technical training on grape disease and pest control techniques was conducted (26 May 2021). The instructors were Mr. Yousif Salah and Ms. Niveen Salameh from Bethlehem DOA. The main training topics were 1) life cycle of grape pests, 2) stages of damage caused by pests, 3) timing and methods of appropriate control, and 4) good practices to reduce damage caused by pests.





(6-6) Technical training on grape quality and yield improvement technologies (1st time) (June 2021)

Technical training was conducted to improve the quality and yield of grapes to meet the market needs

(7 June 2021). The instructor was Mr. Odeh Sabarneh, Director of Horticulture, GDoERD, assisted by Mr. Hussein, Mr. Yousif Salah and Ms. Niveen Salameh from Bethlehem DOA. The main training topics were 1) proper planting spacing of grapes with and without irrigation, 2) pruning methods to promote growth, 3) supplementary irrigation techniques, 4) field tillage, 5) proper branching and pruning methods for different varieties, and 6) diseasd and pest control in accelerated cultivation. At the end of the training, the participating farmers asked for additional technical training to be conducted.




(6-7) Technical training on grape quality and yield improvement technologies (2nd time) (June 2021)

In response to requests from the farmer group for additional technical training, a second technical training on improving grape quality and yield was conducted (15 June 2021). The instructor was Mr. Odeh Sabarneh, Director of Horticulture, GDoERD, assisted by Mr. Hussein, Mr. Yousif Salah and Ms. Niveen Salameh of Bethlehem DOA. The first training topic was on vine management, while the second was on techniques related to quality control of grape berries and leaves (*Vine leaves are shipped as foodstuff in Palestine).




(6-8) Study tour to advanced grape farmers (June 2021)

Based on the technical training plan of the farmer group, a study tour was conducted to visit advanced grape farmers (23 June 2021). Two minibuses provided by JICA Palestine Office were effectively utilized for the tour, and a large number of farmers participated in the tour. The outline of the tour is as follows.

■ A farmer using sun drying facilities to produce high quality dried grapes and off-season processing (Hebron)




- The sun drying facility is used to prevent bird droppings and dust, which are the causes of quality deterioration of dried grapes, and to improve the quality of the dried grapes, which are shipped at a higher unit price. Since the facility is simple, using plastic and wood, it can be easily introduced by ordinary grape farmers.
- The dried grapes can be dried in one to two weeks instead of the usual two to three weeks, allowing for efficient production in a short period of time. In addition, the labor required for processing dried grapes by female farmers has been reduced.
- In order to equalize the workload, they sterilize grape juice by boiling and store it for a while. In the off-season, they produces and ships Malvan (a confectionery in which grape juice is concentrated, rolled out flat, and

hardened. Shelf life is usually about 6 months.). As a result, the unit price is about 20% higher than the general shipping price. If there are inquiries from retailers during the off-season, they are able to process and ship the products quickly. In Palestine, shipments of Malvan are generally concentrated right after the grape harvesting season (September-October), so prices are low.



■ A farmer producing high yielding, high quality grapes (Hebron)

- Leaf plucking is used to adjust sunlight exposure to the fruit to improve coloration and quality.
- Labor saving in disease and pest control is achieved through the use of mixed spraying of pesticides. (*) A method to control a large number of diseases and pests at once by mixing chemicals with different action and purpose, which saves time and labor, and synergistic effects of the chemicals can be expected. (Note that some ingredients cannot be mixed with others.
- In order to obtain the effect of liquid fertilizer in a short period of time, foliar spray fertilizer is used in combination.

(6-9) Network diagnosis of drip irrigation tubing (June 2021)





Extension officers from Bethlehem DOA visited the grape fields of farmers in the Al Khader Grape Farmer Extension Group to conduct a network diagnosis of drip irrigation tubing (28 June 2021). The results showed that the drip irrigation facilities were not fully effective due to low water pressure in the pumps and improper placement of the tubing. In addition, it was found that only about two-thirds of the recommended water requirement for grapes was being supplied. The extension officers suggested the following remedial measures: 1) replace inefficient pumps, 2) divide the tubing arrangement into two systems, 3) increase the water supply volume, 4) clean clogged emitters, and 5) repair damaged pipelines. The results of the field survey showed that many farmers in Palestine use drip irrigation facilities, but once the tubes are placed, many farmers do little or no maintenance afterwards. Since drip irrigation facilities are consumable, they need to be renewed periodically. In addition, groundwater in Palestine is highly saline, and farmers are often unable to irrigate their fields in sufficient quantities due to salt deposits on the tubes and emitters, causing them to clog. On the other hand, there were many cases where the tubes had deteriorated and leaked water, but the farmers were not aware of it.

(6-9) Survey on the introduction of mulching in grape fields (June 2021)



Mr. Adnan Ibrahim, a farmer who participated in the good practice tour to Hebron district conducted by EVAP-2, has introduced mulching in his grape field, and we conducted a survey on the introduction of mulching. He purchased the mulch after receiving advice from Mr. Abedul-Jawad Sultan, a grape farmer in Hebron, whom he visited during the study tour. The effects of mulching on grape fields include 1) effective use of irrigation water by preventing evaporation, 2) maintenance of soil moisture, 3) prevention of weed growth, 4) prevention of soil erosion, and 5) stabilization of soil temperature. In addition, technology transfer from farmer to farmer is

effective for the voluntary adoption of technology by farmers, and the role of extension officers in mediating such transfer will be particularly important in the future of agricultural extension in Palestine.

(7) Extension Step 7：Implementation of Profitability Assessment (December 2021)

The workshop was facilitated by Ms. Niveen, Ms. Feda', Mr. Hussien, and Mr. Yousif of Bethlehem DOA with technical assistance by Mr. Odeh Sabarneh, Director of Horticulture, GDoERD. The farmers were asked to fill in the forms themselves for assessing agricultural profitability.





(4-2) Janata Livestock Farmer Extension Group (Bethlehem)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-2	Janata Livestock Farmer Extension Group	Bethlehem	Janata	Not registered	Newly organized for EVAP-2	19	9	28	Sheep, Goat

(1) Extension Step 1：Willingness and Readiness Confirmation (2019 October)

(1-1) Extension Step 1-2：Willingness and Readiness Confirmation Workshop



- Status: Newly formed livestock (sheep, goat) farmer groups for extension activities of EVAP-2
- Willingness of participation: All participants (members: 19 males and 9 females) understood the concept of the project and agreed to participate in the activities. Two men and one woman were selected as leaders and contact persons.
- The current problems recognized by farmers: i) livestock diseases, ii) high mortality rate of newborn lambs, iii) shortage of veterinarians and poor quality of veterinary services, iv) fluctuating market prices of sheep, v) high prices of livestock feed, vi) poor quality of imported.

(1-2) Extension Step1-3: Discussion on Gender Awareness and Consideration

The following gender consideration measures were prepared for this group of farmers by the extension officers of the DOA in charge.

- Women are involved in shed cleaning, feeding, milking, and processing of dairy products. There is little involvement in decision making.
- The target farmers are Bedouin, and in many cases have conservative culture and practices. This point needs to be kept in mind in the future.
- Set up accessible meeting places so that women can easily participate. Female leaders were also selected to promote communication among female members. The time for tours and market visits will be decided after properly confirming the intentions of the women members.
- In this discussion, the following data on “who in household are engaged in agricultural activities?” was collected from farmers in Extension Step 1-2: Willingness and Readiness Confirmation Workshop.

Activities	Female (No.)	Both (No.)	Male (No.)	Total (No.)	Female (%)	Both (%)	Male (%)
Deciding cultivated crops	0	1	23	24	0.0%	4.2%	95.8%
Purchase of seeds/other inputs	1	10	16	27	3.7%	37.0%	59.3%
Sowing/ transplanting	16	4	7	27	59.3%	14.8%	25.9%
Pesticide application	23	1	2	26	88.5%	3.8%	7.7%
Irrigation	5	6	15	26	19.2%	23.1%	57.7%
Picking/ harvesting	2	9	15	26	7.7%	34.6%	57.7%
Marketing/ selling	0	1	23	24	0.0%	4.2%	95.8%
Income control	1	10	16	27	3.7%	37.0%	59.3%

(2) Extension Step 2: Awareness Creation Tour

(2-1) Extension Step 2-1: Participatory Tour Planning Workshop for Awareness Creation Tour (November 2019)



Many Bedouin farmers are engaged in coarse grazing on sloping land, and in recent years the decrease in grazing land d has become a major issue. In addition, miscarriage of parent sheep and disease infection of lambs in winter are also issues due to coarse grazing. Therefore, many farmers were interested in how to increase productivity per head and reduce mortality. For this reason, the following good practice farmers were selected as the destination for the tour.

- A farmer in Salfit district who devising breeding methods to reduce the number of abortions among sheep. (Salfit district)
- A farmer in Qalqiliya who has introduced a breed of sheep with high productivity to produce and sell dairy products directly (Qalqiliya district)

(2-2) Extension Step 2-2：Awareness Creation Tour (2019 December)

■ Good Practice Farmers visited by the group:

- A farmer in Salfit district who devising breeding methods to reduce the number of abortions among sheep. (Salfit district)
- A farmer in Qalqiliya who has introduced a breed of sheep with high productivity to produce and sell dairy products directly (Qalqiliya district)







The good practice farmer in Salfit district confirmed the importance of keeping lambs separate from their mothers in a rearing hutch to prevent infectious diseases. The participants suggested that the government should provide rearing hutches for lambs. However, the good practice farmer encouraged the farmers by saying "We don't know when we can improve the situation if we wait for the government support. The money needed is minimal. The loss of the lambs is much greater. We should start now with our own funds and not wait for government support." In addition, some farmers did not know that vaccines should be kept refrigerated as a rule. As a result of inappropriate vaccine storage and vaccination that they had practiced, some farmers perceived the vaccine to be ineffective, and it was found that there is a need to examine its effectiveness and cost-

effectiveness in the future.

- Comments from participating farmers:

- "Women are also involved in every process of animal husbandry. It was good to be able to participate in the tour. (Female farmers) (Note: Some of the extension officers expressed the view that women are only engaged in agro-processing, but we all agreed that in fact women are involved in all processes of livestock production, and that the image of women farmers = agro-processing is a stereotype.)

(3) Extension Step 3: Market Opportunity Finding

(3-1) Extension Step 3-1: Participatory Tour Planning Workshop for Market Opportunity Finding (February 2020)

This livestock farmer group is facing issues of livestock diseases and feeding, high mortality rate of lambs, and high cost of feed due to reduced grazing land. In order to deal with these issues, the following tour destinations were selected to purchase quality livestock medicine and feed at low cost.

- Al Hasad Co. (feed company) (Nablus District)
- Dana Company (livestock medicine manufacturer) (Nablus District)

This group is very conservative and refuses to allow women to participate in this step, claiming that the purchase of materials and the sale of agricultural products, which involves negotiations with vendors, are not roles for women. Special measures need to be considered in the future to reduce the information gap between men and women, which is one of the gender consideration policies of the Project.

(3-2) Extension Step 3-2: Market Opportunity Finding (2020 February)

Through the visits, the participating farmers were able to obtain information on new types of feeds, feeds for different breeding stages, ways to reduce feed costs, and information on livestock medicines to combat livestock diseases.

- Markets visited by the group:

- Al Hasad Co. (feed company) (Nablus District)
- Dana Company (livestock medicine manufacturer) (Nablus District)

- Comments of participating farmers:

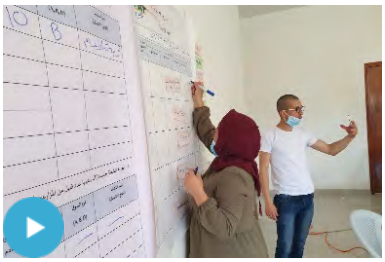
- "I learned about different types of feed that I didn't know before. The quality of the feed is better than Bethlehem's and we may be able to reduce the price by buying in bulk as a group."
- "We were able to get a lot of information on livestock medicines that will help us fight diseases, which is what we needed the most. As we did not have enough time today, we would like to visit livestock medicine suppliers again in the future EVAP-2 technical training to get more information."
- "I found out that it is cheaper to buy livestock medicine directly from the manufacturer (after the visit, many farmers purchased livestock medicine at their own expense). Also, they could buy them more cheaply by buying them as a group."
- "The livestock medicine dealers in Bethlehem were not very knowledgeable and unreliable. In the future, I will try to buy directly from the manufacturer to avoid being cheated."

(4) Extension Step 4: Farming Improvement Planning with Extension Needs Identification (June 2020)

Ten (10) farmers participated in the workshop. Extension Step 2 and 3 were firstly reviewed and it was found that 4 farmers had already implemented the lamb isolation techniques they learned in Extension Step 2, which significantly reduced the mortality rate. The techniques they would like to learn in future

technical trainings focused on improving productivity and reducing production costs.

- Target of activities selected by farmer groups (crops/livestock/products)
  - 1) Sheep rearing (improvement of existing activities)
- Training modules selected by farmer groups
  - (1) Breed improvement, (2) Livestock feed improvement, (3) Farm management and lambing techniques, (4) Livestock disease and hygiene management, (5) Study tour to a feed company and model farmers in Hebron district (participation by both men and women)



(5) Extension Step 5: Farm Record Keeping for Profitability Increase (September 2020)





The training was led by Mr. Ayman Zawahra and Mr. Mohammed Basha, livestock officers from Bethlehem DOA, who taught the farmers how to record their farming activities. Participating livestock farmers commented: "keeping farm records may help us reduce costs by clarifying the cost of feed and livestock medicine. It may also help reduce the mortality rate of new-born lambs, which is our biggest challenge."

(6) Extension Step 6: Extension Activities for Farming Improvement

(6-1) Study tour to a feed company and model livestock farmers (October 2020)





Based on the technical training plan formulated by the farmer group in Extension Step 4, a tour was organized to visit a feed manufacturer in Hebron that produces and sells livestock feed and to observe the sheep rearing methods of the model farmers. The participating farmers were able to obtain information from the feed company on the ingredients, types, feeding methods, and prices of the compound feeds they produce and sell. During the visit to the model farmers, they were able to gain knowledge on improved sheep breeds, how to divide the rearing area according to age in the barns, how to feed sheep by mixing grass and compound feed, and how to properly raise new-born lambs. Participating farmers commented: "The feeding program adopted by the model farmers was reasonable and effective." "We need to gradually change the breed of sheep we raise." "We should gradually change our sheep breeds." "Livestock epidemics can be prevented by taking a series of preventive measures taught by the model farmers." "The incidence of miscarriage can be reduced by proper breeding methods."





(6-2) Sheep feeding technique training (2020 November)




Bethlehem is an area in the West Bank where pastureland is decreased significantly. In order to maintain the number of sheep, it is necessary to switch to a feeding system that uses not only grass but also artificial feed. Therefore, EVAP-2 provided training on feeding techniques to meet the needs of farmers. The training was conducted by the officers of GDoERD and extension officers from Bethlehem DOA (Mr. Fathi Al-Bast and Mr. Mahmoud Shaheen). During the training, the technical materials prepared by EVAP-2 were used to explain the appropriate feeding program according to the growth stages (feed composition for each stage, cost, and impact of feeding on productivity). Participating farmers commented: “the new feeding method was efficient, rational, and convincing. I will be able to switch to this method soon since I got contact of feed suppliers and prices information during the study tour.”

(6-3) Technical training on sheep disease control (2020 December)




GDoERD and the Directorate General of Veterinary and Animal Health jointly conducted a training on sheep hygiene management techniques, giving lectures on the causes of diseases, symptoms, and preventive and remedial measures. In addition, a sheep perinatal disease search sheet and fact sheet prepared by the Project, which can be used to search for infectious diseases based on lamb symptoms, were distributed with explanation of their uses. The lecturers were Dr. Abdul Moa'ti Sharabati from the Directorate General of Veterinary and Animal Health and Mr. Mohammed Al-Basha, Mr. Yousif Obiat and Mr. Fathi Al-Bast from Bethlehem DOA.

(6-4) Technical training on safe and high-quality sheep milk production and dairy product processing (January 2021)



This technical training was arranged based on a request of the group who wanted to improve the process of sheep milk production and dairy processing, in which women play important roles in the value chain of sheep milk and dairy products. The technical training was targeted at women livestock farmers who are often involved in sheep milk production and dairy products processing, and was conducted by Ms. Kefah Al-Sahouri, a female extension officer in charge of livestock production at Bethlehem DOA, using materials prepared by the Project team.

■ Comments from the participating women farmers were as follows:

- “We use old plastic bottles to collect sheep's milk, but they are not cleaned properly. I would like to use clean bottles and clean the bottles properly for the safety of the consumers.”

- "In the past, we did not sterilize the udders of the sheep before milking because it was too time-consuming. Now that I know that it can cause contamination of the milk and can be dangerous to the consumer, I need to sterilize the udders properly."
- "I have not been properly storing sheep milk after milking. I would like to manage it properly based on the knowledge I gained from the training."



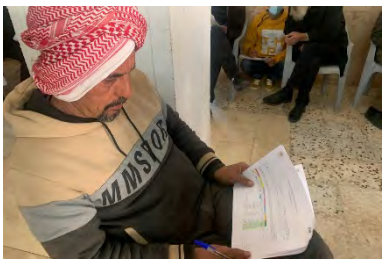
(6-5) Technical training on sheep farm management (January 2021)





Based on the needs of the farmer group, a technical training on sheep farm management was conducted. Ms. Tahani Dar'awi, Ayman Zawahreh, and Yousif Obaiyat, extension officers from Bethlehem DOA and Mr. Fathi Al-Bast from GDoERD served as lecturers. The main topics were proper sheep management, disease prevention measures, and sheep health management.

(7) Extension Step 7：Implementation of Profitability Assessment (December 2021)





The workshop was facilitated by Ms. Tahani, Ms. Niveen, Mr. Hussien, Mr. Ayman, Mr. Mohammed, Mr. Yousif of Bethlehem DOA with technical assistance by Mr. Fathi Al-Bast from GDoERD. The farmers were asked to fill in the forms themselves for assessing agricultural profitability.

(4-3) Sa'eer Farmer Extension Group (Hebron)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-3	Sa'eer Farmer Extension Group	Hebron	Kwazeba-Sa'eer	Not registered	Newly organized for EVAP-2	8	2	10	Vegetable production

(1) Extension Step 1：Willingness and Readiness Confirmation (October 2019)

(1-1) Extension Step 1-2：Willingness and Readiness Confirmation Workshop



- Status: Newly formed vegetable farmer groups for extension activities of EVAP-2
- Willingness to participate: All participants (members: 8 males and 2 females) understood the concept of the project and agreed to participate in the activities. One male was selected as the leader. The number of members is expected to increase in the future, as some of

the participants said they would like to invite other farmers to the activities.

(1-2) Extension Step 1-3: Discussion on Gender Awareness and Consideration

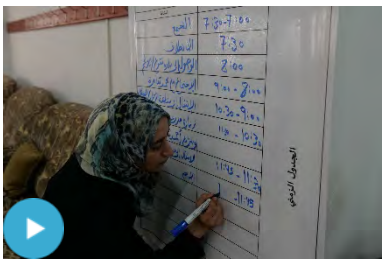
The following gender consideration measures were prepared for this group of farmers by the extension officers of the DOA in charge.

- In this region, relatively poor people are engaged in agriculture. The targeted farmers, not only women farmers, have limited access to extension services and technical information.
- Women are essentially involved in all processes of agricultural activities, but pesticide spraying, and marketing are done by men. Water scarcity is a problem in the area, and women's labor burden for irrigation is greater than in other areas.
- The women in the group do not have any problem sitting with men, but they do not like to be photographed. There are female members who have difficulty in reading and writing.
- There is no need to arrange a separate bus for women to travel on tours, etc. (no problem if they are present), but if they travel after dark, transportation from the center of town to their homes should be considered.
- In this discussion, the following data on "who in household are engaged in agricultural activities?" were collected from farmers in Extension Step 1-2: Willingness and Readiness Confirmation Workshop.

Activities	Female (No.)	Both (No.)	Male (No.)	Total (No.)	Female (%)	Both (%)	Male (%)
Deciding cultivated crops	1	5	4	10	10.0%	50.0%	40.0%
Purchase of seeds/other inputs	1	3	6	10	10.0%	30.0%	60.0%
Sowing/ transplanting	1	5	4	10	10.0%	50.0%	40.0%
Pesticide application	1	0	9	10	10.0%	0.0%	90.0%
Irrigation	1	1	8	10	10.0%	10.0%	80.0%
Picking/ harvesting	1	8	1	10	10.0%	80.0%	10.0%
Marketing/ selling	1	0	9	10	10.0%	0.0%	90.0%
Income control	1	3	6	10	10.0%	30.0%	60.0%

(2) Extension Step 2: Awareness Creation Tour

(2-1) Extension Step 2-1: Participatory Tour Planning Workshop for Awareness Creation Tour (November 2019)



The participating farmers recognized the high risk of price fluctuation due to limited variety of crops and the lack of water for irrigation as challenges. Therefore, they were highly interested in crop diversification and productivity improvement and following Good Practice Farmers were selected as the destination for the tour.

- A farmer introducing grafted seedlings to increase yield and stabilize production of tomatoes and cucumbers (Bethlehem)
- A farmer diversifying their crops by introducing vegetables with high market value (Jericho)
- A farmer keeping farm records to increase profits (Jericho)

(2-2) Extension Step 2-2：Awareness Creation Tour (December 2019)



■ Good practice farmers visited by the group:

- A farmer introducing grafted seedlings to increase yield and stabilize production of tomatoes and cucumbers (Bethlehem)
- A farmer diversifying their crops by introducing vegetables with high market value (Jericho)
- A farmer keeping farm records to increase profits (Jericho)

The good practice farmer visited in Jericho grow a variety of crops according to the market demand, especially the indigenous variety of pumpkins, which they ship to the

Hebron market and earn high profits. He said, "When farmers sell their crops, they should focus on crops that can be bought by kilogram, because crops sold by box are less profitable and crops sold by weight (kg) are more profitable." In Extension Step 3, market situation is analyzed by categorizing by type, which is exactly the same as the idea of this good practice farmer.

- Comments from participating farmers and extension agents
  - "I was not aware of the high returns from shipping indigenous pumpkins to the Hebron wholesale market. I wonder if it could be grown in our area."
  - "I would like to try crop diversification on a small plot first."
  - "It is interesting to see a systematic approach to extension activities like the EVAP Extension Package for the first time. Farming records have never been recommended to farmers before." (Extension Agent, Hebron DOA)

(3) Extension Step 3: Market Opportunity Finding

(3-1) Extension Step3-1: Participatory Tour Planning Workshop for Market Opportunity Finding (February 2020)




This group member farmers grow tomatoes, cucumbers, spinach, etc., but due to the small number of items, they are susceptible to market price fluctuations. Therefore, they are interested in introducing new crops as well as improving and stabilizing the profitability of existing crops, and to gather relevant market information, the following wholesale markets, which they have never traded with before, were selected for the tour.

- Baita wholesales market（Nablus）
- Bethlehem wholesales market（Ramallah）

(3-2) Extension Step3-2: Market Opportunity Finding (February 2020)




Participating farmers visited several wholesale markets and compared them with the Hebron wholesale market where they usually do business. In particular, they could understand the differences in prices, timing, variety, and quality needs of each wholesale market, and recognize the direction that farmers should take in the future. It is also interesting to note that the farmers realized the need to reduce the scale of the pepper cultivation they have been doing.

- Markets visited by the group:
  - Nablus Wholesale Market (Nablus) (Changed due to lack of coordination with Baita Wholesale Market)
  - Ramallah wholesale market (Ramallah) (Changed due to lack of coordination with Bethlehem wholesale market)
- Comments from the participating farmers
  - "Ramallah wholesale market is different from Hebron wholesale market in that the produce comes from all

over the West Bank and the traders come from all over. Therefore, it is easy to start business with new traders."

- "Ramallah wholesale market has vegetables coming from all over the region, so it is easy to see which region the produce is coming from at each time of the year and the status of vegetable production in the West Bank as a whole."
- "In terms of tomato varieties, we have recently found that there is a high demand for Sara and Izabella varieties, as well as bunch cherry tomatoes."
- "We have learned that packing, grading, and sorting (packing, grading, and sorting) affect the price."
- I found out that prices are different between Hebron and Nablus, so I want to make sure to call ahead to confirm. When dealing with traders in Nablus, I want to make sure that we deal as a group to reduce transportation costs.
- I would like to use new corrugated cardboard because I found out that shipping in old used corrugated cardboard sometimes lowers the price."
- "I realized that the prices I usually deal with are lower than other wholesale markets. We were in the red last year, but we would have been in the black if we had shipped to the Nablus wholesale market."
- The EVAP-2 market visit was very effective. Marketing was our key problem."

(4) Extension Step 4: Farming Improvement Planning with Extension Needs Identification (June 2020)



Fourteen farmers participated in the workshop, which started with review of Extension Step 2 and 3. Some of the farmers who participated in the Awareness Creation Tour in Extension Step 2 were trying to get in touch with the good practice farmers and dealers of agricultural materials they visited to get grafted seedlings and new varieties of seedlings. However, due to the lockdown by COVID-19, they were not able to obtain seedlings. The technologies they wanted to acquire in the future technical training were pest and disease control of vegetables, optimization of irrigation water quantity, fertilization of vegetables, and vegetable production using grafted seedlings.

- Activity targets selected by farmer groups (crops/livestock/products)
  - 1) Tomato (improvement of existing activity), 2) Cucumber (improvement of existing activity), 3) Grafted tomato and cucumber seedling cultivation (new activity)
- Training modules selected by farmer groups
  - 1) Optimization of irrigation water quantity, 2) Fertilization plan for vegetables, 3) Study tour to good vegetable farmers in Hebron, 4) Pest and disease control for vegetables, 5) Grafted seedling cultivation

(5) Extension Step 5: Farm Record Keeping for Profitability Increase (September 2020)





Ms. Haya Zaaqiq, Ms. Faten Al-Tamimi, and Ms. Fadwa Abu Sharar of Hebron DOA served as instructors for the technical training. The participating farmers commented that they would like to keep records of their farming activities in order to control water costs, reduce production costs, check the effectiveness of pesticide applications, and record cultivation procedures to increase crop yields.

(6) Extension Step 6: Extension Activities for Farming Improvement

(6-1) Technical training on pest and disease control of vegetables (December 2020)



Based on the needs of the farmer group, technical training on pest and disease control for vegetables was conducted. The group members grow vegetables such as cucumbers and tomatoes in plastic greenhouses, but they are facing the problem of low and unstable yields due to frequent outbreaks of pests and diseases. In addition, they were not able to accurately identify types of diseases from symptoms of crops, which resulted in high costs for agricultural chemicals. Ms. Haya Zaaqiq, Ms. Faten Al-Tamimi, Ms. Fadwa Abu Sharar, and Mr. Majdoleen Rajabi of Hebron DOA served as instructors for this training and gave lectures using the teaching materials prepared by the Project. Comments from the participating farmers were as follows:





- "I did not know that there is a pre-harvest period after pesticide application to ensure the safety of the crop."
- "I have not done much crop rotation, so I have a lot of soil-borne diseases."
- "I thought that planting more seedlings per area would increase yield, but we felt that the yield would be lower in the end due to the increased susceptibility to disease. I think it is necessary to observe the proper planting interval for each crop."
- "The Sa'eer area in Hebron district is located in a mountainous region and has relatively cool temperatures. Therefore, unlike the Jordan Valley, it is not possible to disinfect the soil with high temperature by covering it with plastic sheets during the summer. As a result, the amount of agricultural chemicals used is high. The cost is about 1,100 to 1,300 NIS per household. We want to do something about it."
- "We found out that in many cases, growth problems are caused by lack of proper fertilizer application plans. If we can understand the soil condition and make an appropriate fertilizer plan, this will be alleviated."

(6-2) Technical training on fertilization for vegetables and rainfed field crops (February 2021)



Technical training on fertilizer application technology for vegetables and rainfed field crops was conducted. The lecturers were Ms. Haya Za'aqeeq, Ms. Faten and Ms. Majdoleen from Hebron DOA, who explained to the farmers using the technical training materials prepared by EVAP-2. The content of the training was on fertilizer application and pest and disease control techniques for vegetables grown in open fields and greenhouses. The following comments were given by participating farmers.



- "Through discussion with other farmers, I realized that I have been applying excessive amounts of chemical fertilizers."
- "I learned that we need to apply fertilizer at the right time according to the growth stage of the crop."
- "In my village, some farmers do not apply chemical fertilizer at all, while others continue to apply fertilizer until just before the harvest, so we need to clarify the appropriate timing of fertilizer application."

- "I have never done soil diagnosis before, but I would like to do it in order to understand the condition of the soil and apply fertilizer appropriately."
- "I learned that in greenhouses, it is necessary to do leaching from time to time to wash out the salt accumulated in the soil."
- "I would like to improve the use of fully ripe compost as I have been using immature compost with insufficient decomposition."

(6-3) Technical training on the use of grafted seedlings for vegetables (February 2021)

Based on the needs of the farmer group, technical training on the use of grafted seedlings for vegetables was conducted. Ms. Haya Za'aqiq, Ms. Faten, and Ms. Majdoleen from Hebron DOA served as lecturers for the training by using the technical training materials prepared by EVAP-2. The following comments were given by participating farmers.







- "Grafting is a new technology in our area. We would like to try grafting cucumbers in the next season, which starts in April/May, if we can avoid soil-borne diseases."
- "The temperature in our area is lower than in the Jordan Valley, so we cannot use solar soil disinfection with plastic sheets. Therefore, we would like to use grafted seedlings that are effective against soil diseases."

(7) Extension Step 7：Implementation of Profitability Assessment (December 2021)

The workshop was facilitated by Ms. Ruba, Ms. Haya, Ms. Majdoleen, Ms. Faten, and Ms. Anwar of Hebron DOA. The farmers were asked to fill in the forms themselves for assessing agricultural profitability. Mr. Osama Jarrar, General Director of Hebron DOA and Mr. Majdi Amro, General Director of North Hebron DOA also participated in the workshop as observers.





(4-4) Agriculture Knowledge Leading Group in Halhoul (North Hebron)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-4	Agriculture Knowledge Leading Group in Halhoul	Hebron	Halhoul	Not registered	Newly organized for EVAP-2	17	6	23	Grape, grape processing production

(1) Extension Step 1：Willingness and Readiness Confirmation (October 2019)

(1-1) Extension Step1-2：Willingness and Readiness Confirmation Workshop



- Status: Newly formed group of grape farmers for extension activities of EVAP-2
- Willingness to participate: All participants (members: 17 males and 6 females) understood the concept of the project and agreed to participate in the activities. One male and one female leader were selected.
- Problems perceived by farmers at this time: i) market problems (lack of sales channels, high competition), ii) low selling prices, iii) low soil fertility, iv) inappropriate selection of pesticides, v) inability to diagnose diseases, vi) possible price manipulation by traders, vii) expensive agricultural input goods.

(1-2) Extension Step1-3: Discussion on Gender Awareness and Consideration

The following gender consideration measures were prepared for this group of farmers by the extension officers of the DOA in charge.

- The women members are engaged in grape leaf and fruit harvesting, pruning, weeding, production of processed grape products and their sales. For the sales of processed grape products, the group has not been able to select the most appropriate sales destination due to lack of market and vendor information and time constraints.
- The women in the group do not have any problem in sitting with the men. Since the target women are older and not so engaged in household chores, they have a lot of freedom in setting the time for meetings and tours.
- Female leaders have also been selected to facilitate communication among female members.
- In this discussion, the following data on "who in household are engaged in agricultural activities?" were collected from farmers in Extension Step 1-2: Willingness and Readiness Confirmation Workshop.

Activities	Female (No.)	Both (No.)	Male (No.)	Total (No.)	Female (%)	Both (%)	Male (%)
Deciding cultivated crops	1	6	12	19	5.3%	31.6%	63.2%
Purchase of seeds/other inputs	1	2	15	18	5.6%	11.1%	83.3%
Sowing/ transplanting	1	5	14	20	5.0%	25.0%	70.0%
Pesticide application	0	2	18	20	0.0%	10.0%	90.0%
Irrigation	0	6	13	19	0.0%	31.6%	68.4%
Picking/ harvesting	0	16	5	21	0.0%	76.2%	23.8%
Marketing/ selling	0	8	13	21	0.0%	38.1%	61.9%
Income control	0	12	8	20	0.0%	60.0%	40.0%

(2) Extension Step2: Awareness Creation Tour

(2-1) Extension Step2-1: Participatory Tour Planning Workshop for Awareness Creation Tour (November 2019)



The following Good Practice Farmers were selected as the destination for the tour.

- A farmer diversifying varieties of fruits (Bethlehem)
- A farmer introducing varieties to produce grape leaves (Jericho)
- A farmer keeping farm records to increase profitability (Jericho)

(2-2) Extension Step2-2：Awareness Creation Tour (December 2019)

■ Good practice farmers visited by the group:

- A farmer diversifying varieties of fruits (Bethlehem)
- A farmer introducing varieties to produce grape leaves (Jericho)

- A farmer keeping farm records to increase profitability (Jericho)

In Hebron district, grape leaves are widely consumed and distributed, while Jericho district, grape leaves are not favoured by consumers and are rarely distributed. The good practice farmer visited grows grape leaves in Jericho during the off season and earns high profits. The group members who visited this farmer did not understand his explanation at first and said, "Our grape leaves are of higher quality. We don't need the varieties that the good practice farmer in Jericho grows." In response, an extension officer from the DOA said, "The purpose of the Awareness Creation Tour is to learn from different ideas. The purpose of the tour is not to promote a particular variety. Let's think about why businesses succeed with lower quality products than ours. Maybe it's about supplying crops in the off-season or growing different crops than the surrounding farmers." With the facilitation of the extension officer, the participating farmers' awareness was improved significantly, and they changed their opinions, saying that they should try to figure out how to harvest their own varieties in the off-season by changing when to plant, and how to irrigate, etc.



■ Participating farmers' comments:

- "We found out that the good farmers in Bethlehem have a lot of knowledge and experience in the cultivation of kernel fruits. I would like them to come to North Hebron to give us technical training as we could not get enough information from the tour."

(3) Extension Step 3: Market Opportunity Finding

(3-1) Extension Step3-1: Participatory Tour Planning Workshop for Market Opportunity Finding (February 2020)

This group farmers face the problem of lower market prices due to the concentration of shipping times. As a countermeasure, they are interested in introducing early and late ripening varieties to diversify the harvesting period. They are also interested in agro-processing such as grape molasses, dried grapes, and pickled grape leaves. Therefore, in order to understand the market needs for these products, wholesale markets that they did not have deals with, retail stores dealing with processed grape products, and urban fruit and vegetable stores were selected.





- Baita Wholesale Market (Nablus)
- Bas Baradi (retail store selling processed Palestinian products) (Ramallah)
- Nablus Market (urban fruit and vegetable market) (Ramallah)

(3-2) Extension Step3-2: Market Opportunity Finding (February 2020)

Participating farmers were able to understand the needs of the wholesale market, which they had never dealt with before, different trading methods, and the needs of retailers and consumers. They were also able to obtain contact information for new traders.

■ Marketed visited by the group:

- Nablus Wholesale Market (Nablus) *Changed because we could not coordinate with Baita wholesale market
- Bas Baradi (retail store selling processed Palestinian products) (Ramallah)
- Nablus Market (urban fruit and vegetable market) (Ramallah)

■ Participating farmers' comments



- Through this visit, I learned for the first time that the Halhoul grapes we grow are well known and can be sold at a higher price than the local wholesale market."
- "In the Hebron region, grapes are sold by the box because of the large amount of grapes produced, but in the Nablus region, grapes are sold by the kilogram and the market price is higher."
- In the Nablus region, grapes are sold by the kilogram and the market price is high. Therefore, shipping as a group will reduce the cost."
- We found out that if there is even one damaged grape in a box, the overall price will be lowered. We also learned that having the right quality and trusting the traders is important to increase and stabilize the shipping price."



- "I found out that shipping in old, used cardboard boxes sometimes lowers the price."
- Halhoul grapes are well known in retail stores and there is potential for direct sales."
- Molasses is often mixed with sugar, but it was found that consumers prefer it without."
- Through the EVAP-2 activities, I recognized the importance of going out and seeing."

(4) Extension Step4: Farming Improvement Planning with Extension Needs Identification (August 2020)



Twenty (20) farmers participated in the workshop, which started with a review of Extension Step 2 and 3. Through the previous Extension Steps, it was found that the farmers were concerned about 1) timing of herbicide application to reduce labour, 2) diversification of grape varieties and mixing with other fruit trees, 3) grape leaf production, 4) intercropping of other crops in the orchard, 5) farm records, 6) direct sales to retailers, and 7) differences in market prices between the northern and southern parts in the West Bank, about which the participating farmers shared their insights.

The workshop was facilitated by Mr. Ibrahim Arara and Mr. Iyad Zaaqiq from North Hebron DOA to elicit the technology needs of the group, keeping in mind the farmers' perceptions and interests. Discussions among the farmers focused on the difference in prices and high transportation costs between the Halhoul wholesale market (southern West Bank) where they usually ship their products and Nablus wholesale market (northern West Bank). Therefore, it was planned that Northern Hebron DOA and Nablus DOA would collaborate on marketing related activities, and technical training would be conducted on a wide scale, utilizing the connections between DOAs.



■ Target of activities selected by farmer groups (crops/livestock/products)

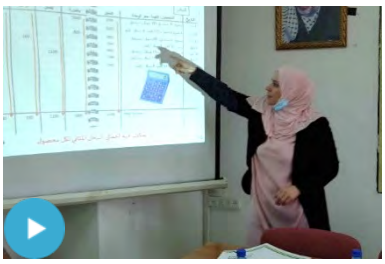
- 1) Existing varieties of grapes

■ Training modules selected by farmer groups

- 1) Grape berry quality improvement, 2) Pest and weed control and tree trimming, 3) Compost making, 4) Group purchasing and shipping, 5) Additional study tours

(5) Extension Step 5: Farm Record Keeping for Profitability Increase (September 2020)





The training was led by Ms. Shoq Bahar, Mr. Iyad Zaaqiq and Mr. Ibrahim Arar from North Hebron DOA, who lectured for farmers on how to record their farming activities. One of the participating farmers commented that he is aware of over applying pesticide, so he would like to keep record of his farming activities this season and next season to understand how much he is spending on it, so that he can reduce the cost in the future.

(6) Extension Step 6: Extension Activities for Farming Improvement

(6-1) Study tour to a grape Processor and an excellent grape farm in Hebron (September 2020)

The study tour was conducted based on the technical training plan formulated by the farmer group in Extension Step 4. Twenty-three (23) farmers (9 men and 14 women) participated in the tour. Most of the farmers are making processed products using grapes on a small scale at the household level. Masks were distributed to the participants, and they were encouraged to wear them at all times during the tour so as not to cause anxiety to the people involved in the tour.

■ A grape Processor (Dawalina Factory in Hebron):









The group members observed the production process of concentrated fruit juice (upper photo), raisins (middle photo), marban (Palestinian sweets made by boiling down grape juice, lower photo), and pickled grape leaves (left photo). The representative of the factory explained that the Palestine Standards Institution (PSI) has set quality standards for each processed product, and the processed products must meet those standards. He also informed the farmers that when the juice is boiled down to make concentrated fruit juice, if it is boiled for too long, toxic hydroxy-methylfurfural (an organic compound produced by the thermal decomposition of sugars and carbohydrates) is synthesized, causing the color to darken and the quality to deteriorate. In fact, it turned out that the market needs were quite the opposite of what the farmers had previously thought, as black in color was preferred in rural areas.

■ Visit to good practice grape farmer in Hebron

The group farmers received information on foliar application techniques of liquid fertilizer, appropriate types, and timing of pesticide application, pruning techniques, fruit packing using paper bags, pest control using nets, irrigation techniques, and timing of fruit harvest based on market needs. Farmers who participated in the tour requested that future training include a lecture by PSI on quality standards for processed grape products, training on group purchasing and shipping techniques and training on registration procedures for farmer groups.



(6-2) Discussion on expanding grape sales channels and group selling (October 2020)

Based on the technical training plan formulated by the farmer group in Extension Step 4, discussions were held regarding the expansion of grape marketing channels and group selling. By using the information obtained in the previous Extension Steps, the farmers discussed sales methods based on the needs of the customers and the importance of finding reliable traders.



One of the participating farmers commented, "We would like to expand our sales channels to Yatta and Al-Thaheryia areas in addition to Hebron wholesale market where we usually ship our products." He also commented that he would like to register the group with the Labor Bureau to facilitate group shipments of grapes.

(6-3) Lectures on quality standards for grape syrup (Dibis) (October 2020)

During the visit to the grape processors in September 2020, the farmer group learned that the Palestine Standards Institution (PSI) sets quality standards for each processed product. Therefore, North Hebron DOA requested Mr. Adeeb Qumari and Ms. Taghreed Mohammed from PSI to be the lecturers and organized a lecture on the safety and quality standards of PSI's grape syrup (Dibis) and raisins.



(6-4) Technical training on grape syrup (Dibis) processing (November 2020)

Based on the quality standards for grape syrup, North Hebron DOA conducted a training on processing techniques. Demonstration on how many hours of boiling would be required to produce grape syrup that would meet the PSI quality standards was conducted at the farmer's processing area. In the demonstration, four different processing methods with different boiling times and other conditions were tried to verify which method would meet the PSI standards. Mr. Haytham Abu Rayan of PSI also participated in the verification.





(6-5) Technical training on compost making (November 2020)




Based on the needs of farmer group, training on compost making technology was conducted. The application of compost, an organic fertilizer, to grape fields is expected to maintain and restore soil productivity and improve fruit quality. The lecture was given by Mr. Ibrahim Arar and Ms. Shoq Bahar of North Hebron DOA. After the lecture, compost making was demonstrated at the neighboring farmer's property. As in the Bethlehem training, the participating farmers commented, "This technique will be useful as it is a new technology that can be used for small fields and home gardens. As in the Bethlehem training, one of the participating farmers commented, "This technology will be useful as it is a new technology that can be used in small fields and home gardens.




(6-6) Technical training on heat treatment technology for quality improvement of grape syrup (Dibis) (February 2021)




A technical training on heat treatment technology was conducted to improve the quality of grape syrup (Dibis). Ms. Shoq and Mr. Ibrahim from North Hebron DOA as lecturers explained clearly to the farmers with using technical training materials prepared by EVAP-2. Mayor of Halhoul Municipality and Director General of North Hebron DOA also participated. Feedback was given to the farmers who cooperated in the experiment on the recommended heating time guidelines for grape syrup (Dibis) identified in EVAP-2. During the technical training, the lecturers explained about the recommended production process of grape syrup (Dibis) for quality improvement and the quality standards for grape syrup (Dibis) set by the Palestine Standards Institution (PSI). The lecturers gave particularly important advice that old processing equipment should be upgraded to new ones to improve quality.

(6-7) Technical training on grape disease and pest control (April 2021)




Based on the needs of farmer group, a technical training on grape disease and pest control techniques was conducted. The instructor was Mr. Odeh Sabarneh, Director of Horticulture, GDoERD, assisted by

Mr. Ibrahim Arar and Ms. Shoq Baha of North Hebron DOA. The main training topics were 1) leaf picking methods, 2) pruning of unwanted branches for disease and pest control, 3) use of natural enemy insects for disease and pest control, 4) importance of weed control, 5) disinfection of pruning tools, 6) control of grape borer (Phylloxera), 7) proper disposal of pruned branches and cut grass, 8) removal of old bark, and 9) moisture control by improving air circulation and sunlight by preventing overgrowth, 10) use of ripe compost and proper timing of fertilizer application, and 11) proper selection of pesticides. These are all training topics that focus on the challenges of local grape farmers.

(6-8) Technical training on grape quality and yield improvement (June 2021)

Based on the needs of the farmer group, a technical training on grape growth promotion techniques was conducted to meet the market needs. Mr. Odeh Sabarneh, Director of Horticulture, GDoERD was the instructor and Mr. Ibrahim Arar and Ms. Shoq Baha of North Hebron DOA assisted him. Mr. Majdi Amro, Director General of Agriculture, North Hebron also participated in the training. The main training topics were 1) proper planting spacing of grapes with and without irrigation, 2) pruning methods to promote growth, 3) supplementary irrigation techniques, 4) field tillage, 5) proper branching and pruning methods for different varieties, and 6) disease and pest control in accelerated cultivation.




(6-9) Network diagnosis of drip irrigation tubing (June 2021)

Extension officers from North Hebron DOA visited the grape fields of the target grape farmer group in Halhoul to conduct a network diagnosis of the drip irrigation tubes. The results showed that the drip irrigation system was functioning properly. However, the overall water supply was found to be unstable, with some cases of too much supply and some cases of too little supply. Therefore, it was suggested that a proper irrigation plan should be formulated and followed. This would improve grape quality, increase yields, and advance the harvest to avoid the peak shipping season which leads to higher shipping prices.




(6-10) Technical training on group purchasing of agricultural materials (July 2021)

Technical training on group purchasing of agricultural materials was conducted. The contents of the training were 1) advantages of group purchasing, 2) introduction of successful cases, and 3) implementation procedures (recruitment of participating members, identification of needs, obtaining quotations, selection of dealers, agreement on purchase, purchase, payment and distribution). The lecturers were




Ms. Shoq Bahar and Mr. Ayman Atawneh, extension officers from North Hebron DOA. After the training, the participating farmers worked with the extension officers to plan group purchase of cardboard boxes for shipping. The participating farmers also commented that they would like to stabilize the shipping price of grapes by joint shipment and reduce the cost of farm management by joint purchase, since it is difficult to stagger the shipping time of grapes. In Palestine, there have not been many joint activities by farmers in the past, but in general, in the case of fruit trees such as grapes, agricultural materials such as fertilizers and pesticides are common, and the items to be shipped are also common in many cases. Therefore, there is a high possibility that participation in EVAP-2 activities will lead to the stabilization of management through group purchasing and shipping.

(6-11) Matching with cardboard manufacturers (August 2021)





The group members used to reuse used cardboard boxes to ship the harvested grapes. The cardboard boxes were labeled such as tomatoes and cucumbers, which did not match the contents, and they were different designs and sizes. Through participating in EVAP-2 activities, the farmers realized that these boxes were one of the reasons for the poor appearance of the grapes and lower shipping prices. At the request of the farmer group, Mr. Ayman Attawneh and Ms. Shoq Bahar, extension officers from North Hebron DOA, arranged for sales representatives from several corrugated board manufacturers to visit the farmer group's village and make a match. The farmers received information on the types of corrugated containers, quality, size, price, and the design of corrugated containers preferred by the market, etc. Participating farmers commented "We will also use the knowledge we gained in EVAP-2 activities to make group procurement of corrugated containers of uniform design at low prices and meet market needs to increase and stabilize shipping prices. " It was confirmed that the extension officers of North Hebron DOA would continue to follow up on their activity.

(7) Extension Step 7：Implementation of Profitability Assessment (December 2021)





The workshop was facilitated by Mr. Ibrahim, Ms. Shoq, Ms. Haya, Ms. Anwar of North Hebron DOA with technical assistance by Mr. Odeh Sabarneh, Director of Horticulture, GDoERD. The farmers were asked to fill in the forms themselves for assessing agricultural profitability.

(4-5) Yatta Agriculture Innovative Farmer Extension Group (Yatta)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-5	Yatta Agriculture Innovative Farmers Extension Group	Hebron	Yatta	Not registered	Newly organized for EVAP-2	19	0	19	Sheep, Goat

(1) Extension Step 1：Willingness and Readiness Confirmation (October 2019)

(1-1) Extension Step 1-2：Willingness and Readiness Confirmation Workshop



- Status: Newly formed livestock farmers group for EVAP-2 extension activities
- Willingness to participate: All participants (members: 19 males) understood the concept of the project and agreed to participate in the activities. One male member was selected as the leader of the group.
- Problems recognized by the farmers at present: i) livestock diseases, ii) high mortality rate of new born sheep, iii) high cost of livestock feed and medicines, iv) lack of knowledge on feeding programs, v) water shortage and high cost of water, vi) low fertility and poor breeding techniques, vii) wool not utilized, viii) instability of sheep prices influenced by imported sheep, ix) time consuming veterinary laboratory tests.

(1-2) Extension Step 1-3: Discussion on Gender Awareness and Consideration

The following gender consideration measures were prepared for this group of farmers by the extension officers of the DOA in charge.

- Retired teachers and civil servants are the members of this group and they are involved in sheep rearing for commercial purposes. Involvement of women family members in sheep rearing activities appears to be limited, although some women farmers are involved in feeding, milking and processing dairy products.
- The status of women's involvement in sheep rearing activities and their needs will be checked, and training for women will be considered if necessary. However, the local community in Yatta is particularly conservative, making it difficult for female members to sit with male members. Consideration will need to be given to facilitation by female extension workers and separate activities for women.
- In this discussion, the following data on "who in household are engaged in agricultural activities?" were collected from farmers in Extension Step 1-2: Willingness and Readiness Confirmation Workshop.

Activities	Female (No.)	Both (No.)	Male (No.)	Total (No.)	Female (%)	Both (%)	Male (%)
Deciding cultivated crops	0	0	18	18	0.0%	0.0%	100.0%
Purchase of seeds/other inputs	4	7	8	19	21.1%	36.8%	42.1%
Sowing/ transplanting	15	1	3	19	78.9%	5.3%	15.8%
Pesticide application	16	3	0	19	84.2%	15.8%	0.0%
Irrigation	0	0	19	19	0.0%	0.0%	100.0%
Picking/ harvesting	0	2	16	18	0.0%	11.1%	88.9%
Marketing/ selling	0	0	18	18	0.0%	0.0%	100.0%
Income control	4	7	8	19	21.1%	36.8%	42.1%

(2) Extension Step 2: Awareness Creation Tour

(2-1) Extension Step 2-1: Participatory Tour Planning Workshop for Awareness Creation Tour (November 2019)

Many Bedouin farmers are engaged in coarse grazing on sloping land, and in recent years the decrease

in grazing land has become a major issue. In addition, miscarriage of parent sheep and disease infection of lambs in winter are also issues due to coarse grazing. Therefore, many farmers were interested in how to increase productivity per head and reduce mortality. For this reason, the following Good Practice Farmers were selected as the destinations for the tour.



- A farmer introducing improved breeds of highly productive sheep (Hebron)
- A farmer reducing feed costs by using appropriate feeding programs and mixed feeds (Hebron)
- A farmer using waste oil for heating to reduce lamb deaths and abortions in winter (Hebron)

(2-2) Extension Step 2-2：Awareness Creation Tour (December 2019)

■ Good practice farmers visited by the group



- A farmer introducing improved breeds of highly productive sheep (Hebron)
- A farmer reducing feed costs by using appropriate feeding programs and mixed feeds (Hebron)
- A farmer using waste oil for heating to reduce lamb deaths and abortions in winter (Hebron)

The basic knowledge of the livestock farmers who participated in the tour was very limited. Yatta, where the participating farmers practice farming, is a cool climate area, which causes the immediate death of baby sheep born in winter. After visiting a good practice farmer who had introduced a heating system for baby sheep and recognized its effectiveness, the farmer eagerly asked questions about the necessary equipment and its cost.

■ Participating farmers' comments:

- "Even if livestock feed is distributed, it will be used up soon. Knowledge and skills can be used for the next 100 years. I would like to participate in the tour and learn from the examples of good farmers."
- The health condition of the sheep of the good farmers was completely different from ours. I recognized the need to improve their breeding methods."
- "The level of technology is too different from that of the good farmers to be able to do the same, but what they are doing is very helpful. I would like to adopt the methods of the good farmers, even if it is only half."

(3) Extension Step 3: Market Opportunity Finding

(3-1) Extension Step 3-1: Participatory Tour Planning Workshop for Market Opportunity Finding (2020 February)

This group members are engaged in coarse livestock farming with grazing and simple barns, and are facing problems with livestock diseases and feeding, and high lamb mortality. As countermeasures to these problems, the following sites were selected for the study tour in order to purchase quality livestock medicine and feed at low cost.





- Brothers for Animals Feed Industry（Feed Company）（Hebron）
- Dana Company（Livestock medicine manufacturer）(Nablus）

(3-2) Extension Step 3-2: Market Opportunity Finding (February 2020)

Through the visits, the participating farmers were able to obtain information on new types of feeds, feeds for different breeding stages, ways to reduce feed costs, and information on livestock medicines to combat livestock diseases.



- Market visit destination:
  - Brothers for Animals Feed Industry（Feed Company）（Hebron）
  - Dana Company（Livestock medicine manufacturer）(Nablus）
- Comments of participating farmers:
  - "I learned about different types of feed that I didn't know before."
  - "I learned that overall costs can be reduced by using feeds that contain a variety of nutrients from the start, rather than purchasing a variety of feeds separately."
  - We learned a lot of information about livestock medicines to prevent diarrhea and death in livestock, which is our major issue."
  - "I immediately purchased a sucking machine at my own expense, imitating the Good Practice Farmer I visited in the previous step. I would like to continue to use the information obtained from the EVAP-2 activities to improve my farming."



(4) Extension Step 4: Farming Improvement Planning with Extension Needs Identification (June 2020)

Fifteen (15) farmers participated in the workshop, which started with a review of Extension Step 2 and 3. The five farmers have introduced new technologies, such as improved animal feed, new breeds, milking machines and milk replacer, which they learned from the previous Extension Steps, and some of them have already achieved results. As for the technologies they would like to acquire in future technical trainings, it was found that they were highly interested in improving productivity and reducing production costs. Since it was confirmed that women were responsible for some farming activities such as milking and barn cleaning, it was decided that a separate technical training for women farmers would be conducted by women extension officers.



- Target of activities selected by farmer groups (crops/livestock/products)
  - 1) Sheep (existing breed), 2) Quality improvement of Jameed (note: fermented and then dried yogurt product) (improvement of existing activity), 3) Sheep (new breed) (new activity)
- Training modules selected by the farmers group
  - (1) Breed improvement, (2) Livestock feed improvement, (3) Farm management, (4) Livestock disease and hygiene management, (5) Study tour to farmers using silage and business matching with sheep traders

(5) Extension Step 5: Farm Record Keeping for Profitability Increase (September 2020)

The training was led by Mr. Ayman Hathaleen and Mr. Loai Abu Eid of Yatta DOA, who taught the farmers how to record their farming activities. The training made use of





the record books and teaching materials prepared by the project for livestock farmers. The participating farmers recognized the importance of farm records and commented, "It is difficult to implement all the methods, so I would like to start with simple recording methods."

(6) Extension Step 6: Extension Activities for Farming Improvement

(6-1) Technical training on sheep feeding management (November 2020)



In the West Bank, pastureland is decreasing. Therefore, in order to maintain the number of sheep, livestock farmers need to switch to a feeding system that includes not only grass but also artificial feed. However, livestock farmers who have only used pasture so far lack knowledge about artificial feed. Thus, technical training on feeding techniques was conducted to meet the needs of the farmers. The training was conducted by Mr. Loai Abu Eid and Mr. Farthi Al-Bast of the Yatta DOA. The Lecturer gave explanation on appropriate feeding programs for different growth stages (feed composition, cost, and impact of feeding on productivity for each stage) by using technical materials prepared by EVAP-2. Several participating farmers commented, "I will definitely change from conventional feeding methods to the ones I learned today."

(6-2) Technical training on sheep disease control (the 1st session) (November 2020)



GDoERD and the Directorate General of Veterinary and Animal Health jointly conducted a technical training on sheep disease control, which included lectures on the causes, symptoms, and prevention and remedial measures of the disease. In the southern part of the West Bank, Bedouin pastoralists are engaged in coarse livestock farming, but their knowledge of diseases is limited, and there are few scientifically based measures to prevent diseases. At the training, a sheep perinatal disease search sheet and a fact sheet, which can be used to search for infectious diseases based on the symptoms of lambs, prepared by the project team were distributed, and their use was also explained. Dr. Ziad Sharawi from the Directorate General of Veterinary and Animal Health and Mr. Ayman Hathaleen, Mr. Loai Abu Eid, and Mr. Fathi Al-Bast, extension officers from the Yatta DOA, were the lecturers for the training. The farmer group asked for additional information on the disease, and it was decided to conduct the same technical training the following month.



(6-3) Technical training on sheep disease control (the 2nd session) (December 2020)

In response to a request from the farmer group, the second session of training on sheep disease control was conducted. The lecture covered the causes, symptoms, and preventive and remedial measures for diseases that were not fully explained in the previous session. The training was attended by Dr. Ziad Sharawi of the Directorate General of Veterinary and Animal Health, Mr. Ayman Hathaleen, Dr. Hamzeh,

Dr. Musa, Mr. Mahmoud, Mr. Loai Abu Eid of Yatta DOA, and other MOA officers. The farmer group requested additional training on the same subject for the members who could not attend, and the Yatta DOA will continue to follow up on the request.

(6-4) Technical training on safe and high-quality sheep milk production and dairy product processing (January 2021)




This technical training was conducted based on an idea from the farmer group who wanted to improve the process of sheep milk production and dairy processing, in which women play an important role in the value chain of sheep milk and dairy products. In the southern part of the West Bank, there are many relatively conservative farmers, and female farmers tend to have few opportunities to access external information. The technical training was targeted at women livestock farmers and was delivered by Ms. Qamar Al-Hawamdeh, a female extension officer in charge of livestock of Yatta DOA by using materials prepared by EVAP-2. The comments from the participating women farmers were as follows.




- "I learned about the hygienic standards of sheep milk, techniques to improve the quality of sheep milk and how to manage the milk after milking".
- "This is the first time I have received training on sheep milk production and dairy processing technology, so all the information was new to me.
- "Sheep milk and processed products are an important source of supplementary income for us livestock farmers, so I would like to use the knowledge I gained in the training to ensure stable sales.

(6-5) Technical training on sheep farm management (January 2021)




Based on the needs of the group, a technical training on sheep farm management was conducted. Dr. Ziad Sharawi from the Directorate General of Veterinary and Animal Health and Mr. Ayman Hathaleen, an extension officer from Yatta DOA, were the lecturers for the training, which was conducted using the technical training materials prepared by EVAP-2. The main topics covered were proper sheep management, disease prevention measures, and sheep health management.

(7) Extension Step 7 : Implementation of Profitability Assessment (December 2021)




The workshop was facilitated by

Mr. Ayman Hathaleen, Mr. Hamad, Mr. Mahmoud, Ms. Asma' of Yatta DOA. The farmers were asked to fill in the forms themselves for assessing agricultural profitability with assistance of facilitators.

(4-6) Al Hejri Farmer Extension Group (South Hebron)

No.	Group Name	District	Village	Registration Status	Group Type	Membership			Major Activity
						Male	Female	Total	
4-6	Al Hejri Farmer Extension Group	Hebron	Al Hejra	Not registered	Newly organized for EVAP-2	15	10	25	Vegetable production

(1) Extension Step 1：Willingness and Readiness Confirmation (October 2019)

(1-1) Extension Step 1-2：Willingness and Readiness Confirmation Workshop



- Status: Newly formed vegetable farmer groups for EVAP-2 extension activities
- Willingness to participate: All participants (15 males and 10 females) understood the concept of the project and agreed to participate in the activities. One male and one female leader were selected.
- Current problems recognized by farmers: i) weather, ii) high cost of agricultural inputs, iii) low market prices, iv) competition with other producers, v) impact of imported agricultural products with high price volatility, vi) soil diseases, vii) labor shortage, viii) water shortage (July-October), ix) need for land preparation, x) lack of reliable seed suppliers (low quality of seeds and seedlings)

(1-2) Extension Step 1-3: Discussion on Gender Awareness and Consideration

The following gender consideration measures were prepared for this group of farmers by the extension officers of the DOA in charge.

- Women are actively involved in agricultural activities. Customarily, pesticide spraying and sales are done by men, and women are mainly involved in sowing, planting, and harvesting.
- Access of women farmers to technical information and training has been limited so far. Culturally and customarily in the target area, the women in the group have no particular problem in sitting with men.
- In order to promote women's participation in EVAP-2 activities, meetings will be set up considering women's convenient time (9:30-12:00 on Thursdays). In order to promote communication among female members, a female leader has already been selected.
- For this discussion, the following data on “who in household are engaged in agricultural activities?” were collected from farmers in Extension Step 1-2: Willingness and Readiness Confirmation Workshop.

Activities	Female (No.)	Both (No.)	Male (No.)	Total (No.)	Female (%)	Both (%)	Male (%)
Deciding cultivated crops	0	2	19	21	0.0%	9.5%	90.5%
Purchase of seeds/other inputs	0	0	23	23	0.0%	0.0%	100.0%
Sowing/ transplanting	0	6	17	23	0.0%	26.1%	73.9%
Pesticide application	0	0	23	23	0.0%	0.0%	100.0%
Irrigation	0	3	20	23	0.0%	13.0%	87.0%
Picking/ harvesting	0	14	9	23	0.0%	60.9%	39.1%
Marketing/ selling	0	1	22	23	0.0%	4.3%	95.7%
Income control	1	2	20	23	4.3%	8.7%	87.0%

(2) Extension Step 2: Awareness Creation Tour

(2-1) Extension Step 2-1: Participatory Tour Planning Workshop for Awareness Creation Tour (November 2019)



The farmers recognized the high risk of price fluctuation and low yield due to growing only two crops of tomato and cucumber, as their problems. Therefore, they were very much interested in crop diversification and productivity improvement, and the following good practice farmers were selected as the destinations for the tour.

- A farmer introducing grafted seedlings to increase yield and stabilize production of tomatoes and cucumbers (Bethlehem)
- A farmer diversifying their crops by introducing vegetables with high market value (Jericho)
- A farmer keeping farm records to increase profits (Jericho)

(2-2) Extension Step 2-2：Awareness Creation Tour (December 2019)

■ Good practice farmers visited by the group:



- A farmer introducing grafted seedlings to increase yield and stabilize production of tomatoes and cucumbers (Bethlehem)
- A farmer diversifying their crops by introducing vegetables with high market value (Jericho)
- A farmer keeping farm records to increase profits (Jericho)

The challenge for the participating farmers in South Hebron is soil-borne diseases. Most of the participants showed a positive reaction about the introduction of grafted seedlings as they learned that the good farmer was overcoming soil-borne diseases by introducing grafted seedlings. The good practice farmer also produces and sell grafted seedlings, and it was decided to provide a small number of seedlings free of charge to the group of farmers for experimental cultivation, which was supported by the extension officer of South Hebron DOA.

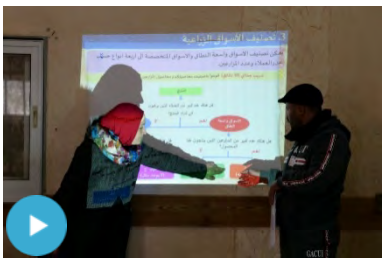
■ Comments of participating farmers:

- "I could understand the importance of farm records. Some male farmers seem to think that bookkeeping is not necessary, but how can we understand and improve the situation without records? We should start bookkeeping too. Please distribute the record book immediately." (Female farmer)
- "I realized that grafting reduces the amount of pesticides applied and the cost of inputs."

(3) Extension Step 3: Market Opportunity Finding

(3-1) Extension Step 3-1: Participatory Tour Planning Workshop for Market Opportunity Finding (February 2020)

The group farmers mainly grow tomatoes, cucumbers, etc. Due to the availability of well water, low water costs, and climatic conditions, there are not many other competing production areas in the Hebron area, they do not face any major marketing challenges, and farmers are not much interested in market





information. However, they wanted to get information on wholesale markets other than Hebron, which they have never done business with, and the following sites were selected for the tour.

- Bethlehem wholesale market (Bethlehem district)
- Baita wholesale market (Nablus district

It should be noted that this group stubbornly refused to allow women to participate in this step because marketing is not a role for women as is customary in this region. This is presumably because they do not see much of a challenge in marketing and therefore have little awareness of changing their current roles. However, it is necessary to consider special measures in the future to reduce the information gap between men and women, which is one of the gender-sensitive policies of the Project.

(3-2) Extension Step 3-2: Market Opportunity Finding (2020 February)





The farmers were able to visit several wholesale markets and compare them with the Hebron wholesale market that they usually deal with. As a result, they realized once again the strength of their crops and the fact that they can get a better price if they continue to ship to the larger Hebron wholesale market. They also understood that what they need to do is to stabilize their production and further increase the trading price at the Hebron wholesale market.

■ Markets visited by the farmer group:

- Bethlehem wholesale market (Bethlehem district)
- Baita wholesale market (Nablus district)

■ Comments of participating farmers:

- "I found that the prices at the Bethlehem wholesale market were not that different from the Hebron wholesale market, where we usually do business, but the Bethlehem market is smaller and not as attractive because we can't ship all the vegetables we produce."
- "At the Baita wholesale market in the Nablus area, we are competing with Tammon vegetables from near Nablus in terms of timing and variety. It would be better to continue shipping to the Hebron wholesale market as before."
- "It is better to produce tomatoes, cucumbers, spinach, radishes, and cabbage as before. However, I found out that the price of cucumbers tends to drop from May to July due to too many shipments. Therefore, we should try to grow other crops during that period. However, it is better to grow crops that do not require much labor."
- "I found that packing, grading, and sorting affect the price."
- "I could sort out about 20 percent of the better-quality vegetables and sell them directly to retailers."
- "I found out that shipping in old, used corrugated cardboard sometimes lowers the price. We also found out that buying new corrugated can cover the cost."

(4) Extension Step4: Farming Improvement Planning with Extension Needs Identification (September 2020)

The Extension Step 4, which had been postponed due to COVID-19, was conducted. Ms. Manar, Mr. Wael and Mr. Fadel from South Hebron DOA facilitated the workshop. At the beginning of the workshop, a review of the previous Extension Step 2 and 3 was conducted to catch up with the participants who were not able to participate in those activities.

■ Training topics selected by the farmer group

- Tomato (improvement of existing farming), 2) Cucumber (improvement of existing farming), 3) Grafted tomato and cucumber (new crops)

■ Training modules selected by the farmer group

- 1) Pest and disease control for vegetables, 2) Appropriate use of chemical pesticides, fertilizer application for vegetables, and appropriate irrigation technology for tomatoes, 3) Study tour (destination to be decided later by the DOA and the farmer group), 4) Hanging cultivation technology for snack cucumbers and squash, 5) Introduction of new vegetables (type to be decided later by the DOA and the farmer group)





(5) Extension Step5: Farm Record Keeping for Profitability Increase (September 2020)

Mr. Wael Amro, Ms. Manar Manasra and Mr. Fadel Mahariq from South Hebron DOA served as instructors and trained the participants on how to keep their farm records. One of the participating farmers commented, "Through visits to wholesale markets, I found out that the production cost of tomatoes in Al Hejri is higher than other areas, so I would like to keep farm records to see how I can reduce it." Another commented, "I will start growing leafy vegetables soon, so I would like to keep records from the beginning of cultivation to find points to be improved."



(6) Extension Step6: Extension Activities for Farming Improvement

(6-1) Technical training on compost making (November 2020)

The group farmers mainly produce vegetables, but often cultivates certain vegetables repeatedly, resulting in low soil fertility, for which they need to apply organic fertilizers to maintain and restore land productivity. Based on their needs, a technical training on compost making technology was conducted. In the West Bank, there are many lands with low soil fertility due to low rainfall and poor vegetation. Therefore, it is important to effectively reuse limited resources such as crop residues and livestock manure to increase productivity.







The lecture was given by Mr. Wael Amro and Ms. Manar Manasra of South Hebron DOA by using the teaching material prepared by EVAP-2. The lecture was followed by a demonstration of compost making at a nearby farmer's property. Locally available crop residues and livestock manure were used as materials for the compost. One of the participating women farmers commented, "This training topic is new to us and it is interesting and will be useful as it is a new technology that can be used in small fields and home gardens."

(6-2) Technical training on pest and disease control of vegetables (January 2021)



Based on the needs of a group of farmers, a technical training about pest and disease control for vegetables was conducted. The group farmers grow vegetables such as cucumbers and tomatoes in open fields and plastic greenhouses, but they are facing the problem of low and unstable yields due to frequent outbreaks of pests and diseases. In addition, farmers were not able to accurately identify the type of diseases from the symptoms of their crops, which caused a high cost of agricultural chemicals. On the other hand, this region has the advantage of being able to use spring water for irrigation all year round, and the key to improving agricultural management is how to utilize this advantage to increase agricultural income. Farmers and extension officers are implementing activities to improve their farming practices based on these points. The training was conducted by Mr. Fadel Mahariq and Ms. Manar Manasreh of South Hebron DOA, who gave lectures using the teaching materials prepared by EVAP-2. Comments from the participating farmers were as follows.



- "We have never received any training on pest and disease control before, so this was extremely useful information. We will be able to reduce labor and costs in our farming and improve crop yields."
- "During the EVAP-2 activities, we visited wholesale markets to get information and found out that there are few vegetable producing areas in the Hebron region that can compete with us. Therefore, there is no need to change the shipping time, while our challenge is how to improve the yield and reduce the production cost. This training addresses the issue, and with the new knowledge, we will be able to improve yields and reduce pesticide costs."

(6-3) Technical training on the use of grafted seedlings for vegetables (February 2021)

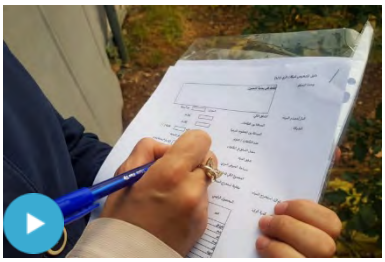




Based on needs of the group, technical training on the use of grafted seedlings for vegetables was conducted. Mr. Fadel Al-Mahareeq, Mr. Ziad Abu Rahmeh and Ms. Manar Manasreh from DOA South Hebron were lecturers for the training and used the technical training materials prepared by EVAP-2. Comments from the participating farmers were as follows.

- "Grafted seedlings are a new technology in our area, and I would like to try grafted seedlings of cucumber and tomato in the next season, which is scheduled to start in April."
- "I would like to see how effective the grafted seedlings are in a field with severe soil diseases."

(6-4) Network diagnosis of drip irrigation tubing (July 2021)



Extension officers from South Hebron DOA visited the grape fields of farmers of Hejri Farmer Extension Group to diagnose the drip irrigation tubing network and found that the irrigation volume was too high compared to the recommended volume. The Al Hejiri area is rich in water resources compared to other areas due to the presence of



springs. Thus, it seemed that farmers in this area were not interested in improving the efficiency of irrigation. However, by using the limited irrigation water more efficiently, it is possible to increase the cropping area and introduce new crops that require large amounts of water. The extension officers provided appropriate advice based on this perspective as well.

(6-5) Technical training on proper application of liquid fertilizer in drip irrigation (July 2021)



In Palestine, many farmers grow vegetables using drip irrigation. Therefore, the most common method of applying fertilizer is to pour liquid fertilizer into the drip irrigation tubes along with the irrigation water. Because of the simplicity of this method, it was found that many farmers were applying too much fertilizer. Therefore, technical training was conducted to explain the proper timing and amount of liquid fertilizer to be applied for each crop. Ms. May Nazzal, Mr. Ziad Abu Rahmeh and Ms. Manar Manasra of South Hebron DOA served as instructors. Interviews with farmers during the training revealed that they were not measuring fertilizer at all, were not aware of the fertilizer application standards for each crop, and were applying a lax amount at random times. Some of the farmers were applying more than twice the standard amount of fertilizer, putting pressure on their farming business.





(7) Extension Step 7：Implementation of Profitability Assessment (December 2021)

The workshop was facilitated by Mr. Ziad, Ms. Manar, Ms. May, Ms. Seema, Ms. Fatima of South Hebron DOA. The farmers were asked to fill in the forms themselves for assessing agricultural profitability with assistance of facilitators.





Chapter 5 Introduction of New Technologies to improve Farming Practice

"Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)" (hereinafter referred to as EVAP-2) are divided into the three contract periods. Project activities in each period are described as follows:
- 1st Contract Period (July 2016 - March 2018): Project Progress Report (1st Period)
- 2nd Contract Period (April 2018 - July 2019): Project Progress Report (2nd Period)
- 3rd Contract Period (July 2019 - January 2022): Project Completion Report (this Report)

This report contains the project activities conducted in the 3rd Contract Period (July 2019 - January 2022).

As described in Chapter 3, technology development ("Green Box") in EVAP extension package includes two steps: (1) selection/identification of appropriate technologies and 2) verification of technologies. The concept of technology development ("Green Box") is as described in Section 3-3, Chapter 3. The related activities are as follows.

5-1 Crop production technology

(1) Demonstration of cultivation technology of indigenous watermelon varieties by grafting in disease-contaminated soil

The EVAP-2 has piloted the cultivation of watermelon by grafted seedlings in disease-contaminated soil by using the plots of farmers of Maithalon and Sanor Farmer Extension Group (cereal farmers' group, Jenin district) and Qabatiya Farmer Extension Group (vegetable farmers' group, Jenin district). As a result, it was demonstrated that the grafted seedlings grew healthily without soil diseases and watermelon could be shipped at 3 to 5 NIS/kg, which is higher than that of ordinary watermelon (2 NIS/kg).



Watermelon free of soil-borne Nematoda and vine cracking diseases (Jenin)

The EVAP team organized a workshop to share the results with other farmer members. The workshop was also attended by a seed dealer who was transferred the technology of grafted seedling production by EVAP-1. The workshop was facilitated by an extension officer of South Jenin DOA, and the farmers actively exchanged opinions and shared information on the varieties of watermelon that sell at higher prices, the price of grafted seedlings, the timing of ordering grafted seedlings from the supplier, and the number of days required to grow seedlings. Most of the participating farmers expressed their intention to introduce grafted watermelons with their own funds in the next season.





(2) Trial production of grafted seedlings of tomato and cucumber in farm contaminated with soil-borne diseases

1) Starting the growth of grafted seedlings with soil pest resistance in demonstration cultivation

In the northern part of the West Bank, the grafted vegetable seedling technology introduced in EVAP



Phase 1 is gradually spreading and is being used for vegetable production in soil contaminated by soil diseases and pests. Most of the water sources in Palestine are wells and springs, and the agricultural land available for irrigation is limited around them. Farmers have to plant repeatedly on the land, and the crop rotation cycle is short, resulting in serious problems with soil pests and diseases. Especially in the high altitude areas of Hebron district, solar soil disinfection using plastic sheets is not feasible. The grafted seedling technology is a technique to produce seedlings that are both resistant and profitable by grafting a variety with high market needs onto an impoted soil pest resistant rootstock as a scion.





Based on the technical training plan developed by Al-Hijri Farmers Extension Group and Sa'eer Farmers Extension Group in Hebron, equal numbers of grafted cucumber and tomato seedlings were distributed to several farmers who were willing to cooperate in the demonstration. The grafted seedlings were purchased from a seed supplier in Bethlehem who had received technology transfer under EVAP-1 and has since continued and expanded its grafting business.

The cooperating farmers were asked to compare their seedlings with normal seedlings in terms of soil pests and diseases, and extension officers from the South and North Hebron DOAs are supposed to continue to provide technical support. Since this is the first time this technology has been used in the southern West Bank, only a few farmers were willing to cooperate, but other farmers wanted to observe the actual growth situation in their villages with their own eyes.

2) Checking the growth of grafted seedlings with soil pest resistance in demonstration cultivation



In May 2021, Ms. Manar, Mr. Ziad, and Mr. Fadel, extension officers from the South Hebron DOA, visited the field of Mr. Majed Masharqa (Hebron district) who is cooperating with us in the demonstration cultivation of watermelon and cucumber. The results showed that the seedlings were not infected with any diseases even about two months after planting, and the stems were thicker, the leaves darker, and the fruit set was better than normal seedlings. The team asked the farmer to continue observations and to record the yield per seedling at harvest time.

3) TV station's coverage of the promotion of watermelon cultivation using grafted seedling technology

In the northern part of the West Bank, the grafted vegetable seedling technology introduced in EVAP Phase 1 is gradually spreading, and the area under watermelon cultivation is increasing.

In Jenin, Tubas, and Jericho, watermelon production used to be very active, but due to the spread of soil-borne vine cracking disease and centipedes, production had almost ceased. In recent years, however, grafted seedlings have become readily available to farmers due to the establishment of grafting systems at seed dealers. Mr. Hashim, Director General of the North Al-Aghwar DOA, was interviewed by a Palestinian TV station and explained about JICA's cooperation to date and the characteristics of the grafted seedlings.



4) Checking the growth of grafted seedlings with soil pest and disease resistance in demonstration cultivation

Ms. Ruba, Ms. Haya, Ms. Majdoleen, and Ms. Faten, extension officers of South Hebron DOA, visited the field of Mr. Mohammed Shalaldeh (Hebron district) who is cooperating with us in the demonstration cultivation of cucumber. The field is chronically infested with soil-borne diseases, but due to the high altitude and low temperature of Hebron, thermal disinfection using vinyl sheets is not possible, so the farmers have been unable to take effective measures.





It was reported that the seedlings had thicker stems, darker leaves, and better fruit set compared to conventional seedlings. It was also confirmed that the planting rate was better than that of conventional varieties. The farmers were asked to continue their observations and to record the yield per seedling at harvest time.

(3) Technology transfer to extension officers for network diagnosis technology of drip irrigation tubing （TOT）

The current status and main issues related to agricultural water use in the West Bank are as follows.



- According to data of MOA, there are 287 agricultural wells in the West Bank (as of 2017), but the location of the wells is unevenly distributed (mainly in the West, North, and Jordan Valley).
- The unit cost of water varies greatly from region to region depending on the location of the well and the volume of water.
- Water use costs account for a large proportion of agricultural production costs.
- Some farmers are irrigating more than the crop water requirement.
- Leakage due to broken drip irrigation tubes is often unnoticed by farmers.
- The salinity of the groundwater is high, and the drip irrigation pumps are prone to malfunctioning



and clogging of the tubing emitters due to their adhesion.

- It is said that there are few wells with sufficient water supply due to the lowering of the groundwater level and other factors.
- Sediment has accumulated in the wells and many of them need to be dredged, but most of them are left as they are.





In order to mitigate these issues, EVAP-2 is conducting a network diagnosis of drip irrigation tubing, which is common in Palestine, to evaluate its efficiency and introduce technology to optimize the amount of irrigation according to the water requirements of each crop.

In the southern part of the West Bank on the Jordanian side of the 4th Cycle, agricultural wells and springs are scattered throughout the area, and agriculture is carried out using them. In order to transfer technology to the target farmer groups, the Al Aroub Agricultural Experiment Station in Hebron was rented to conduct a Technology Transfer to Extension Officers (TOT) for drip irrigation tubing network diagnostic technology. Mr. Mohammed Talahmeh, General Directorate of Agricultural Water and Irrigation and Mr. Abedul Qader Kharaz, Director of Vegetable Department GDoERD were the instructors for the training and the technology transfer was conducted for the extension officers of DOAs in the south. The training also included field practice of drip irrigation network diagnosis using simple instruments.

5-2 Livestock management technology

(1) Fact sheet and identification sheet of infectious perinatal disease of sheep

1) Infectious perinatal diseases of lambs that occur frequently in Palestine in winter

In Palestine, perinatal diseases tend to occur frequently in winter season and abortion and mortality are serious problems because breed season of sheep starts from the beginning of autumn and deliver in cold winter season. Loss of new born sheep is one of the most serious problems in Palestine economy. In some cases, farmers lost a hundred of sheep in a season. Therefore, the project team developed the identification sheet of the eleven common infectious perinatal diseases. It includes cause, infection route, symptom, characteristics.



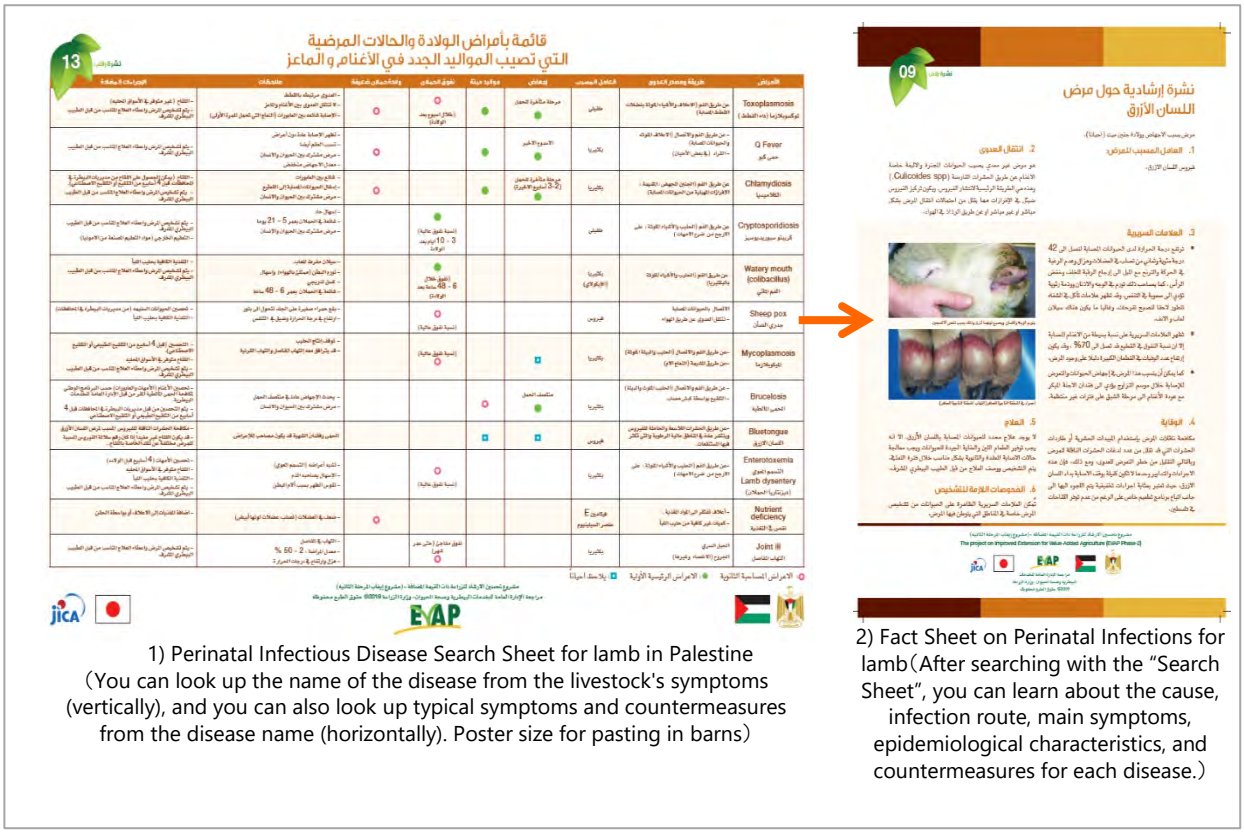
Lambs dead from the infectious disease in Jerusalem

2) Development of fact sheet and identification sheet of infectious perinatal disease of sheep

The identification sheet contains major eleven common sheep diseases in Palestine. In addition, the project team also prepared fact sheets of those diseases as well as joint ill individually to help farmers to identify lamb diseases quickly. As a result of the field survey mentioned above, the project team prepared of Fact Sheet and Identification Sheet of infectious disease of sheep, namely, 1)Toxoplasma, 2)Q fever, 3)Chlamydiosis, 4)Cryptosporidiosis, 5)Watery mouth, 6)Sheep pox, 7)Mycoplasmosis, 8)Brucelosis, 9) Bluetongue, 10)Lamb dysentery, as well as 11)Joint-ill.

3) How to use the infectious disease search sheet and fact sheet to make it easier for farmers to search

In the case of a perinatal abortion or neonatal death of a sheep, the farmer can first look for an infectious disease with similar symptoms on the “Perinatal Infectious Disease Search Sheet” and confirm the details on the “Fact Sheet.”



1) Perinatal Infectious Disease Search Sheet for lamb in Palestine
（You can look up the name of the disease from the livestock's symptoms (vertically), and you can also look up typical symptoms and countermeasures from the disease name (horizontally). Poster size for pasting in barns）

2) Fact Sheet on Perinatal Infections for lamb（After searching with the “Search Sheet”, you can learn about the cause, infection route, main symptoms, epidemiological characteristics, and countermeasures for each disease.）

Figure 5-1 How to use the infectious disease search sheet and fact sheet

(2) Trials of sheep insemination services that can be continued by the Palestinian authority

1) Implementation policy of sustainable artificial insemination service

In the southern part of the West Bank,, the amount of pastureland has decreased significantly, and the number of livestock is also decreasing. In order to raise livestock on limited pastureland and maintain profits, it is important to: 1) avoid reducing the number of animals due to diseases, 2) shift to and promote feeding methods that include not only grasses but also mixed feeds, and 3) increase the productivity of meat and milk per animal.



Commercially available materials for artificial insemination of sheep (at a price that farmers can afford to pay themselves)

Therefore, the project aims to establish a public artificial insemination service by the authority in order to increase the productivity of sheep through breed renewal. In establishing the service, it is important to note that: 1) the farmers should bear part of the cost, 2) the cost should be affordable by the farmers, 3) the service should be sustainable with only Palestinian staff, and 4) the service should be targeted at farmers living in remote areas who have difficulty accessing private veterinarians who can perform artificial insemination. In addition, the technique of artificial insemination has been adapted among

officials due to JICA's support in the past. Therefore, the EVAP team conducted a trial of the artificial insemination service for sheep. If it goes well, we plan to encourage the authority to continue the service as a regular activity from the next year.

In the implementation of this trial, extension officers of GDoER D, who are aware of the issues faced by farmers, and staff from General Directorate of Veterinary Services & Animal Health, who have skills in artificial insemination, and other departments, worked together, taking advantage of each other's strengths. In total, twenty-seven officers participated in this activity: four from GDoERD, one from General Directorate of Veterinary Services & Animal Health, six from the Bethlehem DOA five from Yatta DOA, one from NARC, four from the Beit Qad Livestock Experiment Station, and six from the Palestinian Center for Livestock Improvement.



Palestinian officials who participated in the activities from multiple organizations
(Extension activities in Palestine require cross-organizational collaboration.

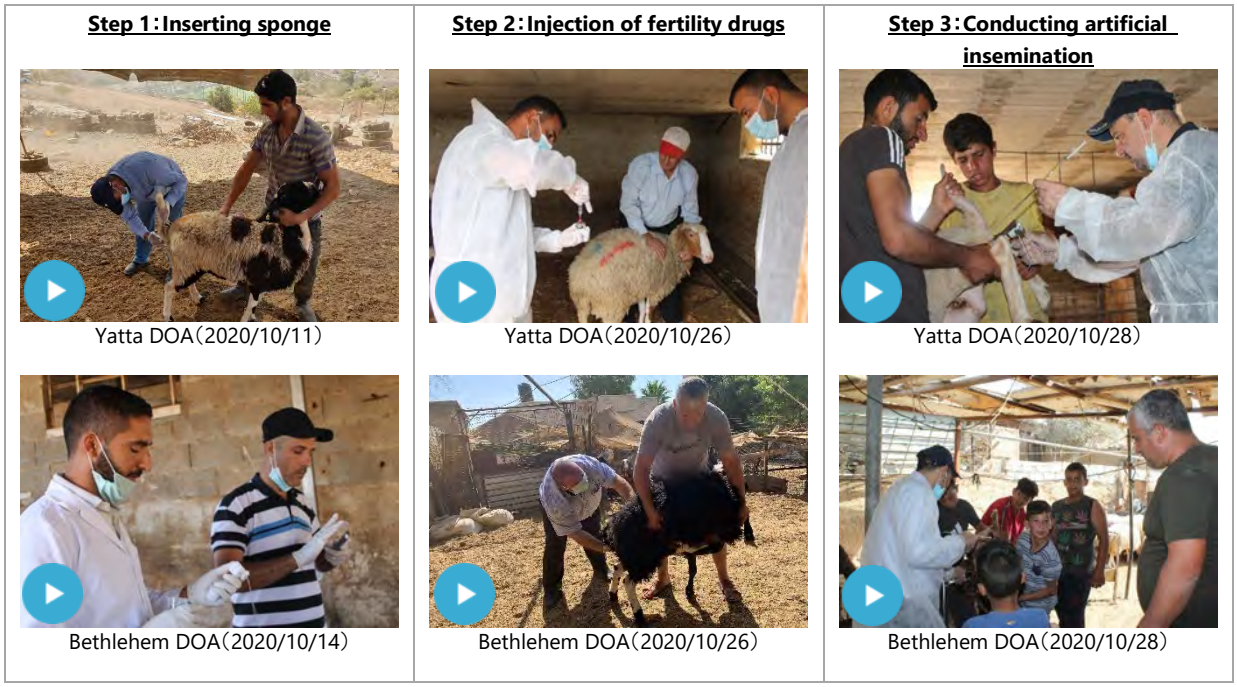


Figure 5-2 Procedure for artificial insemination of sheep by Palestinian officials

2) Training and survey on pregnancy diagnosis by artificial insemination in sheep

In collaboration with Yatta DOA, Bethlehem DOA and Palestinian Center for Breeds Improvement, a training and survey on pregnancy diagnostic techniques was conducted to check the status of pregnancies resulting from artificial insemination of sheep conducted in EVAP-2. During the training, the extension officers, who learned how to use the ultrasonic pregnancy diagnostic machine, checked the pregnancy status of the sheep. By using this machine, the presence or absence of pregnancy can be visually identified at an early stage.



The use of the ultrasound pregnancy diagnosis machine allowed us to see the

actual condition of the lambs in the womb, which surprised the livestock farmers who saw it for the first time, and was effective in motivating farmers to use artificial insemination and early pregnancy diagnosis. One farmer who cooperated with us commented: I have seen an improvement in the pregnancy rate with artificial insemination, and I would like to continue to receive artificial insemination services from DOA or private veterinarians in the next year.






EVAP team also confirmed that the ability of the extension officers to check the pregnancy status of the sheep using the ultrasound pregnancy diagnosis machine was expected to contribute to building trust and improving communication with the farmers.

3) Training for extension officers on the use of ultrasound diagnostic devices for pregnancy diagnosis (TOT)

Technology transfer related to the use of ultrasonic pregnancy diagnostic machine was conducted for the extension officers in charge of livestock production in DOAs of the fourth cycle. A number of officials from GDoERD, General Directorate of Veterinary Services & Animal Health, Bethlehem DOA, Yatta DOA, Beit Qad Livestock Experiment Station, Palestinian Center for Livestock Improvement, and others participated in the training. A technician from FAO's Job Creation Project also participated in the training as an observer.



4) Survey of lambs born through artificial insemination and confirmation of farmers' willingness and ability to pay their own expenses to ensure sustainability

GDoERD and Yatta DOA conducted a growth survey of lambs born through artificial insemination conducted in November 2020. The feedback from all the farmers who cooperated with us was that so far, the growth of the lambs was better than that of the indigenous breeds. The farmers were also willing to continue receiving artificial insemination services in order to obtain genetically superior lambs with excellent meat quality, high milk yield, and body shape that would fetch a high price in the market. Although no quantitative comparisons with the native breeds were made, it is assumed that most of the lambs produced by crossbreeding with genetically superior rams have better traits than the native breeds. The low reproduction rate of sheep in Palestine is one of the challenges, but artificial insemination is attractive




to farmers because of its high rate of twin births and efficient breeding. It was confirmed that all nine cooperating farmers in the Yatta area were willing to pay the full cost of the consumables required for the insemination, and that by having the farmers pay for the consumables for the second and subsequent times, a model for sustainable artificial insemination services by MOA could be established, which is expected to be continued after the project ends.

5) Training for extension officers on artificial insemination techniques for sheep （TOT）




In order to implement the artificial insemination service requested by the farmers in Yatta, technology transfer of sheep artificial insemination technology was provided to Mr. Loai and Mr. Ayman of Yatta DOA and Mr. Mohammed, Mr. Ayman and Mr. Yousif of Bethlehem DOA. The lecturers were Mr. Wael, Mr. Baher and Mr. Mustafa from the Livestock Research Institute of NARC (National Agricultural Research Center) in Nablus. The lecturers had been dispatched to Indonesia for training in livestock artificial insemination technology as part of JICA's CEAPAD (Conference on East Asia Cooperation for the Advancement of Palestinian Development) program, and one of the objectives of this activity was to effectively utilize the technology acquired through JICA's technical assistance.




6) Implementing sustainable sheep insemination services based on farmers' needs




Yatta DOA (Mr. Ayman, Dr. Ziad, and Mr. Loai) and Bethlehem DOA (Mr. Mohammed and Mr. Ayman) utilized the techniques learned in TOT to provide artificial insemination services for sheep requested by farmers.



The southern part of the West Bank is an area where livestock farming is flourishing, and rough grazing is practiced. However, in recent years, the amount of available pasture has been decreasing. There is an urgent need to improve the breeding rate. Therefore, DOAs need to disseminate sustainable and farmer-led artificial insemination services with farmers' self-financing. It was also verified that semen from Beit Qad livestock station (Jenin district) in the north, where semen from rams with good genetic traits can be collected, can be transported to Hebron and Bethlehem districts in the south without any problem by u sing the main road after collection in the morning.

Chapter 6 Project Management, Monitoring and Evaluation

6-1 Issues, arrangements and lessons learned regarding project management

(1) Project implementation structure

The project implementation structure is shown in the figure below. The project is managed through three committees of the Monitoring Task Force, the Extension Task Force, and the Technical Task Force in collaboration with the EVAP-2 project team (Japanese and national experts, and administrative staff). This implementation structure with clarifying roles and responsibilities of concerned parties enabled clarifying objectives of the respective committees and efficiently implementing project activities.

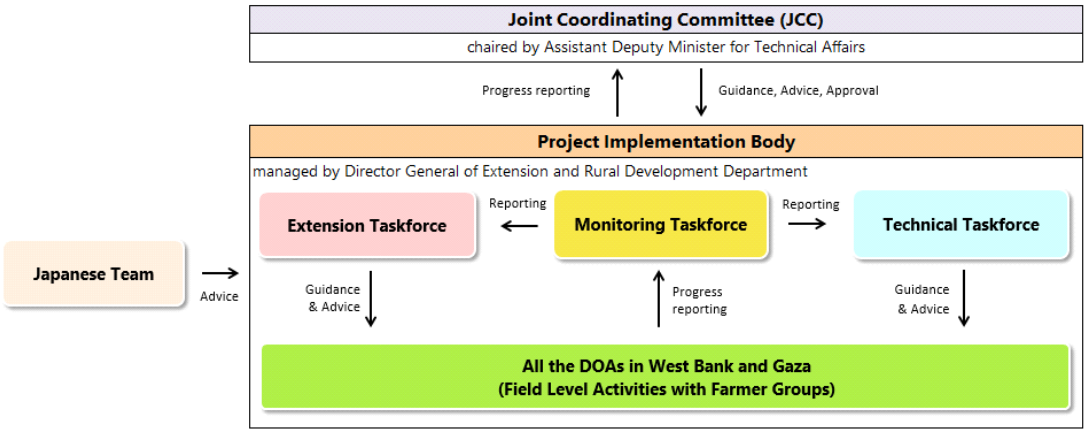


Figure 6-1 Project Implementation Structure

(2) Monitoring system

As a part of the project implementation structure, Monitoring Taskforce consisting of Palestinian C/Ps and the JICA experts was established. The Monitoring Taskforce checks progress in inputs and activities as well as achievement of outputs of the project in accordance with PDM and compiled as a monitoring sheet, which is submitted to JICA Palestine office every six months. At the Taskforce meetings, attentions were paid to properly understand the needs from Palestinian side and to reflect to the project in timely manner, which enhanced ownership of the Palestinian C/Ps toward the project.

(3) Relations to Palestinian C/Ps

For ensuring the sustainability based on capability and supports of the Palestinian side (MOA/DOAs), it took the policy that “Project would not provide financial support but support for improving structure and functions of the Palestinian side. If it is judged that the Palestinian side could implement activities by themselves, the Project would not give further supports for facilitating their independence.” The Project team also set the policy of not providing any financial supports for the extension activities by MOA/DOAs themselves with own budget of the Palestinian government and agreed at the beginning stage of the Project with Palestinian side that these extension activities would be based on annual extension plans of the Palestinian government (MOA), thus should be carried out under responsibilities of the Palestinian government (MOA). Therefore, the Palestinian side (MOA) was requested to report

the progress of these extension activities by themselves to JICA and the Project team (including JICA experts) at the JCC meetings for encouraging their initiatives.

(4) Arrangement for ensuring sustainability and related activities

Since it was judged that the Palestinian side could surely implement EVAP Extension Package activities by themselves considering their technical and financial capabilities, the Project team gave more focus on improving the system for implementing these extension activities for facilitating ownership of the Palestinian side. The Project was able to give financial supports but did not do taking into consideration that these extension activities should be implemented within the Palestine government. Following measures were taken for ensuring sustainability for implementing EVAP Extension Package activities. Their details are described in Chapter 3 of the Project Progress Report (the 2nd contract period) and in Chapter of this report.

Actions (supports) for Palestinian government (MOA) for institutionalizing EVAP Extension Package:

- Action for securing government budget for EVAP Extension Package activities.
- Confirming securement of government budget for EVAP Extension Package activities.
- Incorporation of EVAP Extension Package into MOA annual extension plan.
- Examination of applicability of EVAP Extension Package by agricultural sub-sector.
- Explanation of implementation procedures for DOAs.
- Preparation of to-do-list for DOAs to continue EVAP Extension Package activities.
- Actions for incorporation of EVAP Extension Package into DOA annual extension plans.
- Support for procuring necessary stationaries with Palestinian government's own budget and distributing them to DOAs.
- Confirming incorporation of EVAP Extension Package into annual extension plans and monitoring on progress of the extension activities based on EVAP Extension Package by MOA/DOAs themselves.

Supports for smooth budget request and disbursement for implementing EVAP Extension Package:

- Preparation of "manual on budget requests, procurement and disbursement" for EVAP Extension Package activities with Palestinian government's own budget.
- Explanatory meeting (1st time) on "manual on budget requests, procurement and disbursement".
- Explanatory meeting (2nd time) on "manual on budget requests, procurement and disbursement".
- Support for disbursement procedure for EVAP Extension Package activities with Palestinian government's own budget.
- Application of "petty cash advance system (Petty Cash)" for simplifying disbursement procedure and explanatory meetings on use of "Petty Cash" to DOAs.
- Monitoring on use of "Petty Cash" for EVAP Extension Package activities.

6-2 Achievements of the project activities and outputs

(1) Changes of PDM/PO and their backgrounds

Monitoring taskforce meeting was basically held every six months by taskforce members consisting of Palestinian C/Ps and the JICA experts. Monitoring Sheet was confirmed and approved at the meeting and submitted to JICA Palestine office. Monitoring Sheets is composed of Form 3-1 (Word), Form 3-2

(Excel, actual activities based on PDM) and Form 3-3 (Excel, plans and actual of PO). Since some of Monitoring Sheets were prepared without revision of PDM/PO, versions of Monitoring Sheet and PDM/PO are not matched. Changes of PDM/PO are shown in the table below.

Table 6-1 Changes in PDM/PO

Monitoring Sheet	Date of submission	Covering period	Version of PDM/PO	Major changes in PDM/PO
Ver. 1	2016/9/20	Start of the Project	Ver. 1	Project period and Japanese experts were confirmed at the start of the Project. They were added to Ver. 0.
Ver. 2	2017/2/28	2016/8～2017/1	Ver. 1	No revision.
Ver. 3	2017/8/7	2017/1～2017/7	Ver. 2	Based on approval at the 3rd JCC (27 July 2017). Target figures for indicators for the Project Purpose (by 8.0%/2 years) and Output 1.1 (All) were added.
Ver. 4	2018/2/19	2017/7～2018/1	Ver. 2	No revision.
Ver. 5	2018/7/25	2018/1～2018/6	Ver. 3	Since additional Japanese experts were assigned and some of their positions were changed after the 2nd contract period of the Project (May 2018~), corresponding parts of PDM and PO were revised.
Ver. 6	2019/3/20	2018/7～2019/2	Ver. 3	No revision.
Ver. 7	2019/10/2	2019/3～2019/8	Ver. 4	Project period was revised for the 3rd contract period of the Project (September 2019~). Since timings of JCC, submission of Monitoring Sheet was changed and schedule of 2nd training in JICA was decided, corresponding parts of PDM and PO were revised.
Ver. 8	2020/9/13	2019/9～2020/2	Ver. 4	No revision.
Ver. 9	2021/3/30	2019//～2021/2	Ver. 5	Extension of the Project period due to effects of COVID-19 was agreed between JICA and the Palestinian government (December 2021). Schedule of assignments of Japanese experts, training in Japan, some activities, JCC, submission of Monitoring Sheet, dispatch of JICA mission, etc. were revised.
Ver. 10	2021/10/13	2021/3～2021/8	Ver. 6	In accordance with the recommendation by the terminal evaluation survey, indicators for overall goal, Output 3-2 and 3-3, and summary of Activity 1.3 were revised.

Target figure for the indicator for the Project Purpose, that is “increase in net income from agriculture of the target farmers” was not set at the initial PDM. In reference to figures in “National Agricultural Sector Strategy (June 2017)” and other concerned data, target figure was examined and set as follows.

Procedure for setting target figure for the Project Purpose

- Percentage increase in Agricultural Production Value (2014 -- > 2022): 10% (8 years, constant price) -- > annual average increase: 1.20%
- Annual average increase of WPI (wholesale price index) of agriculture sector (2008 -- > 2016, 2007 is base year): 2.69%
- Data on profitability increase of target crops under EVAP-2 for **2 years** (1st year for trial and 2nd year for actual practice) will be calculate.
- Target of increase in net income: $1 \times (1+0.012)^2 \times (1+0.0269)^2 = 1.0799$ (about 108%) -- > about **8.0%** (nominal price) increase

(2) Achievement of the outputs of the project

Project purpose and outputs of the EVAP-2 as well as indicators to verify their achievements are set in the PDM as per the following table. Latest versions of PDM and PO (Ver. 6) revised in response to the recommendation by the terminal evaluation survey were as per Attachment 6-1. Achievements of the

outputs based on indicators in PDM are described below.

Table 6-1 Project purpose/outputs and their verifiable indicators

Narrative Summary		Verifiable Indicators
Project Purpose	In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen based on the Improved EVAP Extension Package.	The net income*1 from agriculture*2 have increased among the targeted small and medium sized farmers by 8.0% at the time of Project completion*3. *1: Current (nominal) prices will be applied. *2: It will specify agriculture activities related to target crops under EVAP-2. *3: Data on profitability increase of target crops under EVAP-2 for 2 years will be calculated by the target farmers based on their farm records (not at the time of Project completion).
Output 1	The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DOA) is strengthened.	1.1. All targeted MOA and DOA personnel*1 demonstrate good understanding of EVAP Extension Package, including its principles and objectives. *1: Those nominated as Project counterparts. 1.2. All DOA annual plans reflect the EVAP Extension Package.
Output 2	The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	2.1. The Provisional EVAP Extension Package incorporate measures to ensure that its extension services reach out to small and medium sized farmers. 2.2. The improved EVAP Extension Package is finalized and approved by JCC.
Output 3	Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. All DOAs implement their annual plan without direct support of the Project. 3.2. More than 70% of the farmers who participated in "Step 2-2: Awareness Creation Tour" in activity 3.6 participate in following training sessions of Step 3 to 7. (Before the terminal evaluation) Appropriate levels (to be determined) of participation of small and medium sized farmers is observed. 3.3. On average, more than 70% of farmers responded that the problems referred in Step 7 have been "improved" or are "expected to be improved". (Before the terminal evaluation) Significant number/proportion (to be determined) of small and medium sized farmers adopt the suggested techniques/know-hows.
Output 4	The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. Farming manuals that cover the comprehensive steps from planting to marketing for each relevant agricultural product, based on the needs of the small and medium sized farmers, have been developed. 4.2. The farming manuals receive positive feedback from the extensionists and farmers.

1) Output 1：The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DOA) is strengthened.

(a) Understanding of the EVAP Extension Package by C/P officers of GDoERD

Seriese of meetings and guidance explaining concepts and procedures of the EVAP Extension Package were conducted for Extension Taskforce members mainly consisting of C/P officers of GDoERD. They also participated in TOTs (trainings of trainers)/pre-training guidance for DOAs and

workshops/technical trainings for target farmer groups and often gave practical comments. JICA experts mainly conducted sessions of TOTs/pre-training guidance for the 1st and 2nd Cycles. Method of "technology transfer from the extension officers who had experiences of extension activities based on EVAP Extension Package to other extension officers" were applied for the 3rd and 4th Cycles. Some of the taskforce members played as facilitators/lectures in TOTs/pre-training guidance for DOAs (e.g. TOTs on "gender awareness and consideration" by officers of Rural Development Department) and in the technical trainings for the target farmer groups. Details of these cases are described in Chapter 3. Thus, it could be thought that understanding of C/Ps of GDoERD have been enhance enough level through participating in these activities.

(b) Understanding of the EVAP Extension Package by C/P officers of DOAs

TOTs on "EVAP Extension Package" and "gender consideration", and pre-training guidance before respective Steps of EVAP Extension Package were conducted for extensionists of target DOAs. For the 1st and 2nd Cycles, JICA experts mainly conducted these sessions with participation of the Taskforce members. On the other hand, at the pre-training guidance sessions for the 3rd Cycle, DOA extensionists of the 1st Cycle explained implementation procedures of the Steps with their experiences. Those sessions for the 4th Cycle were facilitated by the DOA extensionists of the 2nd Cycle. Based on these sessions, DOA extensionists took initiatives to prepare and facilitate the workshops, tours, technical trainings, etc. for target farmer groups. In addition, the 1st – 4th Cycles DOA themselves have implemented the 2nd round activities of EVAP Extension Package based on "EVAP web guideline" prepared by EVAP-2 Team with using the government own budget. Thus, it could be judged that understanding of DOA extensionists on EVAP Extension Package and their capacities of implementing the Package have been enhanced to enough level through these variety of activities.

(c) Reflection of the EVAP Extension Package to annual plans of DOAs

GDoERD has regarded EVAP Extension Package as the important extension tool and facilitated its application to annual extension plans of DOAs. Annual budgets of DOAs are requested to GD of Finance (MOA) in May to June in previous year. EVAP-2 Team incorporated additional columns for budget for EVAP Extension Package activities into the budget request template. EVAP Extension Package activities were included in annual extension plans of 6 DOAs for FY 2018, 9 DOAs for FY 2019 and 15 DOAs for FY 2020 and 16 DOAs for FY 2021. Budgets which could be exclusively used for EVAP Extension activities were secured for FY 2018 and FY 2019, and the activities were conducted by DOAs themselves. Although budgets for FY 2020 and FY 2021 were committed, their actual disbursements were not done due to budget shortage issue of MOA, and EVAP Extension Package activities by DOAs themselves were interrupted. However, their activities were re-started in July 2021 with using minibuses provided by JICA Palestine office to MOA. Please see Chapter 3 for further details.

(d) TOTs for C/P and other officers of MOA/DOAs

TOTs conducted for C/P and other officers of MOA/DOAs are shown in Attachment 6-2 and Attachment 6-3.

2) Output 2: The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.

Survey on reviewing results and issues of EVAP-1 was conducted in October 2016 and the approach for improving EVAP Extension Package was discussed at the Extension Taskforce meetings. The approach of facilitating gender mainstreaming, refining technologies to be demonstrated, verifying appropriate technologies for enhancing farmers' applicability, implementation of endline survey for measuring the effects of EVAP Extension Package, strengthening linkages among respective activities of extension activities, strengthening linkage between the Extension Steps of the Package (blue line) and technology development (green box) was examined for improving the Package. Taking these points into consideration, the 1st revised Package was prepared and approved at the 2nd JCC meeting held on 4 January 2017. Based on the 1st Cycle activities, C/Ps of GDoERD and JICA experts discussed and prepared the revised Package (Ver. 2), which was approved at the 3rd JCC (27 July 2017) and applied for the 2nd, 3rd and 4th Cycle activities without further modification. Since following points were also considered for the Package, it could be said that the revised Package was applicable agricultural extension method for benefitting various type of farmers in the whole area of Palestine. Please see Chapter 3 for further details.

- Facilitation of "niche" by differentiating crops.
- Strengthening of linkage from information to farmers' needs to technical trainings.
- Classification of farmers and efficient understanding of farmers' needs.
- Consideration of diversity of farmers.
- Application for vegetables, livestock and fruit tree.

3) Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts.

(a) Implementation of the EVAP Extension Package by DOA

As described in Chapter 2, extension activities for selected agricultural sub-sectors based on EVAP Extension Package were conducted by 1st – 4th Cycles DOAs with direct supports from the Project. Then, EVAP Extension Package were reflected into annual extension plans of target DOAs, and its extension activities were implemented by DOAs themselves with Palestinian government's own budget for FY 2018 and 2019. Please see Chapter 3 for further details.

(b) Participation of farmers in extension service activities based on the EVAP Extension Package

Extension activities based on the EVAP Extension Package were conducted by the Project together with the 1 – 4 Cycle DOAs. Numbers of participants by Cycle are shown in the table below. Total number of beneficiaries (who participated in the activities at least one time) is 1,455 persons, that of participants is 4,683 persons, that of sessions is 313 times, and average number of participants per session is 15.0 persons, which could be regarded as reasonable considering that 10 ~ 20 members per group are assumed as targets. Regarding composition of participants by gender, male farmers account for 70.8% while female ones for 29.2%. Comparing the male-to-female ratio of farmers in Jordan Valley (78.5% for male, 21.5% for female) according to the results of "Inventory Survey on Farmers' Groups in the Jordan Valley Region" conducted in EVAP-1, participation of female farmers in the EVAP-2 activities is relatively

high.

Table 6-3 Number of participants and beneficiaries for EVAP-2 activities

Cycle (Year)	Type of Farmer Groups			Total Number of Participants (Person-Session)			Total Beneficiaries			Number of Sessions	Average Participants per Session
	Mixed Group	Male Group	Female Group	Male	Female	Total	Male	Female	Total		
1st Cycle Farmer Group (2017-2018)	2	2	2	478	446	924	165	118	283	71	13.0
	33.3%	33.3%	33.3%	51.7%	48.3%	100.0%	58.3%	41.7%	100.0%	-	-
2nd Cycle Farmer Group (2018-2019)	1	4	1	839	325	1,164	306	85	391	77	15.1
	16.7%	66.7%	16.7%	72.1%	27.9%	100.0%	78.3%	21.7%	100.0%	-	-
3rd Cycle Farmer Group (2019-2020)	3	2	1	794	284	1,078	267	91	358	75	14.4
	50.0%	33.3%	16.7%	73.7%	26.3%	100.0%	74.6%	25.4%	100.0%	-	-
4th Cycle Farmer Group (2020-2021)	6	0	0	991	526	1517	292	131	423	90	16.9
	100.0%	0.0%	0.0%	65.3%	34.7%	100.0%	69.0%	31.0%	100.0%	-	-
Total	12	8	4	3,102	1,581	4,683	1,030	425	1,455	313	15.0
	50.0%	33.3%	16.7%	66.2%	33.8%	100.0%	70.8%	29.2%	100.0%	-	-

Note: Beneficiaries are those participated in activities at least one time.

Numbers of participants by Extension Step are shown in the tables below. Larger numbers participated in tours and markets visits, and certain level numbers constantly participated in other sessions. Details of activities and their participants numbers are shown in Attachment 6-4.

Table 6-4 (1) Number of participants (1st Cycle)

Step	Male	Female	Total
Step 2: Planning workshop	34	26	60
Step 2: Awareness Creation Tour	51	51	102
Step 3: Planning workshop	47	50	97
Step 3: Market visit	49	39	88
Step 4: Family Resource and Gender Analysis	41	35	76
Step 5: Action Planning and Baseline Assessment	37	43	80
Farm Record Keeping	24	28	52
Business matching & tour	22	43	65
Step 6: Extension Activities	148	97	245
Step 7: Profitability Assessment	25	34	59
Total number of participants	478	446	924
Total number of beneficiaries (at least one time participation)	165	118	283
Total number of sessions			70
Average number of participants per session			13.2

Note: As of the end of June 2021. Total number of 6 groups.
Since Step 1 for the 1st Cycle was done for registering target farmers, participant's number of this Step 1 is excluded.
"Total number of sessions" means numbers for male group and for female group.

Table 6-4 (2) Number of participants (2nd Cycle)

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	62	18	80
Step 2: Planning workshop	66	12	78
Step 2: Awareness Creation Tour	96	35	131
Step 3: Planning workshop	71	25	96
Step 3: Market visits	105	30	135
Step 4: Farming Improvement Planning	74	27	101
Step 5: Farm Record Keeping	59	26	85
Step 6: Extension Activities	266	133	399
Step 7: Profitability Assessment	40	19	59
Total number of participants	839	325	1,164

Step	Male	Female	Total
Total number of beneficiaries (at least one-time participation)	290	85	375
Total number of sessions			77
Average number of participants per session			15.1

Note: As of the end of June 2021. Total number of 6 groups.

Table 6-4 (3) Number of participants (3rd Cycle)

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	78	22	100
Step 2: Planning workshop	63	28	91
Step 2: Awareness Creation Tour	91	32	123
Step 3: Planning workshop	69	29	98
Step 3: Market visits	87	52	139
Step 4: Farming Improvement Planning	50	22	72
Step 5: Farm Record Keeping	43	21	64
Step 6: Extension Activities	277	65	342
Step 7: Profitability Assessment	36	13	49
Total number of participants	794	284	1,078
Total number of beneficiaries (at least one-time participation)	267	91	358
Total number of sessions			75
Average number of participants per session			14.4

Note: As of the end of June 2021. Total number of 6 groups.

Table 6-4 (4) Number of participants (4th Cycle)

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	110	35	145
Step 2: Planning workshop	81	37	118
Step 2: Awareness Creation Tour	94	46	140
Step 3: Planning workshop	93	28	121
Step 3: Market visits	87	27	114
Step 4: Farming Improvement Planning	71	29	100
Step 5: Farm Record Keeping	61	33	94
Step 6: Extension Activities	340	253	593
Step 7: Profitability Assessment	54	38	92
Total number of participants	991	526	1,517
Total number of beneficiaries (at least one-time participation)	292	131	423
Total number of sessions			90
Average number of participants per session			16.9

Note: As of the end of January 2022. Total number of 6 groups.

Based on the new indicator 3.2 revised and approved in 10th JCC (7 Oct. 2021), following figures are calculated. According to these figures, it could be interpreted that 68.7% of the farmers who participated in tours of Step 2 continued to participate in the following sessions, which nearly achieve target figure of 70%.

Table 6-5 Number of participants for Step 2-2 and for Step 3 ~ Step 7

Cycle	Average No. of participants per group for Tour of Step 2 (A)	Average No. of participants per session (Step 3 – Step 7) (B)	(B) / (A)
1st Cycle	17.00	12.92	75.97%
2nd Cycle	21.83	14.83	67.93%
3rd Cycle	20.50	13.40	65.38%
4th Cycle	23.33	15.48	66.36%
1st – 4th Cycle	20.67	14.20	68.73%

(c) Adoption of suggested techniques and know-hows by farmers

Information on cases that farmers have applied knowledge, techniques and know-hows obtained from activities of the Package (good practice farmers visited by "awareness creation tours", market visits, technical trainings, etc.) were collected from target farmers and DOA extensionists.

Situation on adoption of information and techniques were checked in the Step 7 (Profitability Assessment). As for the 1st Cycle (conducted in Feb. & Mar. 2019), the ratios of farmers who have applied information and techniques from EVAP Extension Package activities for their farming activities exceed 70% in all Steps. As for the 2nd Cycle (conducted in Jan. 2020) and the 3rd Cycle (conducted in Mar. & Apr. 2021), around 85% (2nd Cycle) and 93% (3rd Cycle) of participants answered that they have applied techniques and information obtained from EVAP activities (study tours, planning sessions, lectures for technical training, technical training manuals/materials, etc.) for their actual farming. Thus, high percentage of target farmers applied techniques and information provided by EVAP activities for their farming. Cases of application of information/techniques for their farming and the results are described in Chapter 4.

In response to the recommendation by the terminal evaluation survey, indicator of Output 3.3 was revised to "On average, more than 70% of farmers responded that the problems referred in Step 7 have been "improved" or are "expected to be improved." For plant cultivation farmer groups (5 groups) of the 1st Cycle, more than 70% of farmers responded 12 out of 16 problems have been improved. For its livestock farmer group (1 group), more than 70% of farmers responded 7 out of 14 problems have been improved. For plant cultivation farmer groups of the 2nd and 3rd Cycles (8 groups), more than 70% of farmers responded 15 out of 16 problems have been improved or are expected to be improved. For their livestock farmer groups (3 groups), more than 70% of livestock farmers responded 11 out of 14 problems have been improved or are expected to be improved.

4) The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.

(a) Development of comprehensive farming manuals

At the Step 4 (Farming Improvement Planning), target crops were selected and necessary technical trainings for Step 6 were discussed based on target farmers' needs. In consideration of these needs, EVAP-2 Team in collaboration with GDoERD and DOA C/Ps have prepared 53 various materials for technical trainings which could be cultivation and farming manuals covering comprehensive steps or some steps depending on target crops. In addition, inventory of existing 104 technical manuals hold by MOA was prepared to be efficiently used for extension activities. The list of technical training materials is as Attachment 3-6. For specific issues which might have high demands from farmers in the fields of plant cultivation and livestock, technical manuals for concerned extension officers were prepared and technology transfer were done. In addition, cases of good practice farmers were collected and compiled as introduction sheets (84 cases in West Bank and 7 cases in Gaza Strip).

(b) Feedback from extensionists and farmers on farming manuals

Technical manuals were prepared with fully incorporating opinions of concerned DOA extensionists and

officers of technical departments of MOA through Extension/Technical Taskforce meetings and pre-training guidance, etc. Some manuals were prepared with initiatives of DOA extensionists and/or technical staff of MOA. Although information on their evaluation on these technical manuals was not collected by the Project, it was confirmed by interview of the terminal evaluation survey that DOA extensionists basically appreciated these manuals (see the evaluation report).

On the other hand, according to the results of evaluation at Extension Step 7 by target farmers of the 1st cycle, nearly all farmers showed their satisfactions on Step 5 (Farm Record Keeping) and Step 6 (Extension Services and Technical Trainings) of EVAP activities which used technical manuals (58 out of 59 respondents for Step 5, 54 out of 55 respondents for Step 6) (see the Session 6-4 (8) below in this Chapter). Thus, it could be thought that farmers positively evaluate technical manuals prepared under EVAP activities.

On the other hand, according to the results of evaluation at Step 7 by target farmers of the 1st Cycle, nearly all farmers showed their satisfactions on Step 5 (Farm Record Keeping) and Step 6 (Extension Services and Technical Trainings). As for the 2nd and 3rd Cycle, nearly all showed their ratifications (49.5% (50) of participants for “very satisfied” and the same for “satisfied”) on technical training manuals/materials provided by EVAP. Thus, it could be thought that farmers positively evaluate technical manuals prepared under EVAP activities.

(3) Achievement of the Project Purpose

Increase in net profits from agriculture of the target farmers as the Project Purpose. At the workshops of the Extension Step 7 (Profitability Assessment), change in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP (present status, with EVAP) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP activities (baseline status, without EVAP). The results of the Extension Step 7 (Profitability Assessment) of the 1st cycle farmer groups are shown in Chapter 6 of the Progress Report (The 2nd contract period), and the results of the 2nd to 4th cycle farmer groups are shown in Attachment 6-5.

(a) Changes in agricultural profits of sample target farmers in total and by Cycle

Net agricultural profits with EVAP have been increased for 2 years by 64.7 % for all sample farmers, which exceeds target figure of 8.0% increase of the Project Purpose. Those figures of increase for 1st Cycle, 2nd Cycle, 3rd Cycle, and 4th Cycle are +46.1%, +60.9%, +44.7% and +51.7%. respectively,

Table 6-6 (1) Changes in agricultural net profits of sample farmers by Cycle

Cycle (Year)	Total Net Profit (NIS/year/Group)		Number of Sample Households (HH)	Total Net Profit (NIS/year/HH)		% in 2 years (Present/ Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
1st Cycle Farmer Group (2017-2018)	763,233	1,115,419	59	12,936	18,905	146.1%
2nd Cycle Farmer Group (2018-2019)	1,137,440	1,830,175	56	20,311	32,682	160.9%
3rd Cycle Farmer Group (2019-2020)	492,924	713,277	48	10,269	14,860	144.7%
4th Cycle Farmer Group (2020-2021)	2,301,705	3,492,600	83	27,731	42,080	151.7%
Total	4,695,302	7,151,471	246	19,087	29,071	152.3%

Agricultural net profits are deference between agricultural sales and costs. In order to understand factors for

changes in agricultural net profits, changes in agricultural sales and costs for 2 years were calculated. Total agricultural sales for all sample farmers have been increased by +29.5% for 2 years. Total agricultural costs for them have been increased by +6.6% for 2 years. It is desirable to increase agricultural sales and decrease its costs for maximizing agricultural net profits, however, there are upward trends in agricultural costs for all sample farmers. These changes in agricultural sales and costs are shown in the tables below.

Table 6-6 (2) Changes in agricultural sales of sample farmers by Cycle

Cycle (Year)	Total Sales (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
1st Cycle Farmer Group (2017-2018)	1,963,360	2,025,105	59	33,277	34,324	103.1%
2nd Cycle Farmer Group (2018-2019)	1,904,960	2,861,475	56	34,017	51,098	150.2%
3rd Cycle Farmer Group (2019-2020)	1,244,087	1,484,230	48	25,918	30,921	119.3%
4th Cycle Farmer Group (2020-2021)	4,653,555	6,276,775	83	56,067	75,624	134.9%
Total	9,765,962	12,647,585	246	39,699	51,413	129.5%

Table 6-6 (3) Changes in agricultural costs of sample farmers by Cycle

Cycle (Year)	Total Cost (NIS/year/Group)		Number of Sample Households (HH)	Average Production Cost (NIS/year/HH)		% of Total Production Cost in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
1st Cycle Farmer Group (2017-2018)	928,292	624,540	59	15,734	10,585	67.3%
2nd Cycle Farmer Group (2018-2019)	873,270	1,035,050	56	15,594	18,483	118.5%
3rd Cycle Farmer Group (2019-2020)	752,163	784,453	48	15,670	16,343	104.3%
4th Cycle Farmer Group (2020-2021)	2,351,850	2,784,175	83	28,336	33,544	118.4%
Total	4,905,575	5,228,218	246	19,941	21,253	106.6%

As an indicator for analyzing farm management, ratio of agricultural net profits (sales - costs) to agricultural sales (%) was calculated. This ratio is 49.8% without EVAP and that is 58.7% with EVAP, which have been increased by 8.9% points, meaning that farm management of sample farmers have been improved. This ratio could be one of important indicators for evaluating the results of market-oriented agriculture.

Table 6-6 (4) Changes in ratio of agricultural net profits to agricultural sales by Cycle

Cycle (Year)	Ratio (%) of Agricultural Net Profits (Sales - Costs)/ Agricultural Sales		
	(Baseline)	(Present)	Difference (Percentage Point)
1st Cycle Farmer Group (2017-2018)	52.7%	69.2%	+16.4%
2nd Cycle Farmer Group (2018-2019)	54.2%	63.8%	+9.7%
3rd Cycle Farmer Group (2019-2020)	39.5%	47.1%	+7.6%
4th Cycle Farmer Group (2020-2021)	49.5%	55.6%	+6.2%
Total	49.8%	58.7%	+8.9%

(b) Changes by type of group (male, female and mix)

Farmers groups are often organized by gender (male, female and mix gender groups) due to religious and social customs in Palestine. Extension activities have been conducted in consideration of the needs of different type of groups. Indicators related to the Project Purpose were calculated by type of group. Net agricultural profits with EVAP have been increased for 2 years for mix groups by +53.3%, for male groups by +47.7%, and for female groups by +94.2%. Although change rate of female groups is highest, their average agricultural net profit amounts account for only around 12% of those of male farmer groups.

Table 6-7 (1) Changes in agricultural net profits of sample farmers by type of group

Type of Farmer Group	Total Net Profit (NIS/year/Group)		Number of Sample Households (HH)	Total Net Profit (NIS/year/HH)		% in 2 years (Present/ Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
Mixed Group	2,627,467	4,027,712	117	22,457	34,425	153.3%
Male Group	1,919,257	2,835,259	70	27,418	40,504	147.7%
Female Group	148,578	288,500	59	2,518	4,890	194.2%
Total	4,695,302	7,151,471	246	19,087	29,071	152.3%

Changes in agricultural sales and costs with EVAP for 2 years were also calculated by type of group. Change rates of agricultural sales are 133.1% for mix groups, 122.1% for male groups, and 143.8% for female groups, and female groups' rate is the highest. Those of agricultural costs are 134.1% for mix groups, 92.8% for male groups, and 93.8% for female groups, and decrease rate of male groups is the highest. It could be thought that EVAP activities contributed female groups to increase agricultural sales and to decrease its costs (though actual money amounts are less), accordingly, to reach highest increase rate of agricultural profits.

Table 6-7 (2) Changes in agricultural sales of sample farmers by type of group

Type of Farmer Group	Total Sales (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
Mixed Group	5,448,636	7,253,985	117	46,570	62,000	133.1%
Male Group	3,978,115	4,855,745	70	56,830	69,368	122.1%
Female Group	339,210	487,855	59	5,749	8,269	143.8%
Total	9,765,962	12,597,585	246	39,699	51,210	129.0%

Table 6-7 (3) Changes in agricultural costs of sample farmers by type of group

Type of Farmer Group	Total Cost (NIS/year/Group)		Number of Sample Households (HH)	Average Cost (NIS/year/HH)		% of Total Cost in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
Mixed Group	2,822,669	3,294,023	117	24,125	28,154	134.1%
Male Group	1,936,508	1,796,876	70	27,664	25,670	92.8%
Female Group	146,397	137,319	59	2,481	2,327	93.8%
Total	4,905,575	5,228,218	246	19,941	21,253	106.6%

Ratios of agricultural net profits to agricultural sales (%) were improved from 56.8% (baseline) to 71.9% (present) by +15.0% points for female groups, which is higher than +6.7% points for mix groups and +11.7% points for male groups. Thus, it could be thought that EVAP activities contributed female groups to improve their farm management and practice market-oriented agriculture.

Table 6-7 (4) Changes in ratio of agricultural net profits to agricultural sales by type of group

Type of Farmer Group	Ratio (%) of Agricultural Net Profits (Sales - Costs)/ Agricultural Sales		
	(Baseline)	(Present)	Difference (Percentage Point)
Mixed Group	48.2%	54.9%	+6.7%
Male Group	51.3%	63.0%	+11.7%
Female Group	56.8%	71.9%	+15.0%
Total	49.8%	58.7%	+8.9%

Details on agricultural net profits, sales and costs by farmer group (by Cycle, type of group) are shown in Attachment 6-6 and Attachment 6-7.

There are certain constraints for using these data from the results of the Step 7. Firstly, the number of sample farmers for the 1st – 4th Cycles is 246 which accounts for 16.9% of total 1,455 beneficiaries of the EVAP activities. Since crop situations are generally changed year by year, it is not very appropriate to compare and compile data of different cropping periods. Participation in the Step 7 (Profitability Assessment) highly depended on decisions by target farmers, which may have biased sample farmers. These points should be kept in mind for using these data.

Ratio of farmers with increase in agricultural net profits is 84.0% meaning that not all farmers achieved increase in the profits while these net profits were decreased for 7.0% of farmers. Ratios of the farmers with net profit increase are 71.2% for the 1st Cycle, 91.1% for the 2nd Cycle, 91.7% for the 3rd Cycle, and 83.8% for the 4th Cycle.

Table 6-8 Number and ratio of farmers with changes of agricultural net profits

Cycle	Number of Sample Households (HH)	Farmers whose net profits increased		Farmers whose net profits did not change		Farmers whose net profits decreased	
		Number	(%)	Number	(%)	Number	(%)
1st Cycle Farmer Group (2017-2018)	59	42	71.2%	15	25.4%	2	3.4%
2nd Cycle Farmer Group (2018-2019)	56	51	91.1%	5	8.9%	0	0.0%
3rd Cycle Farmer Group (2019-2020)	48	44	91.7%	1	2.1%	3	6.3%
4th Cycle Farmer Group (2020-2021)	83	65	78.3%	5	6.0%	13	15.7%
合計	246	202	82.1%	26	10.6%	18	7.3%

(c) Changes in agricultural profits of sample target farmers of EVAP Extension Package activities with Palestinian government own budget (the 2nd round activities)

Changes in agricultural profits of sample target farmers of EVAP Extension Package activities conducted by DOAs themselves (the 2nd round activities) are also checked. Workshops on Step 7 (Profitability Assessment) were conducted for only 2 target farmer groups by January 2022. Changes in agricultural net profits, sales, costs, and ratio of agricultural profits to agricultural sales for these 2 groups were calculated. Agricultural net profits for these 2 groups have been increased by 51.2% with EVAP Extension Package activities.

Table 6-9 (1) Changes in agricultural net profits of sample farmers (2nd Round)

Farmer Group	Total Net Profit (NIS/year/Group)		Number of Sample Households (HH)	Total Net Profit (NIS/year/HH)		% in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
Marj Na'jeh Farmer Extension Group (Jericho)	786,100	1,170,850	18	43,672	65,047	148.9%
Jensafout Women Extension Group (Qalqiliya)	37,975	74,740	15	2,532	4,983	196.8%
Total	824,075	1,245,590	33	24,972	37,745	151.2%

Changes in agricultural sales and costs with EVAP for 2 years for these 2 groups were 138.6% and 125.0%, respectively. Ratio of agricultural profits to agricultural sales was improved from 61.1% (baseline) to 64.9% (present) (increased by 3.8% points).

Table 6-9 (2) Changes in agricultural sales of sample farmers (2nd Round)

Group	Total Sales (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
Marj Na'jeh Farmer Extension Group (Jericho)	1,260,800	1,722,850	18	70,044	95,714	136.6%
Jensafout Women Extension Group (Qalqiliya)	43,320	84,650	15	2,888	5,643	195.4%
Total	1,304,120	1,807,500	33	39,519	54,773	138.6%

Table 6-9 (3) Changes in agricultural costs of sample farmers (2nd Round)

Group	Total Cost (NIS/year/Group)		Number of Sample Households (HH)	Average Cost (NIS/year/HH)		% of Total Cost in 2 years (Present/Baseline)
	(Baseline)	(Present)		(Baseline)	(Present)	
Marj Na'jeh Farmer Extension Group (Jericho)	502,000	624,500	18	27,889	34,694	124.4%
Jensafout Women Extension Group (Qalqiliya)	5,345	9,910	15	356	661	185.4%
Total	507,345	634,410	33	15,374	19,225	125.0%

Table 6-9 (4) Changes in ratio of agricultural net profits to agricultural sales (2nd Round)

Group	Ratio (%) of Agricultural Net Profits (Sales - Costs)/ Agricultural Sales		
	(Baseline)	(Present)	Difference (Percentage Point)
Marj Na'jeh Farmer Extension Group (Jericho)	60.2%	63.8%	+3.6%
Jensafout Women Extension Group (Qalqiliya)	87.7%	88.3%	+0.6%
Total	61.1%	64.9%	+3.8%

Comparison between the target farmers by the Project and by the 2nd round activities on changes in agricultural net profits, sales, costs, and ratio of agricultural profits to agricultural sales are shown in the table below. It could be pointed that the 2nd round actives by MOA/DOAs themselves have obtained similar level of results to those by the Project.

Table 6-10 Comparison of sample farmers targeted by the Project (EVAP-2) and by EVAP Extension Package activities with Palestinian government own budget (2nd Round)

Target	Number of Sample Households (HH)	Change in agricultural net profits	Change in agricultural sales	Change in agricultural costs	Change in ratios (%) of Agricultural Net Profits / Agricultural Sales
Farmer groups targeted by the Project (EVAP-2)	246	152.3%	129.5%	106.6%	+8.9 point
Farmer groups targeted by the 2nd Round	33	151.2%	138.6%	125%	+3.8% points

(4) Evaluation by the Six Evaluation Criteria (Relevance, Coherence, Effectiveness, Efficiency, Impact, Sustainability)

At the terminal evaluation survey implemented in September – October 2021, the Project was evaluated in accordance with 6 evaluation criteria. Evaluation results are shown in the table below. Parts with italic in the table were those added by the Project in the process of preparing this report.

Table 6-11 Evaluation on the Project by Six Evaluation Criteria

Criteria	Evaluation
Relevance High	• "The National Agriculture Sector Strategy: Resilience and Development" (2014-2016) and its successor policy, "The National Agricultural Sector Strategy: Resilience and Sustainable Development" (2017-2022), which is the national policy for the Palestinian agricultural sector in Palestine, aim to sustainably develop agriculture which plays a role in protecting the land and to further provide quality agricultural extension services to farmers. "The Palestinian National Agricultural Extension Strategy (PNAES)" (2016-2019) was formulated in March 2016 as a plan to materialize the government's policy on agricultural extension, and indicates that the EVAP Extension Package would be adopted nationwide as the national extension method. • *EVAP Extension Package upgraded by the Project were incorporated into annual extension plans for FY 2018 (6 DOAs), FY 2019 (9 DOAs), FY 2020 (15 DOAs) and FY 2021(16 DOAs). Budgets were secured for FY 2018 and FY 2019 and EVAP Extension Package activities were conducted by DOAs themselves.*
Coherence High	• The Project is being implemented to promote "support for economic self-reliance" in the priority areas (medium-term goals) of the "Country Assistance Policy for the Palestinian Authority" (2017) and is part of the "Agricultural Development Program" of Japan's cooperation to Palestine. In the field of agricultural development, especially with regard to the support for small and medium scale farmers, "The Project for Strengthening Support System Focusing on Sustainable Agriculture (ASAP)" (2007-2010) and EVAP-1 (2011-2015) have been implemented. This Project is the successor to EVAP-1, and these three technical cooperation projects have been supporting Palestinian agricultural policy in the medium and long term with continuity. • Japan made the "SHEP One Million Declaration" (At least one million small-scale farmers will be better off through SHEP by 2030) at the Seventh Tokyo International Conference on African Development (TICAD VII) in 2019, aiming to achieve Goal 2 of the Sustainable Development Goals (SDGs), "Zero Hunger". The Project is highly consistent with the SDGs as well.
Effectiveness High	• As a result of the implementation of the EVAP Extension Package, the change in income of 163 target farming households in the first three cycles for which data has been obtained so far has increased by 52.9% (46.1% for the 1st Cycle, 60.9% for the 2nd Cycle, 44.7% for the 3rd Cycle) far exceeding the target increase of 8%. • The EVAP Extension Package was implemented for a variety of commodities, including vegetables, fruit trees, rainfed crops, livestock, and food processing. For all these sub-sectors, the following two areas have been particularly successfully realized: (1) understanding market needs, and (2) raising motivation and acquiring skills through visits to Good Practice Farmers. This is leading to farmers' mindset and behavioral change, which resulted in income increase. As for the second round, however, in most cases only the first half of the package has been implemented due to the lack of government budget and COVID-19. This has resulted in significantly fewer opportunities for DOAs'

Criteria	Evaluation
	skills development through the implementation of C/P field activities than had been expected.
Efficiency Relatively high	• Among the materials and equipment provided by the Japanese side, it was confirmed that the efficiency of extension services was improved, especially through the provision of vehicles. Before the project, the number of extension officers per vehicle in all DOAs was 6.00, but it was improved to 4.09. Because of the provision of two microbuses, Good Practice Farmer and market visit tours, the most effective activities in the EVAP Extension Package, can now be carried out smoothly. • COVID-19 has been an impediment to efficiency and the shortage of government budget also added to this factor, leading to significant delays in farmer training, especially in the second round. During the pandemic, the project team made efforts to enhance the TOTs by using IT. • *Visit to Good Practice Farmers was adopted as the method for disseminating indigenous useful techniques. Techniques already introduced by some farmers could be easily introduced by the target farmers. It was observed that the target farmers were motivated to introduce techniques used by Good Practice Farmers. In many technical cooperation projects, demonstration farms are set for disseminating technologies, however, those farms often require best conditions of inputs (materials, labors, etc.) which farmers could not easily prepare. Thus, it could be said that the Project adopted more efficient extension method compared with the one with demonstration farms.* • *In Palestine, farmer groups' needs are diverse, and targets are wide-ranging, including, vegetables, fruit trees, livestock, beekeeping, etc. To efficiently prepare technical training materials in response to these diverse needs, the existing technical training materials were collected, their inventory was prepared and used to the maximum.*
Impact High	• As for the Overall Goal, "In all Districts of West Bank & Gaza Strip, the number of farmers who have experienced a rise in their income through the benefits of extension services based on the Improved EVAP Extension Package have increased", the Project is expected to achieve this goal as long as the budget is secured, because efforts were made during the project period to institutionalize the EVAP Extension Package. The efforts included preparation of, or support for EVAP e-Guidelines, annual extension plans and budget and cost processing. • The positive impact of the project was observed in the change in awareness and behavior of farmers, improvement of their livelihoods, and economic empowerment of women farmer groups (income increase of 94.2% for women group, 47.7% for men group, and 64.3% for mixed group). The impact on women was particularly significant and this was largely due to the Project's careful consideration of the Palestinian socio-cultural context, and the various creative and proactive approaches to facilitating women's participation and meeting their needs. • *It was planned that the target DOAs would implement EVAP Extension Package activities by themselves after the next year of the EVAP-2 activities. Impact of spreading benefit effects from the target farmers by the EVAP-2 activities to those by the extension activities by DOAs themselves was confirmed.* • *To increase the spread effect, the Project adopts "open access method" which enable any non-members of the target farmer groups who have interests in topics of the workshops and trainings to participate in those activities.* • *The Project has carried out public relations activities through SNS, etc. Some parts of EVAP Extension Package e-Guideline and related training materials, and list of Good Practice Farmer are uploaded at website of GDoERD.* • *Contents of the project activities are disseminated in a timely manner through Facebook of GDoERD, etc. There are 2,810 friends registered (as of February 2021), not only from Palestine, but also from Israel, Egypt, Jordan, the United States, Japan, etc.*
Sustainability Relatively high	• [Farmers' level] In both direct and indirect support farmer groups, the majority of farmers, especially those who experienced the Good Practice Farmer visit tour, were found to become self-reliant, gathering information and improving their techniques to practice market-oriented agriculture. On the other hand, there were some sub-sectors where farmers were discouraged as improvement of profit margins was limited despite efforts. Such farmers included livestock farmers who were struggling to reduce production costs and olive farmers who were faced with domestic market saturation. • [Policy] The successor policy to the PNAES, which is currently under discussion for formulation, is also on track to specify the implementation of the EVAP Extension Package. It is also expected that DOAs' annual extension plans will continue to specify the implementation of the EVAP Extension Package. • [Institutional] The organizational arrangements and personnel for the implementation of the EVAP

Criteria	Evaluation
	Extension Package have been established in both MOA and DOAs, and it is highly likely that this system will be maintained in the future. *From the 3rd Cycle onward, extension officers have participated in previous EVAP-2 activities provide guidance to the target DOAs, which leads to creating a network where extension officers could share their knowledges.* The Project has been working on the establishment of the workflow for the implementation of EVAP activities, including budget and cost processing, and it is expected that this flow will be maintained in the future. ・ [Financial] As for the second round of activities, due to the shortage of the government budget caused by the Israeli interference in 2020 and 2021, it has not been possible to obtain funds for the actual implementation of the activities. Although the budget has been secured again from April 2022 onwards, the financial situation has not reached the point where stable financial resources can be secured in the future. Meanwhile, the manual on budget request and disbursement for EVAP Extension Package and the introduction of a standardized petty cash system have made the disbursement process easier than before the Project. With the introduction of the petty cash system, the budget execution is expected to be relatively smooth as long as the budget is secured. ・ [Technical] *EVAP Extension Package e-Guideline with activity manuals and technical training materials was established and could be viewed on PCs and smartphones and could be referred in accordance with necessity even alter the Project completion.* The technical level of C/Ps who have gone through instructing other DOA staff seems to have reached a sufficient level. However, due to the delay in the 2nd round activities, most of the DOAs have not even gained experience in the autonomous implementation of the EVAP for one year to date. As a result, even though many DOAs have sufficient knowledge of the EVAP Extension Package, they have yet to acquire the skills and tips that can be acquired through practice in the field.

Source: Added updated information to "Joint Terminal Evaluation Report on the EVAP Phase 2 (October 2021)".

(5) Project monitoring sheets

As described in Chapter 2, Section 2-1, Project Monitoring Sheets Ver.7 to 10 were prepared in the 3rd period and submitted to JICA Palestine office. The project monitoring sheets are shown in Attachment 6-8.

(6) Recruitment of regular officers from non-regular extension officers

Notice on recruiting regular officers was issued by MOA on 14 October 2021. Many non-regular extension officers have participated in EVAP-2 activities whose situations have been disclosed through Facebook, etc., and the Facebook is viewed by the deputy minister who has jurisdiction over personnel affairs. As a result of the recruitment of regular officers in FY 2021, 19 non-regular extension officers who have actively participated in EVAP-2 activities have been officially employed as regular ones.



In Yatta of Hebron District with many conservative Bedouin farmers, female famers have become to participate in trainings by having male and female extension officers work in pairs (Extension officer in right side is Qamar Hawamdeh promoted to regular officer this time).

Since many extension officers who have not been promoted to regular ones were hired this time, it is quite possible that EVAP-2 activities were evaluated by MOA. It is a very good result from the viewpoint of sustainability of the Project and could be recognized as one of the major achievements of the Project.

Since male – female ratio of officers of MOA was 74% for males and 26% for females (2017), a relatively large number of female extension officers were hired this time. EVAP-2 has also introduced activities of female extension officers, which have not been made public so far. Since EVAP-2 has established gender consideration measures matching the social environment of Palestine, it will be easier

to sustainably carry out activities for supporting female farmers even after the Project completion. Activities of 19 extension officers hired as regular ones in EVAP-2 so far are as follows.



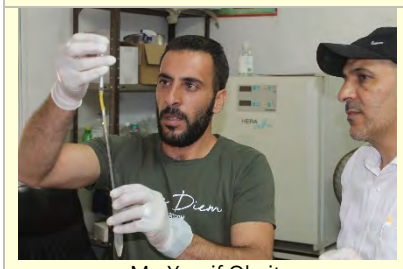
Ms. Faten Tamimi
(Hebron DOA)



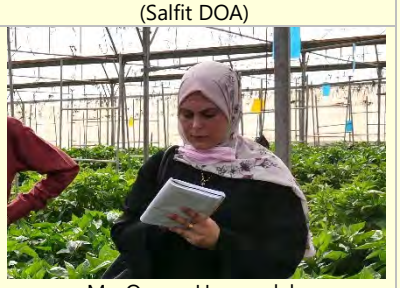
Ms. Oland Ajloni
(Salfit DOA)



Notice of MOA regarding recruitment of regular officers



Mr. Yousif Obait
(Bethlehm DOA)



Ms. Qamar Hawamdeh
(Yatta DOA)



Mr. Islam Bsharat
(Jericho DOA)



Mr. Imad Al-Taweel
(Jerusalem DOA)



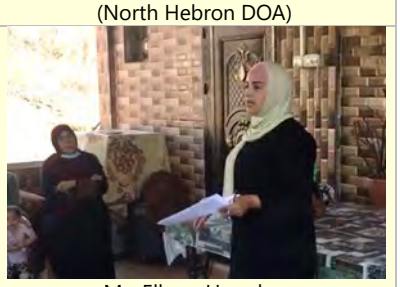
Ms. Anwar Manasra
(North Hebron DOA)



Ms. Niveen Salameh
(Bethlehem DOA)



Mr. Wael Amro
(South Hebron DOA)



Ms. Elham Hamdan
(Tubas DOA)



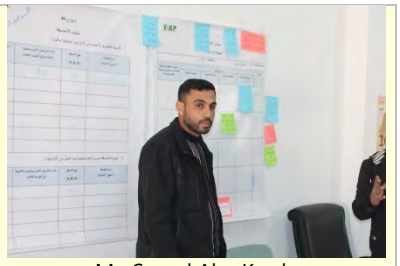
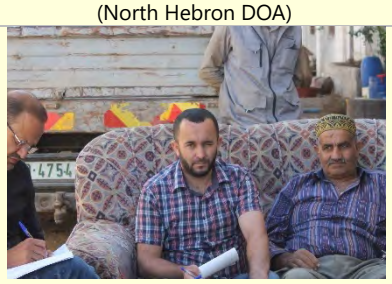
Ms. Noor Awatleh
(Jericho DOA)



Mr. Ibrahim Arar
(North Hebron DOA)



Mr. Ayman Zawahreh
(Bethlehem DOA)

 Ms. Haya Za'aqiq (North Hebron DOA)	 Mr. Sharaf Abu Karsh (North Hebron DOA)	 Mr. Saoud Abu Karsh (Jerusalem DOA)
 Ms. Rana Ikhleel (North Hebron DOA)	 Mr. Mohammed Uwaidat (Hebron DOA)	 Mr. Mutaz Hamdan (Ramallah DOA)

6-3 Activities after the Project completion

(1) Measures for achieving the overall goal

While the Project Purpose covers the farmers targeted by the Project, the Overall Goal extends its coverage to the farmers who will not be direct targets of the Project. These farmers could be categorized into i) those to be directly targeted in and after DOAs' 2nd-round activities of the EVAP Extension Package, and ii) those who are not direct targets by the Project and DOAs' own activities of the Package but utilize information including technical materials/manuals offered by the Project. Thus, the Overall Goal aims to increase agricultural income of those two-category of farmers.

Regarding measures for achieving income increase of farmers of i), EVAP Extension Package was reflected to annual extension plans of concerned DOAs, budget ceiling for implementing the Package was secured, and activities of the Package were implemented by DOAs themselves with supports from EVAP-2 Team (e.g. identification of issues for securing the budget, calculation of the budget necessary for implementing the Package, check and share the procedures for securing the budget, preparation of budget templates to be incorporated into annual extension plans of DOAs, etc.). It is expected to continue these activities. In addition, it is recommended that sustainability could be ensured by continuously reporting the progress of EVAP Extension Package activities of MOA/DOAs themselves to the JICA Palestine office.

(2) Activities related to sustainability of the Project

It is necessary to continue EVAP Extension Package activities which have been carried out by MOA/DOAs themselves with the government own budget. For smooth implementation of these activities, EVAP-2 have established various systems such as EVAP Extension Package e-Guideline, online monitoring sheet, manual on budget request and disbursement, Petty Cash for DOAs, etc. Palestinian government (MOA/DOAs) is required to continue maximum use of these systems, and to voluntarily revise the EVAP Extension Package according to the changing society, nature, and market

environments.

(3) Recommendations for successor project

Discussion on successor project (phase) is underway between the Palestinian government and JICA, but its target should be farmer group that is completely different from EVAP-2. If the target farmer group overlaps with the target of EVAP-2, the Palestinian government (MOA/DOAs) will be less motivated to continue the EVAP Extension Package activities that have been carried out with their own funds, and in the end, relying on the successor project (phase) financially. The main target of EVAP-2 was "famers applicable for group extension". There are many other farmers such as those in remote areas, nomadic farmers, farmers isolated by separation walls, etc., and how to approach those farmers is the challenge. Thus, the successor project should mainly focus on establishing and implementing new methods to disseminate technologies to those farmers and will be a separate target from EVAP-2 to ensure the sustainability of EVAP-2. As a result of JICA's support for nearly 10 years, the name of "EVAP" has been widely recognized by farmers in the West Bank and Gaza Strip. If successor project is named "EVAP-3", its activities could be carried out smoothly. If it uses a different name, it will be necessary to explain each time. In addition, the MOA has recognition (ownership) that the EVAP project have been implemented by themselves. By effectively utilizing the name of EVAP, it will be possible to maintain ownership and initiative of the MOA for the successor project.

(4) Issues which were not able to be done in the Project and items to be sent to the successor project

(a) Transfer of EVAP Extension Package e-Guideline to the server of the MOA

To continue EVAP Extension Package activities even after the Project completion, actions of (i) confirming continuation of extension activities with the Palestinian government own funds, monitoring system and clarifying responsible persons, (ii) establishing mechanism for revising EVAP Extension Package and clarifying responsible persons, (iii) clarifying responsible persons for updating e-Guideline based on revised EVAP Extension Package and technology transfer for these responsible persons, were taken by the Project completion. Due to the effect of COVID-19, travel of Japanese experts was cancelled, thus, the e-Guideline was not able to be transferred to the server of the MOA. Therefore, it is necessary to transfer it in the successor project.

(b) Preparation of TOT materials for extension officers for effectively utilizing training materials for farmers

EVAP-2 has prepared training materials for famers, and TOT materials on some technical trainings which are not sufficient. TOT materials are guidelines that explain how to effectively use training materials for farmers. In the successor project, it is necessary to firstly hear opinions from the extension officers who actually used the training materials for farmers on what kind of knowledge is needed, and how to use these training materials more effectively, and then to prepare TOT materials.

(c) Lower budget and burden for implementing EVAP Extension Package in consideration of social norms

It is necessary to discuss with the Palestinian government on which cost can be reduced without reducing the effect for implementing EVAP Extension Package activities with low budget. Practice of providing light meals to participating farmers is difficult for Japanese to understand, but it is a very important point for Palestinian side, thus, it is required to examine this issue taking into consideration of local social norms. Comment that the budget and burden for implementing EVAP Extension Package activities should be lowered was given by Salfit DOA at the time of the terminal evaluation survey, but such comments as from other DOAs have not yet been obtained. This point also needs to be confirmed in the successor project.

(d) Technical transfer to MOA/DOAs and implementation of extension activities in Gaza Strip

Since it took time to confirm implementation arrangement, sufficient technology transfer for MOA/DOAs in Gaza Strip have not been done. Online workshop was held in January 2022 to explain what MOA/DOAs of Gaza Strip should conduct during the gap period between EVAP-2 and the successor project. For smoothly starting extension activities in Gaza Strip in the successor project, they were requested to prepare long lists of possible target farmer groups (existing and newly organized ones for extension purpose) and collect information on Good Practice Farmers (targeting 3 cases per DOA).

(e) Confirming the progress in revising Palestine National Agricultural Extension Strategy (PNAES) and reflection of agricultural extension activities based on EVAP Extension Package

Palestine National Agricultural Extension Strategy (PNAES) is planned to be revised after 2022. Since current PNAES includes agricultural extension using EVAP Extension Package, the Package was able to be incorporated into annual extension plans, and the budget for implementing the Package activities were secure. Due to influence of COVID-19, revision work on PNAES was suspended and supports could not be provided by the Project. Therefore, as the current PNAES, it is necessary for JICA to encourage the Palestinian government (MOA) to include agricultural extension using EVAP Extension Package into the revised PNAES.

Attachments

Attachment 1-1

The Project on Improved Extension for Value-Added Agriculture in Palestine（EVAP-2）

Project Summary





Version: January 2022

Contents

1. Project overview
2. Target farmer groups
3. Challenges and characteristics in Palestine agriculture
4. Project implementation policy
5. EVAP Extension Package
6. Contents of Extension Steps (Blue Line)
7. Contents of Technology Development (Green Box)
8. Gender mainstreaming linking to the project purpose
9. Project results and changes in farmers' behavior

1. Project overview

1) Project areas

All Palestinian Territories:

- 1st year: Jordan valley area (3 DOAs / 6 farmer groups)
- 2nd year: Semi-coastal area (3 DOAs / 6 farmer groups)
- 3rd year: Central Highland area (3 DOAs / 6 farmer groups)
- 4th year: Eastern slope area (5 DOAs / 6 farmer groups)

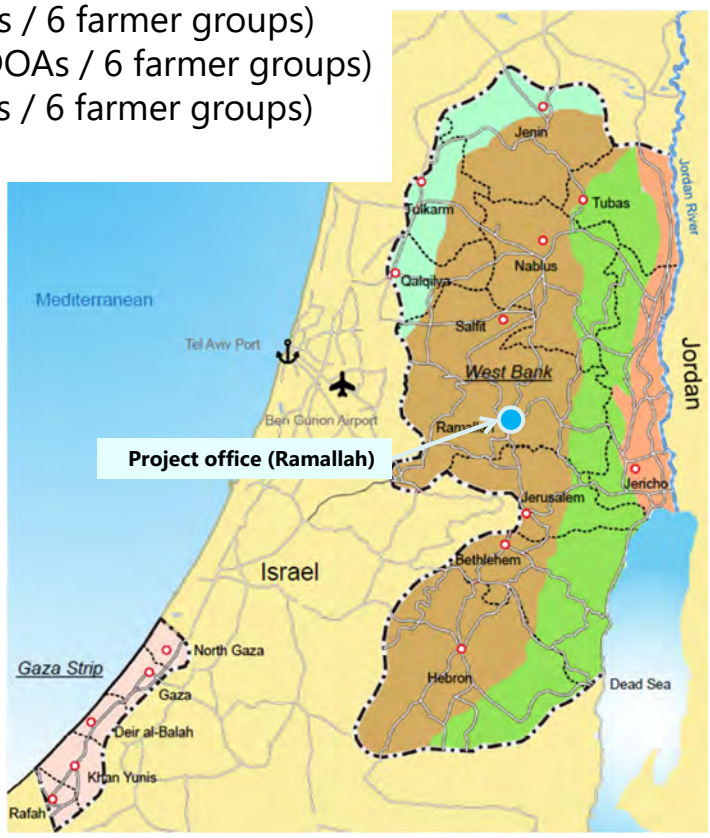
Note: DOA: Directorate of Agriculture



Palestinian Territories

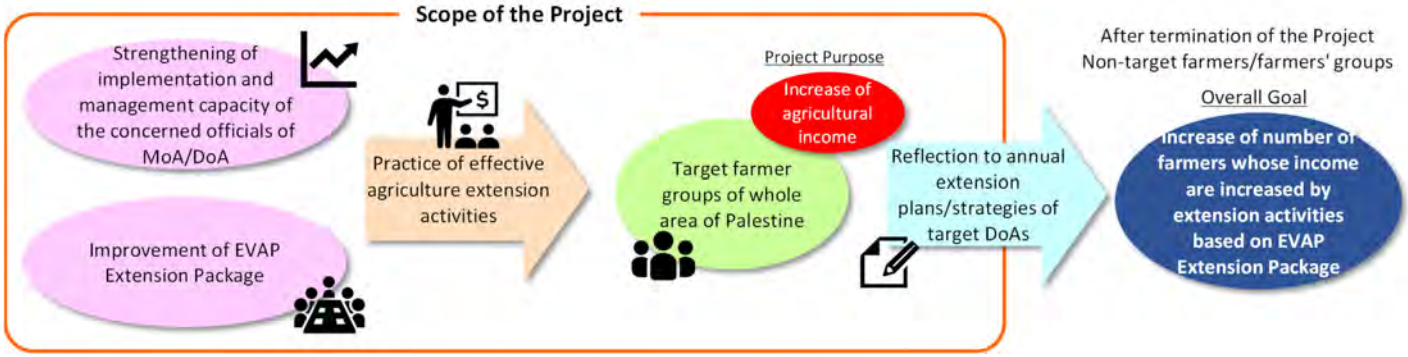
Gaza Strip	West Bank
Area: 365 km² (approximately 60% of the 23 Tokyo wards)	Area: 5,655 km² (approximately the same as Mie Prefecture)
Population: 1.6 million	Population: 2.5 million

Source: Ministry of Foreign Affairs of Japan



1. Project overview

2) Project purposes and scope



Project purpose: Agricultural income growth rate of farmers in the target farm group: **8%** (2 years, Nominal Price) (* Agricultural income = gross agricultural income - agricultural expenses)

3) Project period

August 2016-February 2022 (5 years and 7 months)

4) Japanese experts

Team leader/farm management, co-team leader, agricultural extension plan, training materials, gender/farmer organizations, vegetable cultivation, livestock management, water saving technology, marketing, monitoring, etc.

2. Target farmer groups

ID	Group Name	DOA	Main Products
(1-1)	Mothers' School Association in Al Badhan	Nablus	Vegetable
(1-2)	Frosh Beit Dajan Cooperative Association	Nablus	Vegetable
(1-3)	Aqqaba Women Extension Sub-Group	Tubas	Vegetable, Herb, Almond
(1-4)	Bardala Women Extension Group	Tubas	Vegetable
(1-5)	Al Mussafah Extension Sub-Group	Jericho	Livestock
(1-6)	Jiftlik Farmer Extension Group	Jericho	Vegetable
(2-1)	Al-Izab Farmer Extension Group	Qalqiliya	Vegetable
(2-2)	Qalqilia Livestock Extension Group	Qalqiliya	Livestock
(2-3)	Baqa Al Sharqeiah Farmer Group	Tulkarm	Vegetable
(2-4)	Saida Cooperative Association for Processing and Marketing of Rural Products	Tulkarm	Vegetable, Herb
(2-5)	Maithalon and Sanor Farmer Extension Group	Jenin	Rainfed Crop, Vegetable
(2-6)	Qabatiya Farmer Extension Group	Jenin	Vegetable
(3-1)	Dier Ballout Women Extension Group	Salfit	Vegetable, Herb
(3-2)	Salfit Olive Farmer Extension Group	Salfit	Olive
(3-3)	Kharbatheh Musbah Olive Farmer Extension Group	Ramallah	Olive
(3-4)	Al Moghuyer Livestock Farmer Extension Group	Ramallah	Livestock
(3-5)	Beit Doqo Grape Farmer Extension Group	Jerusalem	Fruit
(3-6)	Al Sawahreh Arab Cooperative Society for Livestock Development	Jerusalem	Livestock
(4-1)	Al Khader Grape Farmer Extension Group	Bethlehem	Fruit
(4-2)	Janata Livestock Farmer Extension Group	Bethlehem	Livestock
(4-3)	Sa'eer Farmer Extension Group	Hebron	Vegetable
(4-4)	Agriculture Knowledge Leading Group in Halhoul	North Hebron	Fruit
(4-5)	Yatta Agriculture Innovative Farmer Extension Group	Yatta	Livestock
(4-6)	Al Hejri Farmer Extension Group	South Hebron	Vegetable

3. Challenges and characteristics in Palestine agriculture

1) Existence of good practices and technical disparity among farmers

- Some farmers have already adopted local good practices for profitable agriculture in the area. But those techniques are not widely disseminated to other farmers.

2) Negative impacts of conflicting with Israel

- Farmers are constantly influenced of high-quality crops from Israel and are forced to compete with them.
- Israel sometimes stop transportation at the checkpoints. It causes unstable crop prices.
- The main source of irrigation is wells, but there is a chronic shortage of irrigation water because Israel does not allow well drilling and dredging.
- Agricultural land destruction and expropriation by the Israeli army also frequently occurs.
- Prices of chemical fertilizers, feed and agricultural materials are high due to distribution restrictions imposed by Israel.







3. Challenges and characteristics in Palestine agriculture

3) Low interest of farmers in obtaining and using information

- Farmers do not fully understand market price trends and market needs.
- Generally, it is said that agricultural management needs to reflect many kinds of information. But most farmers does not use it very much.

4) Social environment peculiar to Islamic region

- Due to the social environment peculiar to the Islamic region, it is difficult for female farmers to access external information.

5) High percentage of owing smartphone and using SNS

- The ratio of owning smartphones is high, and many farmers own at least one in their household. Many farmers use SNS because they want access to the outside in the area blocked by Israel.



Cucumbers produced in Israel



Cauliflowers that is discarded due to overproduction in Palestine



Female farmers in a conservative area

4. Project implementation policy

Policy-1: Motivating farmers through visiting Good Practice Farmers

- The project established a database of existing Good Practice Farmers that are engaged in profitable agriculture with self-effort.
- The project take target farmers to them for study tour. The target farmers compared themselves with the Good Practice Farmer and motivates themselves through recognizing the differences.



Good Practice Farmer database: So far, 74 farmer cases have been posted.



Good Practice Farmer introduction sheet: Mass Media Department of MOA interviewed and prepared focusing on "farming methods", "sales methods", and "turning points that changed behavior" within one page.

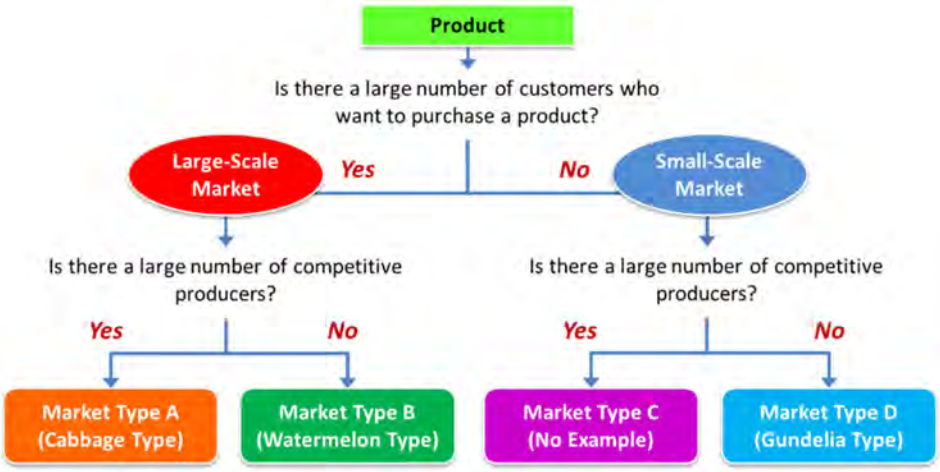


Field visit and knowledge sharing with Good Practice Farmers selected by the target farmers.

4. Project implementation policy

Policy-2: Development and dissemination of marketing methods that farmers can practice

- Palestinian crops can be roughly divided into 4 (2 x 2) for categories depending on “the number of consumers (large / small)" and "the number of competing farmers (large / small)". It turns out that the characteristics of crops in each category in market differ. It was also found that it is effective to change the sales destination (wholesale market, retail store direct sales, consumer direct sales) and sales strategy for each category.



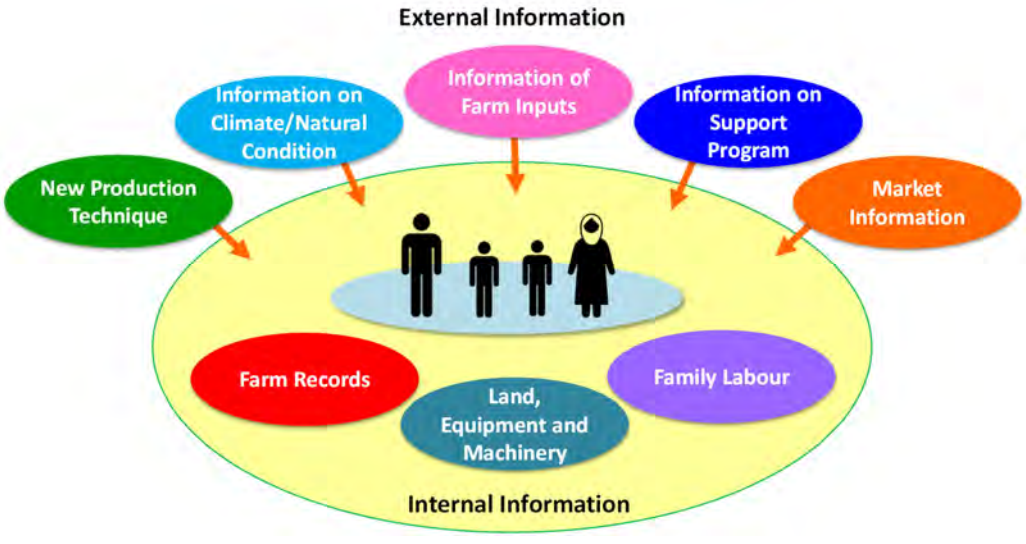


Farmers understanding market characteristics of each crops through market segmentation exercises

4. Project implementation policy

Policy-3: Accumulation of various information necessary for agricultural management

- It is generally said that agricultural management requires a variety of information as shown in the figure below. In particular, it is said that "internalization of external information" is important (many farmers have weaknesses in it).
- The project aims to accumulate this information through a series of extension activities.



4. Project implementation policy

Policy-4: Disseminate information through SNS and motivating extension officers

- Many farmers in Palestine use their smartphones and use SNS for information acquisition.
- The project have been disseminating information through Facebook (account name: "Ershad Moa") for public relation.
- The project also posted articles of extension officers conducting extension activities to motivate them to participate actively in the project activities.



Farmers exchanging SNS account information



On-site soil analysis by extension officers



Facebook (Account name "Ershad Moa")

5. EVAP Extension Package (EVAP EP)



6. Contents of Extension Steps (Blue Line)

Step-2: Awareness Creation Tour (Good Practice Farmer tour)

2-1) Participatory planning workshop for the tour

In the workshop, target farmers read “Good Practice Farmer introduction sheets” with extension officers. Then the farmers select several Good Practice Farmers and prepare schedule to visit them.

2-2) Implementation of the tour

By showing examples of small and medium-sized farmers practicing market-oriented agriculture, the project will motivate the target farmers to participate in the project activities and raise their awareness of their problems. The important point is to make farmers aware that the same "Palestinian farmers" are practicing market-oriented agriculture by their self-effort.



Step 2-1: Participatory Workshop for Planning Good Practice Farmer tour



Step 2-2: Implementation of Good Practice Farmer tour



Step 2-2: Implementation of Good Practice Farmer tour

6. Contents of Extension Steps (Blue Line)

Step-3: Market Opportunity Finding

3-1) Participatory planning workshop for market visit

DOAs conduct marketing trainings for farmers (market segmentation and analysis training for farmers). Then farmers prepare schedules for market visit plans in participatory approach. The important point for DOAs is to facilitate farmers to select markets to visit that are likely to be shipped realistically.

3-2) Implementation of market visit

The target farmers visit wholesale markets, retail stores, agricultural processing manufacturers, etc. and collect market information based on the results of marketing training. If farmers select, they may visit “upstream market” of the value chain such as nurseries, feed companies, agricultural input companies.



Step 3-1: Participatory planning workshop for market visit



Step 3-2: Market visit (wholesale market)



Step 3-2: Market visit (retail store in the city)

6. Contents of Extension Steps (Blue Line)

Step-4: Farming Improvement Planning with Extension Needs Identification

- Farmers individually select crops for next seasons based on information acquired the previous steps and make individual farming improvement plans
- Farmer groups prepare one "technical training plan" to be conducted by DOAs in the project



Based on the information obtained in the previous steps, the farmers themselves formulate individual farming improvement plans.



Based on individual farming improvement plans, farmers prepare a technical training plan in the project as a farmer group.

6. Contents of Extension Steps (Blue Line)

Step-6: Extension Activities for Farming Improvement

- Based on the training plans prepare by the farmer groups, technical trainings are conducted by extension officers.
  - ➢ Comprehensive (AtoZ) technical training (eg watermelon cultivation technique, cucumber cultivation technique, gunderia (herb) cultivation technique, thyme cultivation technique, paprika cultivation technique, etc.)
  - ➢ Technical trainings for specific subject (eg control of tomato pests, pesticide spraying and spray management, disease control of sheep and goats, supplemental irrigation of olives, pruning and defoliation of grapes, group selling, sales promotion, negotiation skills etc.)









7. Contents of Technology Development (Green Box)

1) Introduction and trial of new technologies

For problems that cannot be solved by conventional technologies, we have introduced and tried new technologies in the field.





- **Soil management technology:** On-site soil diagnosis by extension officers
- **Irrigation technology:** Supplemental irrigation for olives
- **Crop cultivation technology:** Watermelon forcing cultivation in greenhouses, grafted seedlings (watermelon, tomato, cucumber) to prevent soil borne diseases, alfalfa production, gundelia cultivation in home garden
- **Marketing technology:** Market segmentation methods suitable for Palestine, direct selling to retailers and consumers
- by farmers.
- **Technology for livestock**:
  A searching charts and fact sheets for perinatal infectious disease of sheep, feeding management methods of lamb, mechanism of artificial insemination services





8. Gender mainstreaming linking to the project purpose

- ✓ In Palestine, there are female farmer groups at a rate of about 20-30%. For gender consideration in the project, we selected those groups at the same ratio in the target farmer groups.
- ✓ After the selection of the groups, extension officers think out gender consideration measures for each farmer group as a participatory approach by extension officers.



The facilitator listens opinions from men and women alternately at the workshop.



Two vehicles were arranged separately for men and women according if farmers needs.



The project put "colorings" in the workshop venue to keep children quiet so that female farmers could concentrate.



Pesticide training was conducted for female farmers so that they could spray it while men were migrating to Israel.



To make it easier for women to participate in market survey, the project arranged visits to factories and retailers as well as wholesale markets.



The project has informed female farmers that they may participate the activities with children.



Many female farmers are engaged in seedling raising. The project conducted a tour to visit nurseries to transfer technologies.



Networking among female farmer groups with common challenges in farming were expanded through visiting.

9. Project results and changes in farmer' behavior

1) Target farmers Farmers' groups and number of beneficiaries

Cycle (Year)	Type of Farmer Groups			Total Number of Participants (Person-Session)			Total Beneficiaries			Number of Sessions	Average Participants per Session
	Mixed Group	Male Group	Female Group	Male	Female	Total	Male	Female	Total		
1st Cycle Farmer Group (2017-2018)	2	2	2	478	446	924	165	118	283	71	13.0
	33.3%	33.3%	33.3%	51.7%	48.3%	100.0%	58.3%	41.7%	100.0%	-	-
2nd Cycle Farmer Group (2018-2019)	1	4	1	839	325	1,164	306	85	391	77	15.1
	16.7%	66.7%	16.7%	72.1%	27.9%	100.0%	78.3%	21.7%	100.0%	-	-
3rd Cycle Farmer Group (2019-2020)	3	2	1	794	284	1,078	267	91	358	75	14.4
	50.0%	33.3%	16.7%	73.7%	26.3%	100.0%	74.6%	25.4%	100.0%	-	-
4th Cycle Farmer Group (2020-2021)	6	0	0	991	526	1517	292	131	423	90	16.9
	100.0%	0.0%	0.0%	65.3%	34.7%	100.0%	69.0%	31.0%	100.0%	-	-
Total	12	8	4	3,102	1,581	4,683	1,030	425	1,455	313	15.0
	50.0%	33.3%	16.7%	66.2%	33.8%	100.0%	70.8%	29.2%	100.0%	-	-

- The number of target farmer groups was 24 (mixed G: 12, male G: 8, female G: 4).
- The total number of participants was 4,683, and the number of beneficiaries (the number of farmers who participated in the activity at least once) was 1,455.
- The male-female ratio of beneficiaries was 70.8% for males and 29.2% for females. (Inventory survey conducted in EVAP-1: Male-female ratio of farmers group members in the Jordan Valley area (male 78.5%: female 21.5%).
- The number of extension activities was 313, and the average number of participants per extension activities was 15.0.

9. Project results and changes in farmer' behavior

2-1) Changes in agricultural income (net income) of sample farmers (by cycle)

Cycle (Year)	Number of Sample Households (HH)	Total Net Profit (NIS/year/HH)		% in 2 years (Present/ Baseline)
		(Baseline)	(Present)	
1st Cycle Farmer Group (2017-2018)	59	12,936	18,905	146.1%
2nd Cycle Farmer Group (2018-2019)	56	20,311	32,682	160.9%
3rd Cycle Farmer Group (2019-2020)	48	10,269	14,860	144.7%
4th Cycle Farmer Group (2020-2021)	83	27,731	42,080	151.7%
Total	246	19,087	29,071	152.3%

- In the total of all sample farmers (246 farmers), the change in agricultural income was 152.3% (up 52.3%), which is higher than the project target of 8% increase in agricultural income (net income) (2 years).

9. Project results and changes in farmer' behavior

2-2) Changes in agricultural income (net income) of sample farmers (by farmer group type)

Type of Farmer Group	Number of Sample Households (HH)	Total Net Profit (NIS/year/HH)		% in 2 years (Present/ Baseline)
		(Baseline)	(Present)	
Mixed Group	117	22,457	34,425	153.3%
Male Group	70	27,418	40,504	147.7%
Female Group	59	2,518	4,890	194.2%
Total	246	19,087	29,071	152.3%

- The change in agricultural income (Net profit) in the second year from the start of extension activities was 153.3.% for the mixed-gender farmer group, 147.7% for the male farmer group, and 194.2% for the female farmer group compared to the case without the project. The rate of change of the female farmer group was the largest.
- On the other hand, looking at the average agricultural income per farmer (Net profit) on a monetary basis, the amount of female farmer group members tended to be as small as about 1/8 of that of male farmer group members.

9. Project results and changes in farmer' behavior

3-1) Changes in sales (gross agricultural profit) of sample farmers (by cycle)

Cycle (Year)	Number of Sample Households (HH)	Average Sales (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)
		(Baseline)	(Present)	
1st Cycle Farmer Group (2017-2018)	59	33,277	34,324	103.1%
2nd Cycle Farmer Group (2018-2019)	56	34,017	51,098	150.2%
3rd Cycle Farmer Group (2019-2020)	48	25,918	30,921	119.3%
4th Cycle Farmer Group (2020-2021)	83	56,067	75,624	134.9%
Total	246	39,699	51,413	129.5%

- In order to understand the factors behind the change in agricultural income (Net profit), sales (gross agricultural income) for the second year from the start of extension activities was calculated.
- As a result, the change in sales (gross agricultural profit) for all sample farmers over two years was 129.5%.

9. Project results and changes in farmer' behavior

3-2) Changes in sales (gross agricultural profit) of sample farmers (by farmer group type)

Type of Farmer Group	Number of Sample Households (HH)	Average Sales (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)
		(Baseline)	(Present)	
Mixed Group	117	46,570	62,427	134.1%
Male Group	70	56,830	69,368	122.1%
Female Group	59	5,749	8,269	143.8%
Total	246	39,699	51,413	129.5%

- In terms of changes in sales (gross agricultural income), the rate of increase in female farmers' groups was the largest.

9. Project results and changes in farmer' behavior

4-1) Changes in production cost of sample farmers (by cycle)

Cycle (Year)	Number of Sample Households (HH)	Average Production Cost (NIS/year/HH)		% of Total Production Cost in 2 years (Present/Baseline)
		(Baseline)	(Present)	
1st Cycle Farmer Group (2017-2018)	59	15,734	10,585	67.3%
2nd Cycle Farmer Group (2018-2019)	56	15,594	18,483	118.5%
3rd Cycle Farmer Group (2019-2020)	48	15,670	16,343	104.3%
4th Cycle Farmer Group (2020-2021)	83	28,336	33,544	118.4%
Total	246	19,941	21,253	106.6%

- The change in production cost for all sample farmers over two years was 106.6%.
- In order to maximize agricultural income (Net profit), it is desirable to increase sales (gross agricultural profit) and decrease production cost, but production cost has tended to increase in all sample farmers.

9. Project results and changes in farmer' behavior

4-2) Changes in production cost of sample farmers (by farmer group type)

Type of Farmer Group	Number of Sample Households (HH)	Average Production Cost (NIS/year/HH)		% of Total Production Cost in 2 years (Present/Baseline)
		(Baseline)	(Present)	
Mixed Group	117	24,125	28,154	134.1%
Male Group	70	27,664	25,670	92.8%
Female Group	59	2,481	2,327	93.8%
Total	246	19,941	21,253	106.6%

- Regarding changes in production cost, only the mixed-gender farmer group was on an increasing trend at 134.1%, the male farmer group was 92.8%, and the female farmer group was 93.8%, both on a downward trend.

9. Project results and changes in farmer' behavior

5-1) Changes in net profit ratio (net profit / production cost) of sample farmers (by cycle)

Cycle (Year)	Net Profit Ratio (Sales - Production Cost) / Sales		
	(Baseline)	(Present)	Difference (Percentage Point)
1st Cycle Farmer Group (2017-2018)	52.7%	69.2%	+16.4%
2nd Cycle Farmer Group (2018-2019)	54.2%	63.8%	+9.7%
3rd Cycle Farmer Group (2019-2020)	39.5%	47.1%	+7.6%
4th Cycle Farmer Group (2020-2021)	49.5%	55.6%	+6.2%
Total	49.8%	58.7%	+8.9%

- The net profit ratio (%) ((sales-production cost) / sales) was calculated as an index for diagnosing agricultural management.
- As a result, in all sample farmers, it was 49.8% without the project, but it was 58.7% in the second year from the start of extension activities, an increase of 8.9 points, therefore it was observed that the agricultural management would be improved.
- This index is one of the important indicators for evaluating market-oriented agriculture.

9. Project results and changes in farmer' behavior

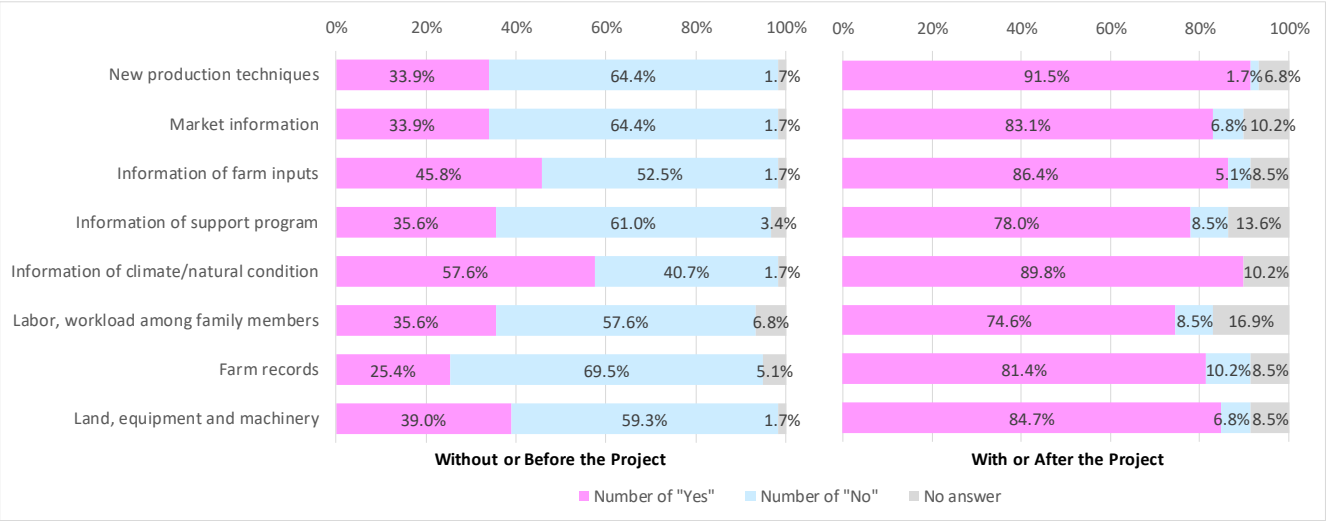
5-2) Changes in net profit ratio (net profit / production cost) of sample farmers (by farmer group type)

Type of Farmer Group	Net Profit (Sales - Production Costs) / Sales		
	(Baseline)	(Present)	Difference (Percentage Point)
Mixed Group	48.2%	54.9%	+6.7%
Male Group	51.3%	63.0%	+11.7%
Female Group	56.8%	71.9%	+15.0%
Total	49.8%	58.7%	+8.9%

- The value of female farmers group members improved by +15.0 points from 56.8% to 71.9%, and the rate of change was larger than that of the mixed gender group (+6.7 points) and the male farmers group (+11.7 points).

9. Project results and changes in farmer' behavior

6) Changes in information use in farming (1st cycle farmer groups)



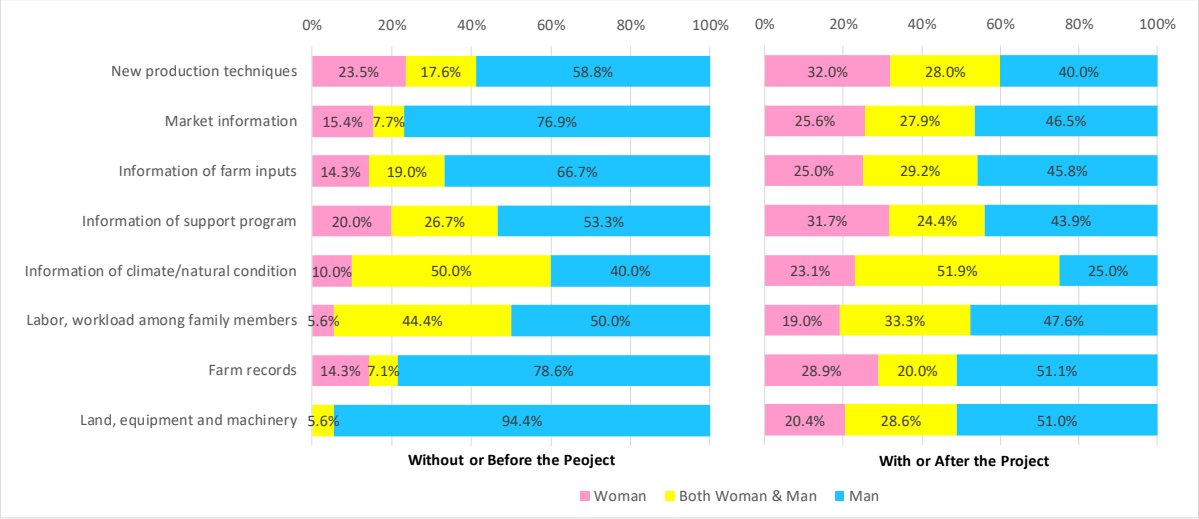
- ✓ In all the information categories, the percentage of farmers using it has increased.
- ✓ In order to sustainably increase agricultural income, it would be important for farmers to obtain various information in well-balanced manner, rather than to obtain only specific cultivation technique through agricultural extension.



Farm records that farmers actually kept after technical training in EVAP-2

9. Project results and changes in farmer' behavior

7) Changes of person who has the role of obtaining information in households by gender for two years (1st cycle farmer groups)



- ✓ In all the information categories, the total ratio of households in which "women" or "men and women" have access to information has increased.
- ✓ It was indicated that the project may have mitigated the information gaps between men and women.
- ✓ It was also indicated that mitigating the information gaps between men and women may encourage female farmers to participate in decision-making at households.



A female farmer who commented, "By sharing the information obtained from the project with my family, my family has helped me in introducing new crops."

END

Attachment 1-2

The Project on Improved Extension for Value-Added Agriculture in Palestine（EVAP-2）

Gender Mainstreaming in EVAP-2





Version: January 2022

1. Basic policies and viewpoints of gender consideration

1) Practical gender mainstreaming that directly leads to improved agricultural profits

Four view points for gender considerations:

① Improving women's participant to training
- Equal access to training opportunities
- Providing appropriate trainings to right persons
- Preparing activity plans by participation of beneficial farmers
- Facilitating target female farmers to participate in EVAP activities including trainings

② Enhancing work efficiency and productivities in farm households
- Enhancing work efficiency and decrease workloads in consideration of actual situation of division of works/responsibilities by gender
- Mitigating information gap by gender

③ Facilitating women's involvement in decision-making in family
- Facilitating sharing of information on technologies/know-hows and communication among family members through distribution of newsletters
- Facilitating women's involvement in decision-making by mitigating information gap between male members and female ones

④ Facilitating gender awareness of men and local communities
- Facilitating male farmers and local communities' awareness on effectiveness of gender consideration through transmission of related information by newsletters and SNS

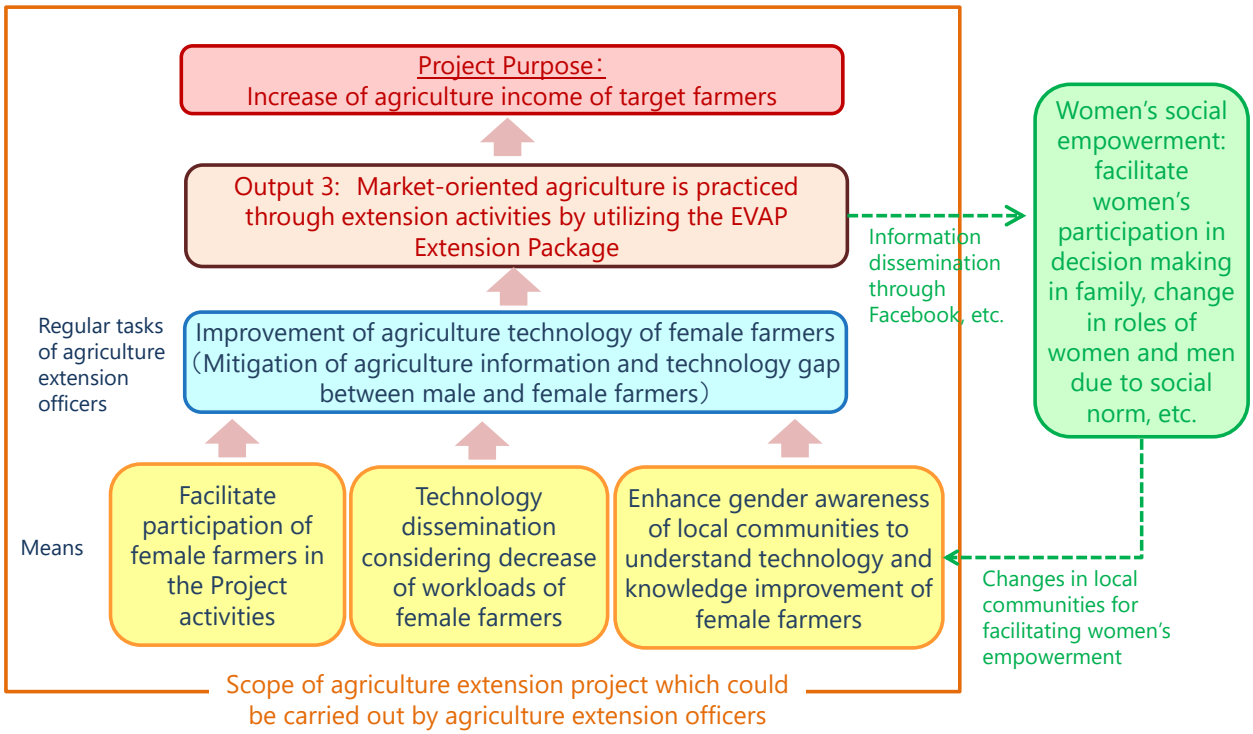
1. Basic policies and viewpoints of gender consideration

2) Sustainable implementation of gender consideration measures in agriculture extension by MOA/DOAs

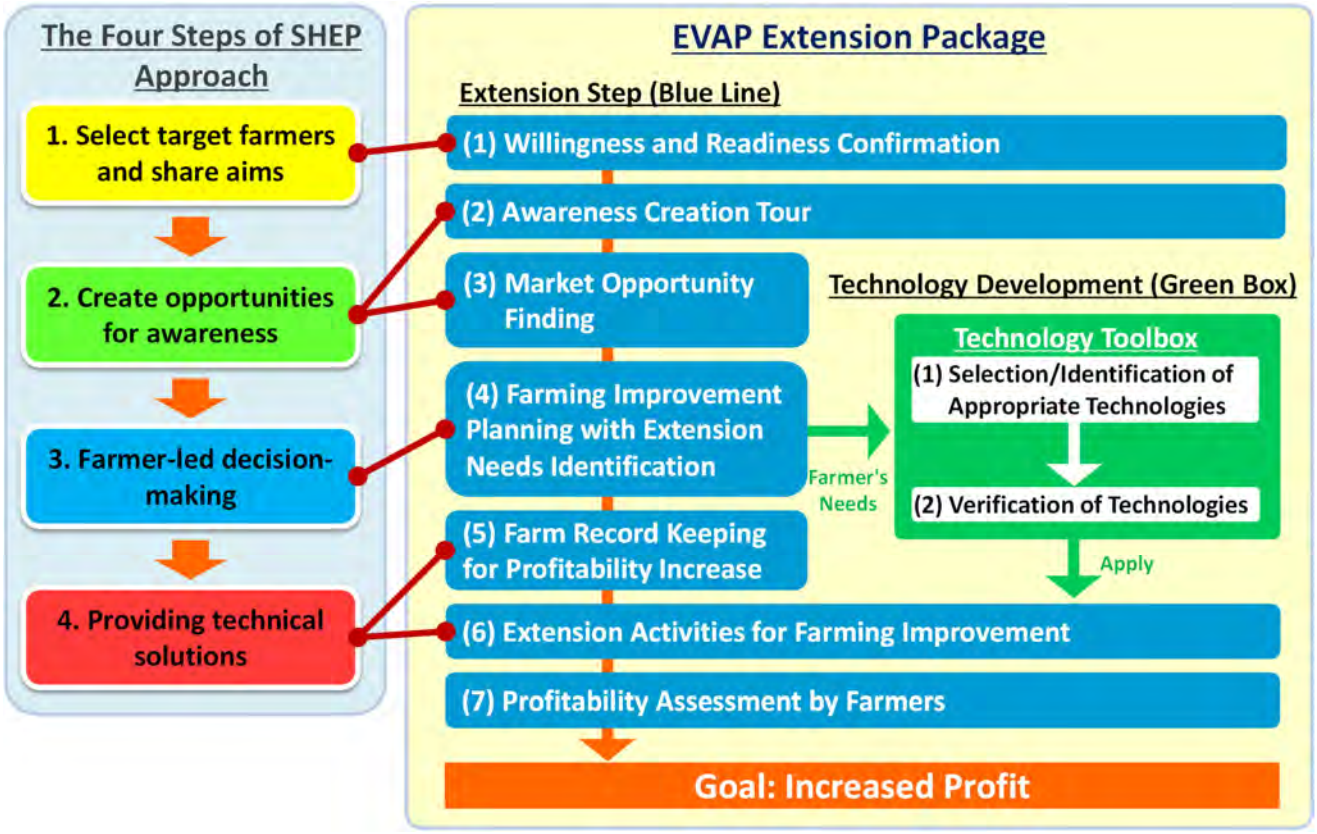
(a) Gender consideration measures were regarded as means for achieving the project outputs and purpose.
(b) Common understanding on gender consideration was shared with relevant officers of MOA/DOAs by linking gender consideration measures to regular tasks of agriculture extension officers of "improvement of agriculture technology of farmers (including female ones)" and regarding "mitigation of agriculture information and technology gap between male and female farmers" as purpose of gender consideration.
(c) Gender consideration measures were taken within the scope of agriculture extension project.

1. Basic policies and viewpoints of gender consideration

2) Sustainable implementation of gender consideration measures in agriculture extension by MOA/DOAs



2. EVAP Extension Package



3. Gender mainstreaming in EVAP Extension Package

1) Four major points to reflect the basic policies of gender consideration in extension activities in EVAP-2:

(a) Step 1 (Willingness and Readiness Confirmation): Gender consideration basic policy of EVAP-2 are shared with target farmer groups

(b) Step 1-3 (Discussion on Gender Awareness and Consideration): Extension officers examine and prepare gender consideration measures by target group in consideration of social environments of respective selected target farmer groups

(c) Step 4 (Farming Improvement Planning with Extension Needs Identification): Target farmer groups prepare technical training plans in consideration of gender viewpoints (column for gender consideration measures is added to format for planning technical trainings used in workshops)

(d) Step 6 (Extension Activities for Farming Improvement): Technical trainings based on plans prepared by farmer groups are implemented.

3. Gender mainstreaming in EVAP Extension Package

2) Specific gender consideration measures in EVAP Extension Package

Step	Gender Consideration	Viewpoints
Common for **all the Steps**	• For facilitating women's active participation and their concentration in activities, following measures are considered/taken: - Select appropriate date, time, duration, destination for tour, venue for workshop. - Facilitation particularly for women's actively giving comments. - Arrange separate vehicles and sessions for tours by gender considering social convention of target groups. - Welcome participants to bring their children to tours and workshops. - Prepare playthings for children. - Assign both male/female DOA extensionists as facilitators and companions. - Activities of respective steps are compiled and shared with members of target groups through newsletters and Facebook of MOA for making particularly male members i) understand activities of female groups and ii) share with their female family members.	①④

3. Gender mainstreaming in EVAP Extension Package

Step	Gender Consideration	Viewpoints
Step 1: Willingness and Readiness Confirmation	• Separate selection of women groups is considered. -- > Needs of women members could be appropriately identified. • ***Gender-wise current situation of access to important information for farming are checked and analyzed.*** • Family members engaged in respective agricultural activities are checked by gender. • Target farmers are registered with gender information.	①④
Step 2: Awareness Creation Tour	• Cases of women's active participation in market-oriented agriculture activities (but small-scale, less work loads, etc.) are selected as targets for the tours for not only women groups but also men ones.	①②③④
Step 3: Market Opportunity Finding	• Other points than market demands/prices (e.g. workload, living hours/cycles of women, etc.) are considered for selecting target products/crops.	①②③

3. Gender mainstreaming in EVAP Extension Package

Step	Gender Consideration	Viewpoints
Step 4: Farming Improvement Planning with Extension Needs Identification	• Following gender points are reconfirmed with DOA extensionists at the pre-training guidance: - Selection of target crops: Other points than market demands/prices (e.g. workload, living hours/cycles of women, etc.) are considered. If male members select crops which would require their female family members' workforces and high supports, it is necessary to check female members' intentions. - Extension planning: Necessary trainings/extension services should be provided to right persons who are engaged in corresponding agricultural activities. Thus, target farmers could plan training contents with inviting their other family members if they want and it is necessary to maximize family benefits.	①②③④

3. Gender mainstreaming in EVAP Extension Package

Step	Gender Consideration	Viewpoints
Step 5: Farm Record Keeping	• Appropriate measures are considered/taken for facilitating particularly women's participation and their concentration in activities.	①③
Step 6: Technical Trainings	• Trainings and technical supports to enhance skills/ knowledge and improve work efficiency of particularly women are provided in consideration of their workload and living hours. • Separate sessions by gender are arranged if necessary.	①②③
Step 7: Profitability Assessment by Farmers	• Effectiveness of new skills/knowledge provided by EVAP is assessed by gender based on farm records of participating farmers. • ***Women's economic and social empowerment are evaluated by checking changes/improvement of such indicators as accesses/controls to resources, work efficiency, participation in decision-making, and gender awareness.***	①②③④

4. Examples of gender consideration measures in EVAP-2



As there is a tendency for men and women to sit separately in mixed-sex workshops, extension officers moved from place to place and listened to needs from both sides.



As there are women who avoid refusing to ride the same vehicle as men in a conservative area, we arranged vehicles separately for men and women, and made it easy for women farmers.



Female farmers listening to intensively technical training behind children quietly playing with colouring pictures. There are many female farmers who cannot concentrate in training with children, so EVAP introduced one of the considerations to improve the effectiveness of activities at low cost.



Male farmers often take charge of pesticide spraying but based on the needs of female farmers who want to be able to cope with the absence of men's migrant workers in recent years, EVAP conducted training on pesticide spraying technology for female farmers.



In a conservative area, women are not allowed to visit the wholesale market, so based on the needs of women farmers, we considered that they could also visit agricultural processors and retailers.



As there was a tendency to refrain from participating in activities with children, EVAP has announced that children may participate in activities. A female farmer who knew it and participated in olive cultivation study tours with children.



Since it is customary for women to carry out raising seedlings in agricultural work, we conducted a tour of visiting seed dealers based on the needs of female farmers and explained how to select healthy seedlings.



Female farmers exchanging phone numbers with a female farmer visiting by a study tour. Knowledge sharing among female farmers can expand the network where female farmers with common issues can exchange information.

End

Attachment 2-1

MINUTES OF 7th JOINT COORDINATING COMMITTEE MEETING

OF

THE PROJECT ON IMPROVED EXTENSION

FOR VALUE-ADDED AGRICULTURE (EVAP PHASE 2)

AMONG

AUTHORITIES CONCERNED OF PALESTINIAN AUTHORITY

AND

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Ramallah, 18th September 2019

Amjad Salah
Assistant Deputy Minister for Technical Affaires
Ministry of Agriculture (MOA)
Chairperson of JCC (EVAP Phase 2)

Toshiya Abe
Chief Representative
Palestine Office
Japan International Cooperation Agency (JICA)

Firas Farsakh
Representative
Ministry of Finance and Planning (MOFP)

Tomoki Nakamura
Chief Adviser of the JICA Project Team
(EVAP Phase 2)

Minutes of the 7th JCC Meeting of the Project on Improved Extension for Value-added Agriculture (EVAP Phase 2)

Date : 18th September 2019
Venue : MOA Meeting Hall, 6th Floor, HQ Building, Ramallah
Time : 11:00 - 13:00
Participants : As per the Attachment: List of Attendees

OPENING ADDRESSES

Mr. Amjad Salah, Assistant Deputy Minister, Chairperson of JCC, firstly welcomed all participants to the 7th JCC meeting including JICA partner, EVAP team members, members of the JCC, and colleagues from the MOF and MOA. He extended the apologies of H.E. the Minister of Agriculture for not being able to attend the meeting as scheduled due to urgent matter with Palestinian Cabinet. Mr. Amjad confirmed that the project has been progressing very well over past reporting period. He also extended his appreciation to JICA for the generous supports and cooperation for MOA including ongoing procurement of eight cars for the 3rd and 4th Cycle DOAs. He explained the government's new development policy and approach (so-called cluster approach), appreciated the attendance of JICA Palestine Office to the opening ceremony of the first agricultural cluster launched in Qalqilia at the beginning of September 2019, and hoped that JICA could join in the new cluster initiative in JRRV. The area of JRRV is currently threaten by confiscation and attachment to the Israel. This movement was announced recently by the Israeli government before the present Israeli election. Palestinian farmers in JRRV as well known by EVAP team members, are suffering a lot from the Israeli daily harassment and from the harsh weather conditions. It is quite important to stand against the Israeli plan of JRRV annexation.

Mr. Amjad confirmed the main agenda of the 7th JCC meeting as follows: (i) Agenda-1: Project progress and achievement over past 6 months; (ii) Agenda-2: Progress of the 2nd round of EVAP EP by the MOA; (iii) Agenda-3: Future plan/schedule of EVAP Project, and (iv) Discussion session. He then gave the floor to Ms. Ritsuko Sakamoto.

Ms. Ritsuko Sakamoto, Senior Representative of JICA Palestine Office firstly welcomed all participants as well as appreciated giving an opportunity to participate in the JCC meeting and MOA's strong commitment, cooperation and counterparts' deep involvement in the project activities. Ms. Sakamoto gave her impression on the project activities as follows: i) the project activities have been continuously progressed since the 6th JCC, ii) the EVAP package activities have adopted a tailor-made approach based on needs of both male and female farmers; and iii) it was impressive that the results of the endline survey showed increase in farmers' profits by 46.1% for last 2 years through EVAP extension activities. She repeated her appreciation for initiatives of MOA particularly GDoERD and expectation that counterparts of MOA and JICA project team would continue working cooperatively to extend EVAP activities to other areas of WB. She lastly explained current status of procurement of eight cars that they

were still under procedures (bidding of delivery and custom exemption, etc.) and would be delivered hopefully before March 2020.

Mr. Amjad Salah concluded the opening session and gave the floor to Mr. Amin, EVAP team member to play with explanation a comprehensive video clip on EVAP progress over past six months.

PRESENTATIONS

Mr. Amin ABU-ALSOUD, Extension and Farm Management Expert, presented a comprehensive video clip on the EVAP-2 field activities conducted between March 2019 and August 2019. He provided a brief explanation while displaying the video consequent sections for participants to grasp EVAP-2 field activities. The video helped the participants to have real images about the activities and the efforts made by the project team and counterparts.

Mr. Tomoki Nakamura, Chief Advisor made two main presentations on the (i) Project Progress (March 2019- August 2019) and (ii) Project Plan/Schedule (From September 2019). The first presentation covered the following major activities: (i) Progress of EVAP2 activities for the 3rd cycle farmer groups (Salfit, Ramallah, and Jerusalem); (ii) Technical trainings for the 2nd and 3rd cycle farmer groups; (iii) Capacity development of MOA and DOA staff. The second presentation covered plan and schedule of the project activities for the period from September 2019 to September 2021 including EVAP extension activities for the 4th cycle, endline assessment for the 2nd cycle and training program in Japan.

Mr. Salaheddin Al-Baba, Director General of GDoERD, made presentation on the progress of the 2nd and 3rd rounds of EVAP EP by the MOA. The presentation included issues related to purpose of application of EVAP EP, target DOAs, target subsectors, number of target farmer groups by DOA (particularly female groups), timeline of EVAP EP implementation, involved extension personnel, means of transportations, establishment of petty cash fund at DOAs level, budget allocation, actual disbursement, and progress in EVAP EP activities by the 1st and 2nd and 3rd cycle DOAs themselves. Mr. Salaheddin lastly confirmed the MOA's commitments towards the sustainable application of EVAP EP by the target DOAs.

DISCUSSION AND FEEDBACK

Mr. Amjad Salah appreciated the presentations and the progress and achievements of EVAP-2 and moved to the discussion session as per the meeting agenda. The following table summarizes the participants' feedback, comments and responses:

No.	Topics	Comments/Clarification	Reply or Actions to be taken
1.	The 5th cycle DOAs	Mr. Salaheddin Al-Baba: Consideration of implementing EVAP EP activities for Gaza Strip (GS) as the 5th cycle at summer season next year 2020 is requested.	MOA Counterparts/Mr. Amjad: Implementation of EVAP EP fully depends on the dominant political situation in Gaza Strip (GS). By the end of this year, the MOA will update the lists of extension staff and counterparts, and appoint new staff in Gaza, in consideration of proper communication way with Gaza for future implementation of EVAP extension activities.
2.	Evaluation of the rounds of EVAP EP by the MOA	Mr. Firas Farsakh: It is quite important to evaluate the 2nd round activities of EVAP EP by the MOA in order to assess performance of trained extension staff of MOA/DOA and the results a for target farmers. The results of EVAP EP activities carried out by JICA team could be a benchmark and references for this evaluation. Its main purpose is to make sure that the capacity of extension staff has been improved without biased manner.	MOA counterparts: Mr. Amjad Salah fully agreed with Mr. Firas 'opinion. Any bias in the performance assessment of extension staff shall be avoided. The M&E Department of MOA could be involved with this assessment, however, a proper approach shall be examined within the MOA. EVAP-2 Team: Assessment of EVAP extension activities was done at Step 7 of EVAP EP by concerned DOA extension agents who received guidance from EVAP-2 team. The DOA extension agents are regarded as the right persons for undertaking this assessment in terms of learning significant issues through this process (e.g. farmers' technical concerns, their profitability, improve their methods, necessary action to be taken) and sustaining implementing the Step 7 of EVAP EP in the future.
3.	Delay in the disbursement procedures for the 2nd round activities by the Government of Palestine	Mr. Amjad Salah: Why payments and disbursement are slow and delayed for the 2nd round activities of EVAP EP? What are the main reasons?	MOA counterparts: Mr. Salaheddin explained the reasons for delay in disbursement: (i) DOAs and related companies did not provide GDoF with all necessary documents in accordance with the instructions of the MOF. (ii) The petty cash system was upgraded and cheques of 3,000 NIS were handed over to DOAs just recently (June 2019).

No.	Topics	Comments/Clarification	Reply or Actions to be taken
			(iii) Disbursed amounts and timings of DOAs vary because of their different crop seasons. More disbursements are expected to be occurred after September of 2019. Mr. Salaheddin promised to follow these issues with DOAs and GDoF to introduce countermeasures.
4.	JICA's projects/ activities in Gaza Strip	Mr. Issam Nofal: Is JICA Palestine Office able to implement projects/activities in Gaza Strip?	JICA Palestine Office: JICA has a field office in Gaza with Palestinian staff and ongoing projects. Japanese staff and experts visit to Gaza from time-to-time. EVAP-2 Team: Mr. Amin was dispatched to Gaza on behalf of the EVAP-2 Team in 2016 and 2017. In cooperation with assigned counterparts of Khanyounis DOA, two target farmer groups were selected and Step-1 of EVAP EP successfully conducted. However, activities after Step-2 were suspended due to political situation of Gaza.
5.	More cooperation with technical committees	Mr. Issam Nofal: He requested that the project should have more cooperation with technical committees.	EVAP-2 Team: Based on needs of extension staff and target farmer groups, the project has cooperated with technical departments of MOA such as NARC, GD of Vet, GD of Plant Protection, and marketing, etc.
6.	Gaps between the cycles and the rounds	Mr. Firas Farsakh: If there is gap period between the cycle activities done by EVAP team and those of 2nd round by the MOA, the trained counterparts may forget what they have learned and acquired from the cycle activities of EVAP EP.	EVAP-2 Team: There was basically no gap period between the completion of the cycle activities and the starting of the round activities by the target DOAs.
7.	Working with individual farmers	Mr. Firas Farsakh: It is recommended to work with individual farmers and offer opportunities of training and extension activities for them.	EVAP-2 Team and MOA: The project applies open access strategy to maximise the number of beneficiary farmers. Thus, farmers could participate in some of EVAP activities such as tours, market visits, or technical trainings if they are interested in although they are not members of the target groups or have

No.	Topics	Comments/Clarification	Reply or Actions to be taken
			not participated in previous activities. On the other hand, it is quite important to have core member farmers who are willing to attend whole activities of EVAP EP for attaining good results of EVAP extension activities.
8.	Good results of endline survey of the 1st cycle	JICA Palestine Office: It should be noted that practices of female and male farmers for using information on lands, equipment, machines have been significantly changed by the EVAP activities. It is good achievement meaning that farmers' practices could still be changed.	MOA counterparts: While it is somehow difficult to change farmers' mentality, farmers' practices could consequently be changed by enhancing their knowledge and experiences. There are many cases that women are more engaged in farming activities than men. Such a good example is Dier Ballout Women Farmers Group targeted by the 3rd cycle whose members are very active and engaged in farm activities. EVAP extension activities have paid attentions to these female farmers. EVAP-2 team: Since husbands of many members of Albadan Women Group (targeted by the 1st cycle) are engaged in outside non-agricultural activities, the project considered providing technical training to women farmers to enable them to perform the necessary tasks in the field (e.g training on sprayers' use and maintenance).

WRAP-UP SESSION:

After receiving and responding to all comments and feedback from JCC members, Mr. Amjad Salah concluded the meeting with confirming that the achievements and obtained results are excellent so far as well as explaining that more detailed view on the project achievements could be obtained from the field visits than what presented by the video.

He again appreciated the efforts of JICA project team as well as their counterparts from the MOA (particularly those from GDoERD and related DOAs). He added that he has been seeing JICA project team going to the field every day in the early morning which is a good indication about their effectiveness, seriousness and commitments to the project plan and activities.

Lastly, Mr. Amjad, reminded Mr. Salaheddin to take proper countermeasures for slow and late disbursements for EVAP extension activities by MOA.

The general consensus and approval were successfully obtained in the meeting on the following issues:

- Project progress (March 2019 – August 2019).
- Progress of the application of EVAP EP by the MOA in the 2nd and 3rd rounds.
- Project plan and its schedule (from September 2019) including the target DOAs and farmer groups for the 4th cycle (Two farmer groups for Bethlehem, one farmer group each for Hebron, South Hebron, Yatta and North Hebron) and selection procedure and criteria of target farmer groups.

Attachment 1: List of Attendees
Attachment 2: Presentation Materials

Attachment: List of Attendees

Affiliation	Title	Name
Ministry of Agriculture (MOA)	Assistant Deputy Minister for Technical affaires, MOA, Assistant Deputy Minister, Chairperson of JCC	Mr. Amjad Salah
	General Directorate of Agriculture Extension and Rural Development, MOA, Director General.	Mr. Salaheddin Al-Baba
	General Directorate of Agricultural Water and Irrigation, MOA, Director General	Mr. Issam Nofal
	General Directorate of Planning and Policies, MOA, Director General	Mr. Hasan Ashqar
	Minister Office, MOA, Director General	Ms. Nadia Ashhab
	General Directorate of Agriculture Extension and Rural Development, Mass Media Department MOA	Ms. Fatima Ajouly
	GD of International Relation, Public Relation Department, MOA	Ms. Hanan Hijaji
Ministry of Finance and Planning (MOFP)	General Directorate of International Relations, Asia Department Officer.	Mr. Firas Farsakh
	General Directorate of International Relations, Asia Department, Assistant.	Ms. Hidaya Obaid
Japan International Cooperation Agency (JICA)	Senior Representative, JICA Palestine Office	Ms. Ritsuko Sakamoto
	Representative, JICA Palestine Office	Ms. Tomomi Hirata
	Chief Program Officer, JICA Palestine Office	Dr. Abdul Naser Makky
EVAP-2 Team	Chief Advisor/ Expert for Farm Management (1)/ Agricultural Policy/ Horticulture	Mr. Tomoki Nakamura
	Expert for Gender/ Farmer Organization	Ms. Junko Saikawa
	Farm Management and Extension Expert	Mr. Amin ABU-ALSOUD
	Interpreter	Ms. Rawan Marmash

Attachment 2-2

MINUTES OF 8th JOINT COORDINATING COMMITTEE MEETING

OF

THE PROJECT ON IMPROVED EXTENSION

FOR VALUE-ADDED AGRICULTURE (EVAP PHASE 2)

AMONG

AUTHORITIES CONCERNED OF PALESTINIAN AUTHORITY

AND

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Ramallah and Tokyo, 14th December 2020

Amjad Almughayyar

Amjad Salah
Assistant Deputy Minister for Technical Affaires
Ministry of Agriculture (MOA)
Chairperson of JCC (EVAP Phase 2)

阿部俊哉

Toshiya Abe
Chief Representative
Palestine Office
Japan International Cooperation Agency (JICA)

Firas Farsakh
Representative
Ministry of Finance (MOF)

中村友紀

Tomoki Nakamura
Chief Adviser of the JICA Project Team
(EVAP Phase 2)

Amjad Almughayyar

Minutes of the 8th JCC Meeting of the Project on Improved Extension for Value-added Agriculture (EVAP Phase 2)

Date : 14th December 2020
Venue : Online meeting via Zoom App. between Ramallah and Tokyo
Time : 10:00 - 10:45 am (Palestine Time)
Participants : As per the Attachment: List of Attendees

OPENING ADDRESSES

The presentation of video clip on the field activities was skipped due to the limited meeting time and weak/unstable internet connection.

Mr. Tomoki Nakamura, Chief Advisor of EVAP2, explained briefly the meeting agenda by sharing it with participants on the screen.

Mr. Salaheddin Al-Baba welcomed everybody on behalf of the chairperson of the JCC (Mr. Amjad Salah) and H.E. the Minister of Agriculture. He also apologised of Mr. Amjad Salah's absence to this important meeting. Mr. Salaheddin confirmed that implementation of EVAP activities has been successfully continued in paying attention to the health protocols even under COVID-19 affected situation, however, extension of the project period till February 2022 was agreed among MOA, EVAP Team and JICA. Considering that this was the first-time zoom meeting, he stopped his opening remark with thanking again all for their attendance and requesting them to have more discussion in in the discussion and wrap-up session. Then, he gave the floor for Mr. Toshiya Abe.

Mr. Toshiya Abe, Chief Representative of JICA Palestine Office, greeted with thanks to all participants. He expressed his pleasure to participate in the 8th JCC meeting which was originally scheduled on March this year 2020 however, postponed due to pandemic of COVID-19. Mr. Abe appreciated the great efforts made by the MOA in continuing the project activities for Palestinian farmers under the situation that COVID-19 has given large impacts on the West Bank. He regarded the effective feeding program and the artificial insemination (AI) method as one of the largest progresses since last JCC meeting as they were very effective to Palestinian agriculture. He explained the procurement situation of two minibuses requested by the MOA that JICA examines its possibility of procurement and would inform the MOA of the result shortly. He added his hope that the technical capabilities of all farmers in West Bank would be raised through conducting study tours and sharing technologies among the farmers. He concluded his opening remark with thanking all participants and wishing active discussion for today JCC meeting.

PRESENTATIONS

Mr. Tomoki Nakamura, Chief Advisor made two main presentations as follows:

(1) The first presentation, Project Progress (March 2020- December 2020):
It covered the following major activities: (i) Progress of EVAP2 activities for the 4th cycle farmer groups (Bethlehem, North Hebron, Hebron, South Hebron and Yatta); (ii) Capacity development of MOA and DOA staff; and (iii) Verification/introduction of appropriate technologies.

(2) The second presentation, Project Plan/Schedule (From January 2021- February 2022):
It covered the plan and schedule of the project activities for the period from January 2020 to February 2022 including the following:

- Extension of the project period
- Revised schedule of the EVAP2 activities (technical training for the 4th cycle farmer groups, profitability assessment of the 3rd cycle, terminal evaluation of the project, study tour program to Japan).
- Procurement of Minibuses for the extension activities
- Issues regarding the implementation of EVAP-2 in Gaza Strip

COMMENTS, DISCUSSION AND FEEDBACK

Following comments, discussion and feedback were raised during the discussion session:

<Mr. Salaheddin Al-baba>

- I appreciate the presentations on the progress which could summarize the project's activities conducted in 2020. I also appreciate very much efforts of the EVAP Team supporting from both Japan and EVAP office in Ramallah. EVAP Team did their jobs very well even during the previous period affected by the current pandemic of COVID-19. We faced some problems but solved them with supports from EVAP Team (Mr. Amin) and could proceed ahead with our activities even with some delay.
- Regarding the 5th cycle, we must consider using the e-Guidelines of EVAP EP (a kind of e-extension services) and I think it is a good opportunity to use and share it with our counterparts in Gaza Strip. We must prepare with Mr. Amin and with EVAP Team in Tokyo what can be done for Gaza Strip during the upcoming months in 2021 such as use of online training (for the TOT sessions) to be delivered prior to each step of the EVAP EP.
- Under JICA Regional Cooperation Program, we have started many demo farms and will add new ones on "small ruminants". Thus, we need a new vehicle for the extension staff of GDoERD to follow-up the necessary extension field works including these demo farms. The present car handed over by EVAP-1 is already too old and needs frequent maintenance which interrupts our field works.
- Due to the current pandemic of COVID-19 and shortage of government budget, we unfortunately couldn't implement the 2nd round activities of EVAP EP using the government budget as

Amjad Ahmaghayyar

scheduled. In order to fulfil our commitments, we recently prepared an emergency extension plan for 2021 with targeting some farmer groups and using the e-Guidelines of EVAP EP. Two minibuses to be procured would greatly contribute to carrying out these activities such as study tours, market visits and other field extension activities. Then, for the purpose of monitoring these activities, GDoERD needs a new car. Or, we would like to use one of EVAP-2 project vehicles under current emergency.

<Mr. Tomoki Nakamura, EVAP-2 Team Leader>

- We will consider the request for a new vehicle; however, the decision depends on the project's plan and the discussion with JICA on this issue.

<Mr. Sunao Hachiri, Representative of JICA Palestine Office>

- JICA Palestine Office are proceeding the procurement for the two minibuses. Their procurement may be delayed a little, but we will do our best.
- Regarding the request for additional new vehicle, we would like to take note on it and collect further information about it.

<Mr. Firas Farsakh>

- It is very commendable that the EVAP activities have continued even during the difficult circumstances. I have followed the EVAP Facebook and found that it is updated every few days. I also appreciate the staff of EVAP Team and MOA/DOA staff for keeping EVAP works at present even under these difficult circumstances.
- Situation on tax refund by GoI is almost back to normal, and should return as before within the next month.

WRAP-UP SESSION:

After discussion session, Mr. Salaheddin Al-Baba concluded the meeting with confirming great achievements and obtained results despite such difficult situations for last 8 months as caused by COVID-19 pandemic and the Israeli decision of not transferring the taxes refund to the Palestinian side.

Mr. Salaheddin again appreciated the efforts of JICA EVAP-2 Team and MOA/DOA counterparts who did their jobs despite the current COVID-19 pandemic situation. He expressed his wish that i) new technologies would be applied for us to handle the current difficult situation, implementation EVAP EP and to monitor the field activities in the West Bank districts more easily; and ii) trainings on the EVAP EP would be organized and the technologies would be promoted for the counterparts in the Gaza Strip. He appreciated again that JICA started procurement procedure of two minibuses which will support the extension services.

Amjad Ahmaghayyar

Lastly, Mr. Salaheddin Al-Baba and Mr. Tomoki Nakamura, hoped that the next JCC meeting would be held face-to-face with more active participation in the office in Ramallah next year.

The general consensus and approval were successfully obtained in the meeting on the following issues:

(1) Project progress (March 2020 – December 2020).

(2) Project plan and its schedule (from December 2020- February 2022) including the following:

- Procurement of minibuses for extension activities
- The necessary arrangements for the implementation of the 5th cycle of EVAP EP in Gaza Strip

(3) The extension of the project period due to the current pandemic of COVID-19

(4) Profitability Assessment for the 3rd cycle DOAs

(5) The 2nd training in Japan (Study tour)

(6) Terminal Project evaluation by JICA-HQ Tokyo.

(7) Holding final seminar

Attachment 1: List of Attendees

Amjad Alomghayyar

Attachment 1: List of Attendees

Affiliation	Title	Name
Ministry of Agriculture (MOA)	General Directorate of Agriculture Extension and Rural Development, MOA, Director General.	Mr. Salaheddin Al-Baba
	General Directorate of Agricultural Water and Irrigation, MOA, Acting Director General	Mr. Yacoub Kilani
	General Directorate of Agricultural Water and Irrigation, MOA, Director of Water for Irrigation Department	Mr. Mahmoud Barham
Ministry of Finance (MOF)	General Directorate of International Relations, Asia Department Officer.	Mr. Firas Farsakh
Japan International Cooperation Agency (JICA)	Chief Representative, JICA Palestine Office	Mr. Toshiya Abe
	Representative, JICA Palestine Office	Mr. Sunao Hachiri
	Chief Program Officer, JICA Palestine Office	Dr. Abdul Naser Makky
EVAP-2 Team	Chief Advisor/ Expert for Farm Management (1)/ Agricultural Policy/ Horticulture	Mr. Tomoki Nakamura
	Expert for Gender/ Farmer Organization	Ms. Junko Saikawa
	Farm Management and Extension Expert	Mr. Amin ABU-ALSOUD

Amjad Alomghayyar

Attachment 2-3

MINUTES OF 9th JOINT COORDINATING COMMITTEE MEETING

OF

THE PROJECT ON IMPROVED EXTENSION

FOR VALUE-ADDED AGRICULTURE (EVAP PHASE 2)

AMONG

AUTHORITIES CONCERNED OF PALESTINIAN AUTHORITY

AND

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Ramallah, 7th October 2021

Amjad Almughayyar 14, 10, 2021

Amjad Salah
Assistant Deputy Minister for Technical Affaires
Ministry of Agriculture (MOA)
Chairperson of JCC (EVAP Phase 2)

Toshiya Abe
Chief Representative
Palestine Office
Japan International Cooperation Agency (JICA)

Laila Sbaih
Director General of International Relations and Projects, Representative
Ministry of Finance (MOF)

Tomoki Nakamura
Chief Adviser of the JICA Project Team
(EVAP Phase 2)

Minutes of the 9th JCC Meeting of the Project on Improved Extension for Value-added Agriculture (EVAP Phase 2)

Date : 7th October 2021
Venue : The meeting hall at the newest MOA-HQ building, Ramallah
Time : 11:00 - 13:00
Participants : As per the Attachment: List of Attendees

OPENING ADDRESSES

Mr. Amjad Salah, Assistant Deputy Minister for Technical Affaires, Chairperson of JCC, welcomed all participants whilst being glad to meet at this JCC after series of virtual meetings. He especially welcomed the attendance of Mr. Abe Toshiya, Chief Representative of JICA Palestine Office. He acknowledged hard work and tremendous efforts of the joint terminal evaluation team. He proposed participants to firstly listen to what results and recommendations are by the joint terminal evaluation team, then think what to do to deal with the recommendations for improving EVAP-2 project. He hoped that Palestinian evaluation team members could give guidance for follow-up actions responding to the recommendations. He extended his sincere thanks and appreciation to JICA for its continuous supports then he gave the floor to Mr. Abe.

Mr. Abe Toshiya, Chief Representative of JICA Palestine Office, greeted with thanks to all participants. He expressed his pleasure to participate in the 9th JCC meeting in person. He described EVAP-2 project as follows:

- It started in 2016 and would end within half a year.
- EVAP-2 project can be regarded as one of the most successful JICA projects in Palestine.
- JICA Palestine Office has heard various project activities through implementing EVAP Extension Package and their impacts on capacity development of MOA/DOA officers and on farming activities of target farmers in different sectors even during the pandemic of COVID-19.

Mr. Abe appreciated the cooperation and efforts of the Palestinian government for continuing EVAP-2 project activities despite difficult situation for last 2 years such as lockdown by COVID-19, air bombing on Gaza Strip by Israel, shortage of governmental budget, etc. Since the main agenda of this JCC was feedback of joint termination evaluation results, he hoped that EVAP-2 project would be terminated safely in consideration of these evaluation results and effects of the project would be continued for contributing to sustainable development of Palestine agriculture.

PRESENTATIONS

(1). Video presentations: Mr. Amin ABU-ALSOUD, EVAP-2 Team member, showed videos on the project field activities and the field interviews conducted by the joint terminal evaluation team. Mr. Amin provided explanation in Arabic while Mr. Nakamura, EVAP-2 Team Leader, provided interpretation in Japanese. The participants could get real images about the project field activities.

(2). Introduction note: Dr. Jiro Aikawa, Leader of the Joint Terminal Evaluation Team, showed his honour to attend the JCC to present the terminal evaluation results. He highly appreciated effectiveness of the project activities particularly for target farmers. He thanked to Palestinian terminal evaluation members for their great involvement as well as Palestinian C/Ps for taking time to make the necessary arrangements and supports for this terminal evaluation.

(3). Presentation on evaluation results: Dr. Kumiko Shuto, terminal evaluation team member, made a very good and comprehensive presentation on outline of terminal evaluation study (evaluation team members, study schedule, EVAP-2 outline, and EVAP Extension Package) and evaluation results (achievements of outputs and project purpose, impactful activities, gender sensitive farmer training, and evaluation results by 6 evaluation criteria) by showing PowerPoint slides (see Attachment 2).

(4). Presentation on recommendations: Dr. Aikawa firstly congratulated that EVAP-2 project was one of the most successful projects compared with ones in other countries he had been involved in their evaluation. Based on the evaluation results, he concluded that EVAP-2 project could be terminated in February 2022 as scheduled. He then presented details of recommendations to EVAP-2 Team, MOA and DOAs by showing PowerPoint slides (see Attachment 2).

(5). Presentation on EVAP-2 plan/schedule: Mr. Nakamura presented planned project activities from October 2021 to January 2022, mainly about i) Implementation of EVAP Extension Package in Gaza Strip and ii) Online virtual study tour to Japan (instead of C/P training in Japan) (see Attachment 3). He remarked that EVAP-2 Team would make follow-up actions for recommendations by the joint terminal evaluation team.

DISCUSSIONS AND FEEDBACKS

Mr. Hasan Ashqar, Director General of Planning and Policy, made following comments and recommendations:

(i). MOA staff are involved in internal evaluation of projects and programs which are fully funded by the government. However, participation of MOA staff in such comprehensive evaluation process of project activities is a new experience.

(ii). Regarding handing over the task of EVAP-2 Team to MOA C/Ps, setting one-to-one C/P system could be proposed for keeping sustainability.

(iii). For ensuring financial sustainability, special and clear budget line for the EVAP EP and the extension services should be set in the MOA annual budget.

Mr. Amjad Salah agreed on above (iii) regarding budget line.

Mr. Salaheddin Al-Baba, General Director of Extension and Rural Development, Project Manager, extended his sincere thanks and appreciation to JICA, terminal evaluation team, MOA staff and EVAP-

2 Team. He expressed his satisfaction with the evaluation results with obtaining high marks for all steps of the project activities, which were confirmed by Dr. Aikawa, a founder of SHEP approach. He then promised that he and his staff together with EVAP-2 Team would take necessary actions for dealing with recommendations by the terminal evaluation team until the project end in February 2022.

Regarding implementation of EVAP Extension Package in Gaza Strip, Mr. Salaheddin confirmed that preparation and necessary arrangements were progressed over past three months and actual implementation would hopefully be started soon. Online meetings and trainings via Zoom app would be organized until the situation in GS is improved.

Mr. Samer Titi, Director of Planning Department, Head of Gender Unit, requested that EVAP activities should have more coordination and cooperation with Gender Unit in the future.

Mr. Hassan Ashqar and Ms. Ibtisam Abu Al-Haija, Director of Drought and Climate Change Monitoring Department requested more involvement in the project activities (mainly in the TOT sessions) as well as to have a frequent coordination and technical meetings between GDoERD and other related General Directorates of MOA.

Mr. Amjad Salah confirmed that budget line for extension activities including implementation of EVAP should be clarified for ensuring sustainability by improving internal coordination and procedures in MOA. He also agreed that recommendations by the Joint terminal evaluation team would be followed up by EVAP-2 Team together with MOA.

WRAP-UP SESSION

After discussion session, Mr. Amjad Salah concluded the meeting and extended his sincere thanks and appreciation to all participants.

The Joint Terminal Evaluation Report on EVAP-2 signed by Dr. Aikawa and Mr. Hassan Ashqar was submitted to Mr. Amjat Salah as Chairperson of JCC.

The general consensus and approval were successfully obtained in the JCC meeting on the following issues:

(1) The Joint Terminal Evaluation Report on EVAP-2: Evaluation Results and Recommendations

(2) Project plan and schedule (from October 2021- February 2022):

- Implementation of EVAP Extension Package in Gaza Strip.
- Online virtual study tour to Japan.
- Follow-up actions for recommendations by the joint terminal evaluation team.

Attachment 1: List of Attendees

Attachment 2: Presentation Materials on Evaluation Results

Attachment 3: Presentation Materials on Project Plan and Schedule

Attachment 1: List of Attendees

Affiliation	Title	Name
Ministry of Agriculture (MOA)	Assistant Deputy Minister for Technical Affairs, MOA, Project Director, Chairperson of JCC	Mr. Amjad Salah
	Director General, General Directorate of Agriculture Extension and Rural Development (GDoERD), MOA, Project Manager.	Mr. Salaheddin Al-Baba
	Director of Drought and Climate Change Monitoring Department, General Directorate of Agricultural Water and Irrigation, MOA	Ms. Ibtisam Abu Al-Haija
	Director General, National Agricultural Research Centre (NARC), MOA	Dr. Ziad Fadda
Ministry of Finance (MOF)	General Directorate of International Relations, Asia Department Officer, Representative	Ms. Hidaya Obaid
Joint Terminal Evaluation Team/ JICA	Terminal Evaluation Team Leader, Senior Advisor, JICA-HQ	Dr. Jiro Aikawa
	Team member, Economic Development Department, JICA-HQ	Dr. Kumiko Shuto
	Team member, Evaluation & Analysis, Consultant	Ms. Momo Fukushima
Joint Terminal Evaluation Team/ MOA	Team member, Director General of GDoPP, MOA-HQ	Mr. Hassan Ashqar
	Team member, Director of Planning and Policy Department, GDoPP, Gender Unit, MOA	Mr. Samer Titi
	Team member, Director of Monitoring and Evaluation Department, GDoPP, MOA	Mr. Ali Alqam
Japan International Cooperation Agency (JICA)	Chief Representative, JICA Palestine Office	Mr. Toshiya Abe
	Representative, JICA Palestine Office	Mr. Sunao Hachiri
	Chief Program Officer, JICA Palestine Office	Ms. Nawras Mansour
EVAP-2 Team	Chief Advisor/ Expert for Farm Management (1)/ Agricultural Policy/ Horticulture	Mr. Tomoki Nakamura
	Expert for Gender/ Farmer Organization	Ms. Junko Saikawa
	Farm Management and Extension Expert	Mr. Amin ABU-ALSOUD

Attachment 2-4

Basic Survey on Agricultural Extension in Palestine

(Prepared in February 2017 / Updated in July 2021)

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1. Agricultural extension related policies

The relevant policies of the Palestinian Government related to the agricultural extension during the implementation period of EVAP-2 (August 2016-February 2022) are as follows.

- Palestinian National Agricultural Extension Strategy (PNAES) 2016-2019
（enacted since March 2016）
- National Agricultural Sector Strategy (NASS) (2017-2022) "Resilience and Sustainable Development"
（enacted since November 2016）

The Palestinian National Agricultural Extension Strategy (PNAES) is a policy guideline for the Palestinian Government's agricultural extension. The deadline for the policy is 2019, but the policy after that has not been enacted yet, and it will be effective in 2021 as well[1]. The National Agricultural Sector Strategy (NASS) (2017-2022) is the basic guideline for the Palestinian government's agricultural policy and is positioned as a higher-level policy of PNAES. The outline of each policy is as follows. The underlined parts are items related to EVAP-2 and items to be noted.

1.1 Palestinian National Agricultural Extension Strategy (PNAES) 2016-2019

This Palestinian National Agricultural Extension Strategy (PNAES) is aligned with national development plan and strategies, National Agri culture Sector Strategy “Resilience and Development, 2014-2016”, in particular. And also build on already existing relevant projects and programs,

The Vision for Extension Services is <u>to provide relevant, up to date, and effective extension services to attain higher productivity, increased incomes</u>, cementing the bonds and sovereignty of Palestinians over their land and improved standard of living.

The overall objective of the extension services is to empower the farmers and farmer groups <u>through sharing of information and imparting knowledge and skills</u> in order to increase, diversify, and intensify agricultural production, under conditions of economic profitability while preserving the environment. To encourage the various partners and agencies to provide efficient and effective services, the guiding principles are,



- Participatory extension
- Multi approach and multi method
- Demand driven and market-oriented extension
- Process and result oriented extension
- Multi actor extension etc.

(1) Specific objectives

To achieve the strategic overall goal, it should realize the following specific objectives:

1) To improve the agricultural extension capacity building and institutional aspects

It is recognized that agriculture is a major part of rural development process that includes formation of farmer groups, formulation of enterprises and capacity development, building linkages between farmers and

[1] Concirmed with GDoERD in June 2021.

other agencies, and institutional development to support the bargaining position of farmers. The EVAP extension package is a participatory approach and emphasizes on the following elements, (i) target groups of farmers, (ii) demand-driven, (iii) market-oriented and (iv) consistent with technical support throughout the gestation period. This concept highlights provision of services that meet needs and priorities of farmers in the context of changing domestic and international markets to assist farmer's income improvements and stabilization.

Non-participatory approach should be replaced by an extension planning process which takes place through situation analysis, data analysis, problem identification and prioritizing, to state the objectives as pre-conditions for developing the extension program for implementation with farmer participation at all stages. This will enhance extension effectiveness, consequently, yield a better impact on the agriculture sector as a whole. The participatory approach in planning process would ensure that the rendered extension services are responsive to actual needs of farmers and suits their local conditions.

Extension is no longer a matter of simply providing information to farmers. It is generally acknowledged that extension agents need skills in how to facilitate the discussions among different stakeholders in natural resource management and market supply chains. They should shift from lecturing to empowering farmers themselves to learn about how to manage their farms.

Agricultural extension at the national level comes under the purview of the General Directorate of Extension and Rural Development (GDoERD). Agricultural extension services are implemented at the field level by 19 Directorates of Agriculture (DOAs) (21 Direcorates as of June 2021) located in the districts where extension agents are attached. The MOA established the agricultural law (Law No-2/2003). It is now necessary that these laws and by-laws are effectively reconciled with other national laws that relate to agriculture, water, food safety, and environmental issues. The MOA will continue to be actively involved with international legislation related to the agriculture, food safety, environmental protection and sustainable development.

The public extension service is financed through MOA own financial resources and donor contributions. Large fluctuations in the size of this fund have caused the problems of financial continuity and disbursement for agricultural extension. The goal is to increase the current annual spending on agricultural extension as much as possible by 2018, in order to be in accordance with international standards, which often allocate 1.0 % of agricultural GDP.

The main focus of the extension agents operating at the farm level should be placed on provision of extension services to the farmers. However, they are often tasked with other unrelated duties which tended to diffuse work performance. The MOA should tackle this issue by setting-in-place a proper mechanism through which extension agents are involved in delivering extension services to farmers and in activities of extension-based agricultural projects.

Frontline extension agents work under difficult conditions, catering to demands of the farm community and the DOA. They often lack adequate offices space, transport and training materials. The MOA should consider using a merit-based promotion system and other incentives such as professional training, equipment provision etc. Maintaining a motivated team of extension agents is necessary to ensure their optimal

contribution to the successful delivery of extension services.

The agricultural extension strategy recognizes that different agencies may work in the same locality or fields. The roles and responsibilities of all the concerned organizations should be clarified in order to ensure effective implementation of the interventions proposed in the present extension strategies. Various agencies including NGOs, universities and private companies are engaged in extension activities in the WB&GS, however, lack of coordination among the extension agencies is resulting in a certain degree of pluralism. Therefore, it is vital that a coordination mechanism is established on field extension activities conducted by different extension service providers.

The results of research and new technologies are useful for extension agents to provide the correct information so that farmers take proper farm decisions. Such information can be stored and made available through ICT to facilitate planning. Currently, DOA offices have neither computer databases nor available information. The innovations in ICT industry offers wider opportunities for more people to access information, both local and global. Many benefits derive from linking new technologies with conventional extension communication approaches.

2) To promote and consolidate research-extension-farmer linkages

A close working relationship between research and extension is needed to deliver a significant and sustainable impact on agriculture. However, applied/adaptive research activities of NARC in experimental stations and farmers' fields are limited due to shortage of human resources, laboratory facilities and operational funds. Extension, serving as a facilitator or as a partner in rural development initiatives, offers an opportunity to establish a good relationship with research. For ensuring better coordination between applied/adaptive research, extension, farmers and other local stakeholders, a formal mechanism should be established to realize the followings; (i) assessment of demand and availability of technology, (ii) analysis of the best practices in technology transfer based on demand, (iii) work sessions with farmers to help select and adopt new technologies to suit local needs.

3) To improve the extension outreach & effectiveness of extension approaches and methods

The effectiveness of agricultural extension services and its outreach should be improved through knowledge and skills development by training, institutional strengthening and logistical support. The majority of extension approaches used in Palestine was based on a top-down model in which the farmer was only involved at the behest of the extension agent. Farmer was often perceived as a passive recipient, incapable of identifying his needs and developing the appropriate solutions. There is need to shift from the traditional relationship between farmers and extension agents to one that thrive on the involvement and participation of farmers. To meet this challenge, the MOA extension agents need to prioritize their interventions, methodological approaches and selection of efficient decision support tools based on the needs of farmers under specific environmental and socioeconomic conditions.

In order to increase the extension contacts, coverage and utilization of various methods and approaches, the MOA in collaboration with other partners as well as donor agencies should allocate the adequate operational funds and necessary equipment, tools, transport facilities and training materials to extension

agents. The extension agents should select appropriate methods in order to meet specific extension objectives with various categories of farmers. Fifteen FFS were established in during 2004-2010 in 5 districts under Regional IPM program. The FFS can enhance participatory learning process promoting participatory planning, monitoring and evaluation.

The MOA should take a quick step to correct the situation, for example, through possible recruitment and placement of more extension agents on contract basis. MOA should also consider re-positioning of SMS/extension agents, who are presently attached to head offices of some DOAs, as frontline field extension agents depending on specific needs such as level of extension activity, number of farmers to serve and extent of cultivated area. The extension agents require training material including a full set of technology guidelines and manuals.

4) To provide demand-driven and market-oriented extension services, along with integrated environmental support to all categories of farmers

Strengthening of value-chain requires facilitation for effective communication, establishment of linkages, promotion of interactive learning, and establishment of partnerships among the stakeholders. Extension plays a role in supporting market-orientation by encouraging productive dialogues among the players in the value-chain to negotiate and build up the social capital. Market demands are changing rapidly and becoming more rigorous. To confront these challenges, producers and rural entrepreneurs ought to acquire and assess related information for which enhanced provision of market-oriented extension is essential. Good market-oriented extension services require looking beyond the current and available market opportunities and focus more on helping farmers to be better prepared to compete in potential new markets. Extension should meet the needs of various actors, not only farmers and farming. Extension should be concerned with the local economic development.

Services must be flexible enough to respond to the varied and changing demands of the small-scale farmers who are struggling to deal with overwhelming challenges to the continuation and future of their farming operation. Those who are vulnerable to climate and market uncertainty and variability need new forms of extension to help them to understand such risks and manage them. As part of this, extension services need to provide to information regarding weather change, market prices, quality standards, consumer demands and access to financial services.

It is important to enable the extension agents to offer high quality integrated extension support including farm management, production, credit and marketing for their target groups. It warrants that all members in different types of rural households to have access to the extension services. Majority of small-scale farmers operate at subsistence level where the farm activities cannot be describes as profitable. They are often dependent on alternate sources of income to balance the household expenses.

5) To assist farmers to make optimal use of their available resources, ensure access to food and income and enable farmers to mitigate and adapt to new climate challenges

The climate change is an area where extension currently has little involvement but the needs and expectations for the future are great. The first is to intensify and promote food and agricultural production, support land development activities and reduce food losses to ensure food availability at reasonable prices.

The second is to encourage the creation of a line of credit for small and large farmers and, enhance opportunities of livelihood to ensure entitlements and access to food. The national policies on adaptation and mitigation to climate change are appropriately communicated and adapted by farmers to reflect their conditions and concerns.

6) To provide tailor-made, more frequent and sustainable extension services to rural women and their cooperatives

Gender equity in extension services requires attention to gender roles in households, society, agriculture and rural development. They often prefer to concentrate on cottage industries, home gardening, petty trade and/or casual labour because these are sources of income that they can easily control. New methods in food industry on such as drying, freezing, pickling and dairy products manufacturing as well as aspects of home gardening will be introduced. Cultural constraints have made women feel more comfortable working with female extension agents rather than their male counterparts.

7) To strengthen the existing farmer organizations and mobilizing farmers into the groups

The policy and strategy are founded on the principle of mobilizing farmers into groups and promoting the active participation of farmers for formation of farmer organizations as the recipients of extension services. The extension agents in their turn should facilitate farmer groups/organizations to access credit from finance institutions and encourage bulk procurement of improved production inputs. They should also support grading, storage, value addition and collective selling of the farm produce, in addition, the extension agents will facilitate developing market links with other stakeholders in the market and value chains, researchers and access to specialized services providers.

8) To improve the ability of the Palestinian agricultural products to compete in local and external markets

The possibilities for the export of high values crops such as vegetables, herbs, grapes and olive oil to the markets of Arab countries and other countries are limited for many reasons. In addition to the restrictions imposed by Israel, the reasons include weak product competitiveness, inability to meet market requirements, high production and marketing costs, nonexistence of reliable local marketing/trading companies. The available post-harvest treatment facilities such as pre-cooling, grading and packing, cold storage and refrigerated transport are inadequate despite there were some recent efforts mainly for dates palm and herbs. It is necessary to train and upgrade the technical skills of farmers such as Global Good Agricultural Practice (GAP) certifications, farmers awareness regarding minimum chemicals applications and good post-harvest treatments. It is essential that the MOA should focus on the rehabilitation of destroyed agricultural facilities in GS.

9) To promote and support production of high value crops

Objective of extension is to help increase the income of farmers through introduction of new technologies and market options thereby contributing to local food security and sustainable production through diversification. All crop and animal products are targeted for promotion through (i) distribution of knowledge on high value crops to stimulate crop diversification, (ii) assessment and promotion of high value crops for

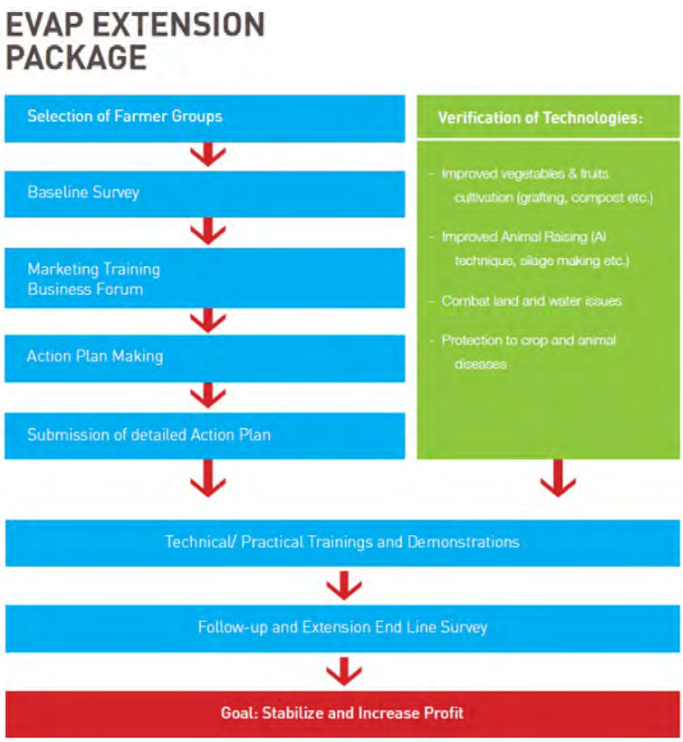
different agro-ecological zones for sustainable development and income generation, (iii) development of strategies and methods for introduction of diversified crops and (iv) support for publication and distribution of technology manuals on new crop production,

- **Roles of Different Actors in Implementing Extension Strategy**

Implementation of extension strategy requires active participation of different stakeholders including the Government, MOA, NARC, farmers' organizations, NGOs and civil society, private sector, banks and micro-finance institutions and higher agricultural education institutions. To guarantee effective implementation of the extension strategy, a logical framework was designed highlighting interventions needed to achieve the strategic goals, key performance indicators, monitoring, and budgets needed.

(2) Adoption of "EVAP Extension Package" as a National Extension Approach

Over past years, the MOA has realized the need to upgrade and empower agricultural extension services to reach the marginalized small and medium scale farmers, and to address new challenges on food security, marketing, environmental degradation, water scarcity and climate change.



It requires extension to play a dynamic role with a diversity of objectives which include linking farmers more effectively and responsively to domestic and international markets, enhancing crop diversification, coupling technology transfer with other services relating to input and output market, poverty reduction and environmental conversation, etc. It is recognized that agriculture is a major part of the wider field of rural development process that includes formation of farmer groups, formulation of enterprises and capacity development in terms of strengthening innovation process, building linkages between farmers and other agencies, and institutional development to support the bargaining position of farmers.

For this purpose, a new approach to extension called "EVAP extension package" has been developed by the MOA with JICA through "Improving of Extension Valued-Added Agriculture in Jordan River Rift Valley" (EVAP project) 2011-2014. The EVAP extension package is a dynamic participatory approach and emphasizes on the following elements,

(i) Extension should target groups of farmers
(ii) Extension should be demand-driven
(iii) Extension should be market-oriented
(iv) Extension services should be consistent with technical support throughout the gestation period

This concept highlights provision of services that meet needs and priorities of farmers in the context of changing domestic and international markets to assist farmer's income improvements and stabilization.

EVAP extension package was developed and implemented in the JRRV and proved its effectiveness in terms of the following aspects,

(i) Acceleration of disseminating of recommended agricultural techniques
(ii) Improvement of extension outreach and coverage
(iii) Improvement of effectiveness and efficiency of extension services through groups rather than individual farmers
(iv) Enhancement of farmers' ability to adopt more profitable innovations and practices by their own initiative,
(v) Improvement in communication among members of household
(vi) Improvement in the relationships between extension agent and farmers groups
(vi) Activation of the members within the groups to work towards common goals

Based on the promising results, the MOA has decided to adopt EVAP extension package as a national extension approach in all districts in the WB&GS. Responding to the initiative, EVAP Project Phase 2 will contribute to significantly upgrade the approach by providing training and technical assistance to the MOA extension agents in the remaining districts of WB&GS. The expansion of EVAP extension package will largely rely on the outcomes and accumulated experiences of the current EVAP project.

1.2 National Agricultural Sector Strategy (NASS) (2017-2022) "Resilience and Sustainable Development"



(1) Vision

The National Policy Agenda, the future vision of the agricultural sector is as follows:

> ***"Sustainable agriculture; capable of competing locally and globally; and effectively contributes to strengthening food security, the bond between Palestinians and their land as well as their sovereignty over resources, towards building an Independent Palestinian State."***

(2) Summary of agricultural sector policies

Pillar	Strategic Objective	Policy Priorities
Resilience and protection	First strategic objective: Female and male farmers' resilience and steadfastness on their lands enhanced	1. Mobilize international support to restrain Israeli violations impeding agricultural developing, particularly restriction on access, and use of natural resources, borders, infrastructure demolition and uprooting of trees. 2. Institutionalize and develop technical and financial resources dedicated to the Risk Prevention and Agricultural Insurance Fund. 3. Provide suitable environment for agricultural production and development of youth and farmers in Area C, border areas and Jerusalem through continuous coordination with all parties to provide infrastructure services to farmers and producers in marginalized areas, as well as agricultural programs and projects for the poor, marginalized and women entrepreneurs. 4. Agricultural control on border crossings and the establishment of national reference laboratories. 5. Empowering farmers and producers to access different courts to get to their rights.

Pillar	Strategic Objective	Policy Priorities
Natural resources	Second strategic objective: Natural and agricultural resources sustainably managed and better adapted to climate change	1. Establish large water facilities in arable irrigated areas through the transfer of water or water collection or wastewater treatment and increase the efficiency of the available water. 2. Provide the necessary support for land reclamation and agricultural road construction that link all agricultural land or lands that could be cultivated. 3. Take measures and arrangements to adapt with or avoid the negative impact of climate change and natural disasters, particularly high temperatures and fluctuating precipitation or declining rainwater. 4. Intensify efforts of research and official institutions, local authorities and centers to protect the forests and natural reserves, as well as organize and develop pastures, protect agricultural biodiversity in all environmental areas in Palestine. 5. Continue the greening of Palestine as a responsibility of all institutions, local authorities, schools and universities. 6. Protect agricultural lands from urban expansion, especially in plain areas and high value agricultural lands.
Production and productivity	Third strategic objective: Increased agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security	1. Guiding and supporting farmers' initiatives towards intensive and semi-intensive production systems, as well as the application of modern systems of agricultural production in line with the requirements of sustainable development 2. Strengthening the role of applied research in official research centers and universities in developing extension services for both plant and livestock agriculture. 3. Improving communication between agricultural extension workers and veterinarians with respect to the transfer and dissemination of agricultural knowledge, proper agricultural planning and commitment in the agricultural calendar. 4. Development of agricultural products, for both plant and animal specifications 5. Develop initiatives and national policies to reduce cost of production inputs, especially prices of fodders, fertilizers and pesticides. 6. Preservation of rural culture that is based on the cultivation of land with trees and crops, as well as breeding domestic animals as part of the household component.
Supportive services	Fourth strategic objective: Female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains improved.	1. Finding mechanisms to ensure access of small farmers, women and youth to funding with the aim of enhancing their current farmers and creating entrepreneurial agricultural businesses. 2. Empowering youth, women, farmers and entrepreneurs to access quality services in the field of agricultural business development and intensification of efforts to support entrepreneurship in the agricultural sector. 3. Highlight the role of women in agricultural work and their contribution to national output and enable them to strengthen their resources resulting from agricultural work and the Gross National Product (GNP), while empowering them to enhance their agricultural resources and income. 4. Enhancing information systems related to marketing, improving quality of products, activating control over the crossing, the promotion of national product and infrastructure development in marketing 5. Allocation of human and physical resources capable of developing agricultural research that is based on the needs of farmers and extension workers.

Pillar	Strategic Objective	Policy Priorities
		6. Ativation of procedures that ensure public health and phythosanitary.
Institutionalization and management	Fifth strategic objective: Effective and efficient institutional and legal frameworks developed	1. Continuous lobbying of Palestinian decision-makers and international and United Nations organizations to allocate budgets for the agricultural sector that are coherent with the economic, social and political role of the sector. 2. Regular capacity building of all workers in the private sector, MoA, as well as agricultural councils and associations. 3. Enhancing institutional environments, including premises, equipment and transportation for MoA employees, as well as that of councils, unions and cooperatives. 4. Strengthening cooperation and exchange of knowledge between stakeholders towards achieving the strategy avoiding duplication and developing results-based management approach. 5. Continue and update legislations governing the agricultural sector. 6. Joiningconventions and international treaties and organizations that serve the National Policy Agenda and goals.

Source : National Agricultural Sector Strategy (NASS) (2017-2022)

(3) Policies related to agricultural services

Governmental and non-governmental organizations, as well as private sector companies provide a wide range of services to Palestinian farmers. These services include agricultural extension services (including its various components and elements of agricultural education and awareness raising), veterinary services, agricultural research and funding. In general, the agricultural sector suffers from weak agricultural services, hindering hence sound agricultural investment, as well as weakening the sector's competitiveness and profitability. The following sections present the status of the main agricultural services provided in Palestine:

1) Agricultural research and education

The Palestine National Agricultural Research Center (NARC) is responsible for conducting agricultural research, through its' five research units and seven agricultural experiment stations, of which five are located in the West Bank and two in the Gaza Strip. In addition, five faculties of agriculture in An- Najah University, Hebron University, Al-Azhar University, Palestine Technical College (Khadoury) and Al-Quds Open universities, offer agricultural bachelors and masters' degrees in some disciplines. There are two agricultural secondary schools; one is Beit Hanoun Agricultural School in Gaza, and Al- Aroub Agricultural School in the West Bank. In addition to these educational institutions there are some NGOs that conduct agricultural research, such as the Jerusalem Institute for Applied Research (ARIJ) and the Land Research Center.

NARC, agricultural colleges and non-governmental research centers have relatively large areas of land, experiment stations, as well as basic and some modern equipment that facilitate access to externally funded projects. They are also well distributed geographically. However, there are weaknesses in the coordination mechanisms between these institutions and some duplication of research. Furthermore, institutions face challenges in renovating and maintaining their tools, equipment and facilities. Universities continue their exploratory and theoretical research in isolation from the reality of Palestinian farmer and the national extension service system, and without coordinating with national agricultural research centers. All these

knowledge generating institutions are influenced by fluctuating and unsustainable financial resources allocated for research.

Many students graduate from universities and agricultural training programs annually, but their qualifications and abilities aren't aligned with the requirements and needs of the labor market. Furthermore, academic research has low impact despite meeting global quality standards. The country's lack of a national reference library for agriculture weakens policy advice abilities. Unfortunately, consulting services in the field of agricultural policy are also weak.

2) Agricultural extension services and training

MoA provides extension services to farmers on a regular basis and indirectly through its extension units distributed in all governorates. These services are offered through companies supplying production inputs, which in turn provide agricultural extension services to farmers as part of their purchase process. In addition, a number of civil society organizations provide such services as part of their agricultural development projects, which are usually limited in scope and lifecycle. As per farmers' perspective, MoA and companies supplying production inputs are the most important sources of extension services.

The Palestinian National Agricultural Extension Strategy (PNAES) of 2015-2018 refers to the limited scope of coverage of extension services that, in general, are still deemed insufficient to cover effectively all agricultural holdings, given that the individual visit to farms is the most common method used when providing extension services. In addition, agricultural testing stations aren't playing an active role in providing advice or responding to the problems faced by farmers.

The lack of coverage of operational costs is one of the key factors adversely influencing the efficiency and effectiveness of governmental agricultural extension services in Palestine. Agricultural extension officers are not allocated sufficient financial resources to ensure their adequate coverage of all areas, in addition to the lack of financial allocation dedicated for agricultural experiments and observations, which are some of the agricultural extension methods.

3) Veterinary services

Veterinary services play a pivotal role in animal health, food hygiene and public health protection. Livestock productivity is highly dependent on the availability of animal health care services that are characterized by their quality and regular availability. Veterinary services in the Palestinian territories (which are provided for a great part by MoA) include free animal vaccination against foot-and-mouth disease and Maltese fever, while fees are charged for vaccination against other diseases, as well as the provision of clinical and laboratory diagnosis. In addition, fees are almost free of charge for most important animal diseases, and for undertaking pathological surveys, control programs, eradication of important diseases, such as bird pathogenicity influenza, follow-up of slaughterhouses and the general health of consumers through animal products safety monitoring, as well as animal tracking via the national identification program. The government provides veterinary services in the West Bank through its veterinary clinics affiliated to MoA, as well as via the private sector.

4) Plant protection

Plant protection services play a vital role in protecting agricultural plant production through the implementation of regulations, as well as pythosanitary measures that prevent the introduction and spread of agricultural pests at national level. These services provide all international trade requirements and agreements related to plant protection and quarantine. MoA is the competent authority responsible for recording, controlling and regulating all national trading operations and use of agricultural pesticides. The Ministry has also a key role in determining the safe use of pesticides and chemicals, as well as rationalizing their use and direct effects on agriculture, the environment and food safety. Moreover, the private sector undertakes some extension activities in this area, focusing on marketing aspects.

5) Agricultural marketing and post-harvesting services

The General Directorate of Marketing ensures access of agricultural products to local and international markets through focusing on the concept of producing what can be marketed instead of marketing what is produced. The Directorate also protects national products, provides economic and marketing information to investors and producers, as well as develops measures for export crop development. A group of Palestinian private companies contribute to the export of local agricultural products abroad, especially the Gulf, America and Europe. Local companies and some traders work on marketing agricultural products in Israel. Many of the official and civil society organizations, companies, as well as farmers' associations and cooperatives organize exhibitions, marketing days and festivals for marketing of national products, such as grapes, apricots, oil and cooperative products, dates and snake cucumber.

(4) Outputs of the Second Program Policy Statement (Enhancing Agricultural Services)

1) Program goals:

3. Farmers resilience and steadfastness enhanced.
4. Access of farmers and entrepreneurs to quality agricultural services and respond to the needs of the agricultural sector value chain

2) Objectives and outputs:

3.1 Farmers and producers who have sustained damages as a direct result of the Israeli occupation receive the needed support to ensure their steadfastness.

3.2 Farmers whose rights are violated by Israeli army or settlers have access to legal recourse.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (156) reports prepared to monitor and document agricultural damages. 2. (1543) of farmers, who were affected by Israeli violations are provided with the necessary support.	-

3.3 Farmers and producers who have sustained damages as a result of natural disasters and market crisis receive the needed support to ensure their capacities to adapt, continue production and development.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. Reports to monitor and document damages occurring from natural disasters	1. (5000) tons of feed were distributed to breeders.

3.4 Innovative youth, female farmers, and producers are engaged in sustainable and feasible agricultural and rural activities.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. A network of relationships with partner institutions involved in investment	1. (1000) sheep were distributed to small farmers and women.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
2. Laboratory services available to farmers, investors and youth entrepreneurs. 3. (11) socio-economic studies available. 4. (3) studies on investment opportunities in the agricultural sector. 5. 150 experimental models for technology transfer. 6. Technical consultations provided to farmers, investors and institutions. 7. Workshops for investment institutions, agricultural associations and farmers organized. 8. A website created about prospects for investment in the agricultural sector. 9. (6) regional and international conferences to encourage and attract investment. 10. (8) feasibility studies for various agricultural sectors. 11. (3) reports on national priorities for investment in the agricultural sector. 12. Network of relationships with institutions partners in investment.	2. (90) dunums of greenhouses have been built. 3. (80) fishponds were built. 4. (18) home and business aquaponic units were built. 5. (4) ornamental fish production units created. 6. (X) grants for the establishment and development of agricultural projects were provided

4.1 Agricultural extension and veterinary services, research, insurance and financial services, as well as business development services continuously developed and expanded.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. An annual guide on pesticides released. 2. Continuing education for (150) veterinarians, technicians and breeders. 3. (30) service managers and agricultural inspectors trained technically and administratively.	1. Agricultural extension officers trained in using salt resistant fodder. 2. (20) staff trained on land and soil management. 3. (90) agricultural engineer trained. 4. (150) veterinarians and technicians trained. 5. (30) agricultural extension officers trained in fish production. 6. (164) agricultural extension officers trained. 7. Laboratory for bio-agricultural production to combat agricultural pests. 8. Station for safe disposal of confiscated and expired pesticides established. 9. Tools and equipment for test stations available. 10. (20) agricultural research staff trained. 11. Seed production system established in Palestine. 12. (45) extension officer trained in field crops and seed production. 13. (2) Mobile Veterinary Clinic equipped. 14. (15) supplies provided to veterinary laboratories. 15. An equipped veterinary laboratory building.

4.2 Agricultural marketing services, including wholesale markets, demonstrate good management and have adequate infrastructure to support quality service provision.

Non-project outputs (2017-2019)	Project outputs (2017-2019)
1. (2700) import permits and licenses released for agricultural products, production inputs and machines. 2. (36) monthly reports published about the local market, exports and imports. 3. (12) studies published about markets for agricultural products or processed agricultural food. 4. (10) reports published about the central markets. 5. (72) marketing guiding visits have been organized. 6. (30) Festival organized for agricultural commodities. 7. (7) trade agreements for agricultural products signed with business partners.	1. Fish packaging and Marketing Center established. 2. (7200) internationally recognized Pythosanitary certificates (in print and electronic). 3. 20 exhibitions and festivals organized for Palestinian products. 4. Palestinian agricultural products are available in (45) international festivals and exhibitions. 5. (3) technical studies released on marketing. 6. (730000) packages distributed. 7. (3) courses organized on marketing. 8. Contracts to export 4500 tons of olive oil, 2400 tons of grapes and 4500 tons of other fruits.

2. Implementation System of Agricultural Extension

2.1 Ministry of Agriculture (MOA)

The MOA is currently responsible to deliver extension services to farmers through their extension agents at sector, district, and village level. Main functions of the MOA are listed as follows:

(i) Coordination and planning of agricultural development programs function
(ii) Collection, analysis and provision of agricultural sector information function
(iii) Monitoring and evaluation function
(iv) Regulating and control function
(v) Resources mobilization function

STATE OF PALESTINE
MINISTRY OF AGRICULTURE

Planning for agricultural sector development by the MOA is not possible without information from the local level (DOAs) about the general agricultural situation, its evolution and problems of farmers. It is observed that functional dependence between the MOA and DOA is essential. The MOA needs information from Districts to be able to plan the development of the agricultural sector properly, while Districts need support of the MOA. This emphasizes the need for the MOA to work closely with NARC and agricultural experimental stations to,

(i) Identify needs, priorities and required fund allocation for MOA
(ii) Strengthen the capacities of DOA through their extension agents and extension units
(iii) Develop strong functional relationship between the farmers, extension, and research

The MOA organizational structure is as shown in the table below. There are 4 assistant deputy ministers subordinate to the deputy minister. The 4 general directorates related to EVAP-2, which are General Directorate of Extension and Rural Development, General Directorate of Marketing, General Directorate of Planning and Policy, and General Directorate of Agricultural Water and Irrigation, are respectively subordinate to each assistant deputy minister. At the district level, there are 16 DOAs in the West Bank, and 5 DOAs in the Gaza Strip as of June 2021. Gender Unit has been added under the minister.

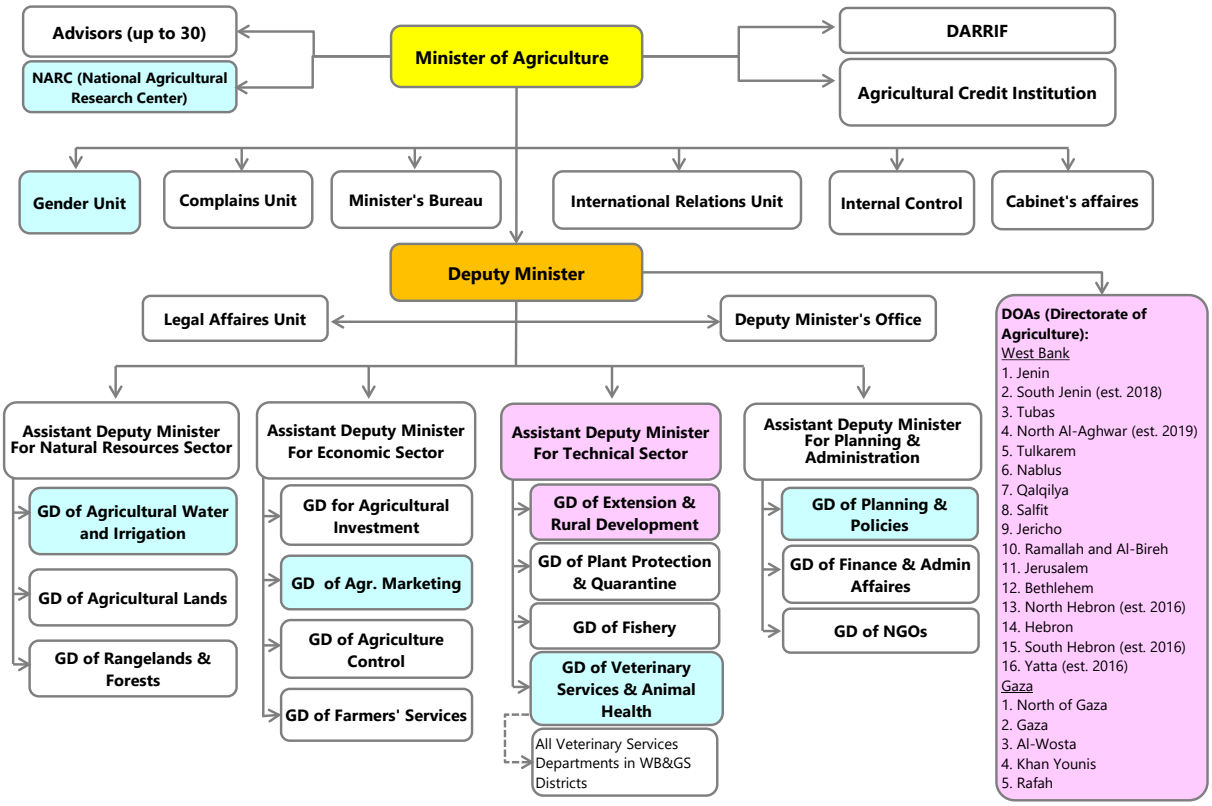


Figure: Organizational Structure of MOA as of June 2021

2.2 General Directorate of Extension and Rural Development (GDoERD)

MOA performs regulation and management duties of the agricultural sector through the directorates set up at the national and district levels. Activities of the general directorates at national level and directorates at district level are directed and coordinated by the Assistant Deputy Ministers of MOA.

Agricultural extension and rural development at the national level comes under the purview of the General Directorate of Extension and Rural Development (GDoERD). At present, the GDoERD consists of the following departments: Extension Planning, Horticulture, Vegetables & Cut flowers, Rainfed Crops, Olive Trees, Animal Feeding, Poultry, Ruminants, Bees & Honeybees, Rural Development and Mass Media departments. Under the General Director, the departments are staffed with relevant SMSs and extension agents. Functions of the national level general directorates, including those of GDoERD, are implemented at the field level by 21 DOAs located in the WB&GS districts as of June 2021 through following departments and divisions:

(i) Extension Service Department: fruit trees, vegetables, rainfed crops, rural development, poultry, ruminants, bees & honeybees, mass media and extension unit divisions,
(ii) Technical Department: land development & projects, plant protection, marketing, water & irrigation and rangelands & forestry divisions,
(iii) Support Services Department: NGOs, agricultural monitoring, agricultural insurance & losses and legal services divisions,
(iv) Financial, Administration and Planning Department: Planning, administrative affairs, financial affairs and TAX reimbursement divisions. DOAs are headed by Directors of Agriculture and extension agents are attached to the extension services department.

The organizational structure of GDoERD as of June 2021 is as in the table below.

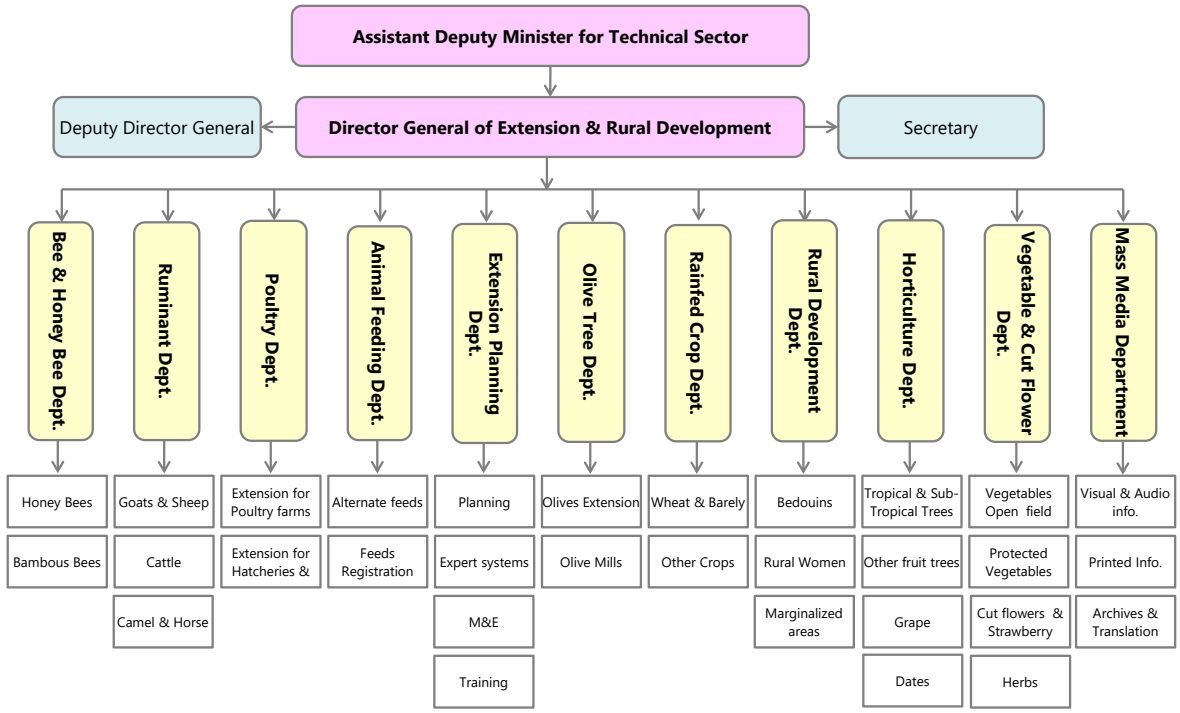


Figure Organizational Structure of General Directorate of Extension and Rural Development as of June 2021

2.3 Directorate of Agriculture (DOA)

The MOA extension officers at district and village level need to have functional relationship with all public and private institutions with which they can cooperate in performing their functions. The extension agents need to work closely with local authorities for realization of the common objective of providing the most effective supports requested by farmers and by other actors of agricultural development in the districts. The following is a tentative list of areas which need a functional relationship between local authorities and extension agents at District level:

(i) Basic technical and socio-economic information
(ii) Agricultural planning and lands use
(iii) Facilitation and technical support
(iv) Technical control, license and regulation
(v) Capacity building
(vi) Monitoring and evaluation of activities and give timely feedback to different partners

Note: It should be mentioned that the types of functional relationships which are expected between the extension agents and local authorities are not limited to what has been mentioned above.

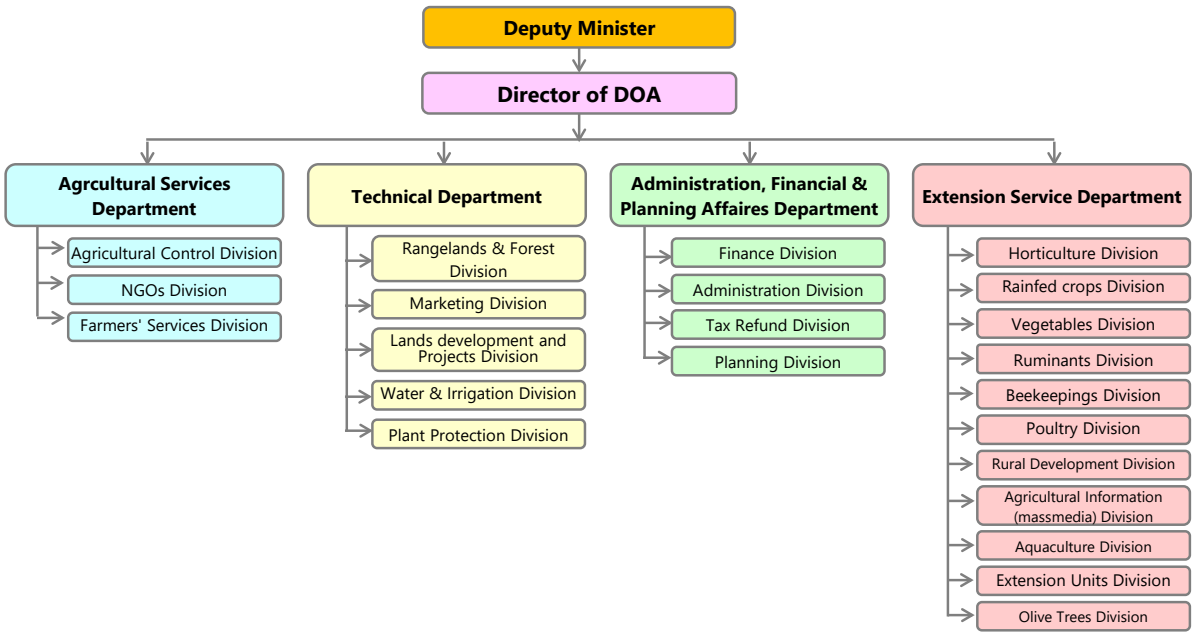
Twenty-one Directorate of Agriculture (DOA) has been set up to coordinate on-site dissemination activities. There are 16 DOAs in the West Bank and 5 DOAs in the Gaza Strip. The Department of Agriculture in the West Bank was 14DOAs at the beginning of EVAP-2, but South Genin DOA was established in 2018 and Northern Al-Agwar DOA was established in 2019. The list and location of DOA is shown in the following table and the following figure.

Table: List of Directorate of Agriculture as of June 2021

No.	Name of DOA	Distirct	Location	Year of Establishment
West Bank				
1	Jenin	Jenin	Jenin	
2	South Jenin	Jenin	Qabatyia	2018
3	Tubas	Tubas	Tubas	
4	North Al-Aghwar	Tubas	Bardala, Ein El Baida and Kardala	2019
5	Tulkarem	Tulkarem	Tulkarem	
6	Nablus	Nablus	Nablus	
7	Qalqilia	Qalqilia	Qalqilia	
8	Salfit	Salfit	Salfit	
9	Jericho	Jericho	Jericho	
10	Ramallah and Al-Bireh	Ramallah	Ramallah	
11	Jerusalem	Jerusalem	Jerusalem	
12	Bethlehem	Bethlehem	Bethlehem	
13	North Hebron	Hebron	Hebron	
14	Hebron	Hebron	Halhoul	2016
15	South Hebron	Hebron	Dura	2016
16	Yatta	Hebron	Yatta	2016
Gaza Strip				
17	North of Gaza	Biet Lahyia	Beit Lahyia	
18	Gaza	Gaza	Gzaa	
19	Al-Wosata	Dier Al-Balah	Deir Al-Balah	
20	Khanyounis	Khanyounis	Kahnyounis	
21	Rafah	Rafah	Rafah	

Sourrce: MOA

A typical organizational structure of the DOAs of West Bank is shown in the figure below. The DOAs in the West Bank have the almost same structure, which serves as a model structure for DOAs. The project should note that actual human allocations might not correspond to the model structure.



Note: It depened on DOAs.

Figure General Organizational Chart of DOA in the West Bank

The main differences between DOAs in the West Bank and the Gaza are: i) there are no technical departments or agricultural services departments in the Gaza. It has only extension divisions and divisions related to administrative works and, ii) the livestock section is not under the extension division. The livestock

production is assigned to the general directorate of veterinary services in MOA.

The assessment as of May 2011 pointed out a challenge of the organizational structure by stating that "the top-down approach was not helpful in terms of identifying farmers' needs and priorities and formulating a demand-driven extension program."[2]

2.4 Extension Units

There are 38 extension units in the West Bank, with 50 extension officers. Among the total number of extension officers at the units, 10 agents (20%) are female. Villages served by the extension units are 257. The number of villages served per unit varies, ranging from 1 to 21. In total, the number of villages served per extension officer is 5.1, which also varies among the units from one 1 to 17 villages per extension officer. Most of the extension units provide services of both plant and animal production. We should note that two 2 units render services for animal production only. Due to limited human resources and means of transportation, the extension units target a very limited number of farmers, mostly those in the same villages where the unit offices are located. Some units perform their duties on only one working day in a week. Reportedly, there is some duplication or confusion in rendering extension services between extension units and DOAs.

Table List of Extension Units in the West Bank in 2017

No.	District	No. of Extension Unit	Total No. of Extenion Agents	Name of the Extension Unit	Year of Est.	No. of Extension Agents			Type of Extension Service
						Male	Femal e	Total	
1	Nablus	2	3	Asseera	2000	2	0	2	Mixed
				Baita	2000	1	0	1	Mixed
2	Tubas	1	1	North Alaghwar*	2000	1	0	1	Plant
3	Jericho	1	3	Jeftilik	2010	3	0	3	Mixed
4	Tulkarem	2	6	Wad sha'eer	1999	2	1	3	Mixed
				Alsha'rawyia	1999	1	2	3	Mixed
5	Qalqilya	No Data	-	-	-	-	-	-	-
6	Jenin	6	8	Qabatyia*	1999	2	0	2	Mixed
				Arabeh	2008	2	0	2	Mixed
				Selat Al-Harathyeh	1999	0	1	1	Mixed
				Selat Al-dahr	2000	1	0	1	Mixed
				Maithalon	1996	1	0	1	Mixed
				Al-Yamoun	2000	1	0	1	Mixed
7	Salfit	1	0	Bedyia	2005	0	0	0	Mixed
8	Ramallah	5	5	Singil	2001	1	0	1	Mixed
				Silwad	2000	1	0	1	Mixed
				Beit Or	2002	1	0	1	Mixed
				Na'leen	2001	1	0	1	Mixed
				Bani Zaid	2000	1	0	1	Mixed
9	Jerusalem	1	1	Al Qubeba	2000	1	0	1	No Data
10	Bethlehm	3	4	Taquo'	2005	1	0	1	Mixed
				Al-Khader	2005	1	1	2	Mixed
				Al-Ubeidyia	2005	1	0	1	Mixed
11	North Hebron	2	2	Beit omar unit	2002	0	1	1	Mixed
				Soreef	2009	1	0	1	Mixed
12	Hebron	7	8	Bani Na'aim	2000	1	1	2	Plant
				Tarqumyia	1990	1	0	1	Animal
				Beit Ola	2006	1	0	1	Plant
				Ethna	2006	1	0	1	Animal
				Sa'air	2006	1	0	1	Plant
				Alshyoukh	2008	1	0	1	Plant
				Hebron	2009	1	0	1	Mixed

[2] Sounrce：Assessment of the Public Agricultural Extension System of Palestine & Recommendations for Improvement (May 2011)

No.	District	No. of Extension Unit	Total No. of Extenion Agents	Name of the Extension Unit	Year of Est.	No. of Extension Agents			Type of Extension Service
						Male	Femal e	Total	
13	South Hebron (Dura)	5	6	Dora	2000	1	0	1	Mixed
				Al Sera	2000	1	0	1	Mixed
				Al-Thaheryia	1996	1	1	2	Mixed
				Al Majad	2000	1	0	1	Mixed
				Deer Samet	2000	0	1	1	Mixed
14	Yata	2	3	Al samou	2013	1	1	2	Mixed
				Al Karmel	2016	1	0	1	Mixed
		38	**50**			**40**	**10**	**50**	

** North Alaghwar EU and Qabatyia EU have been promoted to DOA in 2018 and 2019, respectively.*

3. Extension Officers

(1) Number of Extension Officers, Gender Ratio, Age, Years of Experience

Based on MOA personnel information (2017), there were 164 MOA employees engaged in agricultural extension in the West Bank. By gender, there were 122 females compared to 122 males. The average age was 41.8 years, and the average years of work experience was 13.4 years. The following table outlines the MOA staff engaged in the agricultural extension in the West Bank.

Table: Overview of MOA staff engaged in agricultural extension in the West Bank in 2017

Office	Total No. of Staff	Male	Female	Male (%)	Female (%)	Average Age	Average Experienced Year
GDoERD	27	16	11	59%	41%	41.1	14.2
Jenin DOA	15	12	3	80%	20%	44.3	16.8
Tubas DOA	11	7	4	64%	36%	43.9	14.9
Tulkarm DOA	15	11	4	73%	27%	44.1	14.8
Nablus DOA	14	12	2	86%	14%	46.9	17.2
Qalqiliya DOA	8	7	1	88%	13%	38.9	9.9
Sulfit DOA	5	3	2	60%	40%	41.2	14.2
Ramallah DOA	9	7	2	78%	22%	45.2	13.7
Jericho DOA	8	7	1	88%	13%	41.6	14.9
Jerusalem DOA	7	6	1	86%	14%	36.3	9.0
Bethlehem DOA	10	8	2	80%	20%	38.9	8.7
North Hebron DOA	3	2	1	67%	33%	33.0	5.3
Hebron DOA	10	6	4	60%	40%	41.0	12.5
South Hebron DOA	8	6	2	75%	25%	36.3	9.4
Yatta DOA	7	7	0	100%	0%	39.4	9.4
Livestock Breed Improvement Center	7	5	2	71%	29%	43.7	15.0
Total	**164**	**122**	**42**	**74%**	**26%**	**41.8**	**13.4**

Source: Aggregated based on MOA personnel information

(2) Technical Field of Extension Officers

The following table shows the allocation of MOA staff engaged in agricultural extension in the West Bank by technical field. The ratio of extension officers who specialize in livestock is the highest, accounting for 28% of the total. This was followed by crop production at 19%, agricultural engineering at 27%, and agricultural extension (general) at 12%. Overall, it is considered that they are arranged in a well-balanced manner according to the situation of agricultural production in each region.

Table: Assignment of MOA staff engaged in agricultural extension by technical field in 2017

Office	Extension	Plant Production	Rural Development	Livestock	Agricultural Engineer	Other	Total
GDoERD	2	9	2	7	1	6	27

Office	Extension	Plant Production	Rural Development	Livestock	Agricultural Engineer	Other	Total
Jenin DOA	1	2	0	2	3	0	8
Tubas DOA	2	3	1	4	0	1	11
Tulkarm DOA	2	4	1	4	3	1	15
Nablus DOA	2	3	1	6	0	2	14
Qalqiliya DOA	2	5	1	6	0	1	15
Sulfit DOA	1	1	1	1	1	0	5
Ramallah DOA	1	3	2	3	0	0	9
Jericho DOA	1	2	2	2	1	0	8
Jerusalem DOA	1	0	1	2	3	0	7
Bethlehem DOA	0	3	1	2	4	0	10
North Hebron DOA	0	1	0	0	2	0	3
Hebron DOA	2	2	1	2	2	1	10
South Hebron DOA	1	3	0	1	3	0	8
Yatta DOA	1	1	0	1	4	0	7
Livestock Breed Improvement Center	0	1	0	3	0	3	7
Total	**19**	**43**	**14**	**46**	**27**	**15**	**164**
Proportion to Total	**12%**	**26%**	**9%**	**28%**	**16%**	**9%**	**100%**

Source: Aggregated based on MOA personnel information

(3) Training results of Extension Officers before EVAP-2 Implementation

The following table summarizes the training results that MOA staff engaged in agricultural extension have participated in before the implementation of EVAP-2. Looking at the total number of participants in the training, the number of participants in the training on the theme of agricultural technology was the largest, accounting for 58%. This was followed by the agricultural extension method at 13% and organizational management at 8%. Marketing-related training, which is important for promoting cash crop production, was as low as 3% of the total. Therefore, EVAP-2 needs to strengthen the capacity of MOA staff by conducting training specialized in the marketing field. In addition, it is important to expand the range of technical fields of extension officers in order to cover the entire value chain.

Table: Training results that MOA staff engaged in agricultural extension as of 2017 before EVAP-2 implementation

Office	Total No. of Staff	No. of Staff attenging Trainings	% of Staff attenging Trainings	Total No. Staff attending Trainings	Training Topic				
					Technical Issues	Extension	Marketing	Management	Other
GDoERD	27	24	89%	181	73	26	8	20	54
Jenin DOA	15	14	93%	57	38	8	2	2	7
Tubas DOA	11	9	82%	49	31	12	0	1	5
Tulkarm DOA	15	11	73%	48	34	7	1	3	3
Nablus DOA	14	11	79%	46	27	7	1	5	6
Qalqiliya DOA	8	5	63%	38	22	7	1	4	4
Sulfit DOA	5	4	80%	16	10	1	1	2	2
Ramallah DOA	9	8	89%	29	20	3	0	2	4
Jericho DOA	8	6	75%	43	27	5	1	6	4
Jerusalem DOA	7	3	43%	10	6	0	0	1	3
Bethlehem DOA	10	7	70%	20	13	3	2	1	1
North Hebron DOA	3	1	33%	2	2	0	0	0	0
Hebron DOA	10	8	80%	39	25	2	4	1	7
South Hebron DOA	8	5	63%	24	17	0	0	3	4
Yatta DOA	7	3	43%	12	8	1	1	1	1
Livestock Breed Improvement Center	7	5	71%	17	16	1	0	0	0
Total	**164**	**124**	**76%**	**631**	**369**	**83**	**22**	**52**	**105**
				100%	**58%**	**13%**	**3%**	**8%**	**17%**

Source: Aggregated based on MOA personnel information

(4) Number of Agricultural Holdings and Extension Officers in the West Bank

The following table compares agricultural holdings by district and DOA extension officers in the West Bank. According to the Palestinian Agricultural Census (2010), according to the aggregate of agricultural holdings targeted for agricultural extension by district, Hebron had the highest number of 19,768 agricultural holdings, followed by Jenin with 14,662 agricultural holdings and Nablus with 13,450 agricultural holdings. The least was Jericho with 1,612 agricultural holdings, followed by Tubas with 2,834 agricultural holdings. Looking at the ratio of agricultural holdings to extension officers engaged in agricultural extension in the entire West Bank, 505 agricultural holdings were covered per extension officer. By district, Salfit had the highest number of agricultural holdings per extension officer, followed by Ramallah with 753 agricultural holdings and Jenin with 637 agricultural holdings. The lowest was 147 agricultural holdings in Jericho, followed by 236 agricultural holdings in Tubas.

In Salfit and Ramallah, fewer extension officers can cover agricultural holdings. This is because there is not much need to introduce new technology in areas where there are many part-time farmers engaged in olive cultivation. On the other hand, Jericho and Tubas are thought to be due to the small number of agricultural holdings.

It is expected that the appropriate number of extension officers will change depending on the agricultural production in the area. Therefore, based on the general condition of agricultural production in the region, EVAP-2 considered the balance of agricultural holdings covered by extension officers, and incorporate not only individual visits to farmers but also group extensions to exteblish efficient agricultural extension methods.

Table Agricultural Holdings per DOA extension officer by District in the West Bank in 2017

Governorate (District)	Type of Agricultural Holding			Total Number of Holdings	No. of Extension Officers at DOAs	No. of Extension Officers at EUs	No. of Holdings per Extension Officer
	Plant	Animal	Mixed				
West Bank	**65,267**	**10,879**	**14,762**	**90,908**	**130**	**50**	**505**
Jenin	10,512	1,521	2,629	14,662	15	8	637
Tubas	1,714	437	683	2,834	11	1	236
Tulkarm	6,595	544	896	8,035	15	6	383
Nablus	9,721	1,307	2,422	13,450	14	3	791
Qalqiliya	3,701	411	817	4,929	8	0	616
Salfit	3,979	210	497	4,686	5	0	937
Ramallah & Al-Bireh	8,817	656	1,070	10,543	9	5	753
Jericho & Al-Aghwar	598	804	210	1,612	8	3	147
Jerusalem	1,768	965	250	2,983	6	1	426
Bethlehem	4,915	1,198	1,293	7,406	10	4	529
Hebron	12,947	2,826	3,995	19,768	29	19	412
Gaza Strip	**13,909**	**3,362**	**3,131**	**20,402**	**-**	**-**	**-**
North Gaza	3,085	1,101	621	4,807	-	-	-
Gaza	1,920	616	333	2,869	-	-	-
Deir Al-Balah	2,038	534	499	3,071	-	-	-
Khan Yunis	4,401	631	1,094	6,126	-	-	-
Rafah	2,465	480	584	3,529	-	-	-
Palestinian Territory	**79,176**	**14,241**	**17,893**	**111,310**	**-**	**-**	**-**
West Bank	**65,267**	**10,879**	**14,762**	**90,908**	**-**	**-**	**-**

Source : Agricultural Census 2010 (Palestinian Central Bureau of Statistics) and MOA

4. Agricultural holdings[3]

Agricultural holdings in Palestine are usually small (average size 18.6 dunums) household holdings. The majority (88%) are owned outright by the household, but some are either fully rented, or owned land is supplemented by renting an extra area. There are 101,172 holdings in Palestine, nearly 70% of which are plant production holdings only, 7.6% are livestock holdings only, and the remainder practice mixed production.

The total number of agricultural holdings in Palestine reaches 111,310 holdings, of which 90,908 are in the West Bank, (81.7%), and the remaining 20.402 holdings are in the Gaza Strip (18.3%). The governorate of Hebron is one of the largest areas in terms of number of agricultural holdings, constituting approximately 18% of the total holdings in the Palestinian territories, and amounting to 19,768 holdings. On the other hand, the governorate of Jericho has the least number of agricultural holdings amounting to 1612, and constituting 1.4% of the total holdings in the Palestinian territories. The majority of agricultural holders are in the age group between 40-49 years (28.6%), of whom 28.9% are in the West Bank and 27.3% in the Gaza Strip.

Plant holdings are the most common in the Palestinian territories, reaching 79,176 holdings and averaging 71.1% (82.4% in the West Bank and 17.6% in the Gaza Strip). The Palestinian agricultural census reveals that most agricultural holdings are considered as smallholdings, as 83,785 holdings covered less than 10 dunums of area, amounting to 75.3% of total agricultural holdings and 20.7% of total agricultural land holdings. The percentage of large holdings, exceeding 80 dunums of area, constitutes 1.8% only of total agricultural holdings and 29.5% of total agricultural land holdings. In addition, the average area of agricultural holdings reached 10.8 dunums (12.2 dunums in the West Bank and 5 dunums in the Gaza Strip). The highest average area of holdings was in Tubas, Jericho and the Jordan Valley covering 25 dunums. Typically, agricultural holdings in Palestine are small due to the fragmented and divided agricultural holdings as a result of issues related to inheritance cases, lack of a law protecting agricultural lands from fragmentation, as well as the Israeli policies and attacks, including the confiscation, vandalisation and destruction of land.

Agricultural holdings are divided between livestock and mixed holdings, as livestock holdings reached 14,241, representing 12.8% of total agricultural holdings in the Palestinian territories, of which 10.879 holdings (76.4%) were in the West Bank and 3362 holdings (23.6%) in the Gaza Strip. Mixed holdings reached 17,893, accounting for 16.1% of total agricultural holdings in the Palestinian territories, including 14,762 holdings (82.5%) in the West Bank and 3,131 holdings (17.5%) in the Gaza Strip. Livestock and mixed holdings are similar to plant holdings in terms of average area covered, and are considered as small. For example, 61% of livestock holdings that have cows (1263) don't exceed three heads, 65% of livestock holdings that have sheep (8844) do not exceed 19 heads, and 66% of holdings that have goats (5350) do not exceed 19 heads.

5. Agricultural Lands[4]

According to Agricultural Census 2010, of approximately 6.023 million dunums, which make up the total land area of Palestine, with the largest percentage (94%) in the West Bank8, 20% is used for agricultural

[3] Source: Agricultural Census 2010
[4] Source: Agricultural Census 2010

purposes (1.2 million dunums). Ninety per cent of agricultural lands is located in the West Bank, while only 10% is located in the Gaza Strip. The majority of the Palestinian territories in the West Bank, including agricultural land, are still under full Israeli control, as 62.9% of West Bank area is classified as Area (C) according to Oslo Agreement. On the other hand, only 18.8% of the West Bank area is located in Area (B) that falls under the Israeli-Palestinian administrative control and security, and 18.3% is classified as Area (A), which is the only area under full Palestinian control.

Despite the "Israeli withdrawal" from the Gaza Strip in 2005, during which lands occupied by Israeli settlement were returned to Palestinians, Israel is still preventing farmers' access to their land in what is known as the "buffer or border areas" that stretches along the eastern sector along the borders of Israel and extended over a depth ranging from 150 meters to one kilometers. The total agricultural land in the border areas is estimated to at least 62 square kilometers (40% of agricultural land in the Gaza Strip). This area is not exploited by farmers due to their inability to access their lands, or is cultivated by field crops that are of little use and cost-effective due to the danger facing farmers reaching their lands there.

In the state of Palestine, rain-fed agriculture is dominant, occupying nearly 81% of the total area of land used for agriculture, while irrigated areas cover approximately 19% of land used in agriculture, located mainly in the governorates of Gaza Strip and the Jordan Valley, as well as in semi-coastal areas in the West Bank only. In general, low soil fertility and weak trends in agricultural land investment, as a result of water scarcity, poor financial resources and high risk, are the key challenges associated with land development in Palestine.

The total area of agricultural land currently used by Palestinians doesn't exceed half of the Palestinian agricultural land area available for cultivation, while the remaining areas are distributed to lands that can be cultivated but are not used for such purposes, or lands that need rehabilitation, lands that cannot be rehabilitated (often used for grazing of ruminants), lands used for industrial and urban expansion, as well as areas confiscated by the Israeli authorities for settlement expansion, building the separation wall and the construction of bypass roads.

Pasture areas cover 2.02 million dunums, but only 621 thousand dunums are allowed for grazing of ruminants, leading to increased load on pastoral practices and overgrazing in these areas that are open to at least 250 thousand livestock heads. These areas suffer from low rainfall that ranges between 100 and 250 millimeters per year only. On the other hand, closed forest areas amount to 94,000 dunums and 320 thousand dunums of open forest areas. Of the total 48 natural reserves in the West Bank, the Palestinian National Authority received 17 only that are located in the eastern slopes and the Jordan Valley10.

6. Agricultural weather and water resources[5]

The water sector is one of the most vital sectors in sustainable agricultural development process at the national level. The Israeli occupation deliberate neglect and constraints imposed on water development over the decades and to our present day directly contributed to hindering real agricultural development opportunities. Israel's control over water resources has been for the benefit of Israeli development needs

[5] Source: Agricultural Census 2010

without taking into consideration Palestinian water needs, or Israel's obligations under the signed agreements. The critical situation and performance of the water sector is reflected by the limited irrigated agricultural areas in the Palestinian territories in general, constituting only 12% of agricultural land in the West Bank, in comparison to 77% in the Gaza Strip, 37% in Jordan and 59% in Israel.

In the absence of significant surface water sources, along with Palestinians' inability to often invest in infrastructure for water resources development (such as springs for example) because of its location in Area C, groundwater remains the primary source of water in the Palestinian territories. But Palestinians extract only 20% of groundwater "expected quantities" in the West Bank, while Israel extracts large amount of water, exceeding 50% of the renewable quantities without the consent of the Joint Water Committee, which is supposed to operate according to the Oslo agreement to regulate and manage shared water issues. In fact, Israel extracts more than 1.8 times of its share under the Oslo agreement, consequently resulting in several risks to ground water wells and low quantities of water available to Palestinians from shallow wells pumping.

The estimated total water used for agriculture does not exceed 150 million cubic meters annually in the West Bank (60 million cubic meters) and 90 million cubic meters in the Gaza Strip. This amount represents 45% of the total water consumption, which is reflected directly on the limited prospects for the development of irrigated agriculture that can have an important economic, social and political role in rebuilding the Palestinian economy.

Despite the significant interest of farmers in increasing the irrigated agricultural area, especially in protected agricultures, which still provide a relatively high level of profitability, the old agricultural wells and the inability to rehabilitate them due to Israeli restrictions, in addition to the limited number of licenses granted to new agricultural wells and drought of many springs hindered the desired transformation and growth of irrigated crops in the West Bank. It is worth mentioning here that the growing demand for water due to steady population growth leads to real crisis in the availability of water that consequently raise the price of water and the cost of delivery to farmers. This also plays a key role in the growing phenomenon of unlicensed wells and pumping practices.

The amount of water used in agriculture in the Gaza Strip is estimated by approximately 90 million cubic meters annually, which is equivalent to almost 54% of the total water consumption in the Gaza Strip. The excessive use of groundwater has led to poor water quality and saltwater intrusion from sea water into the groundwater. The proportion of water available for drinking and pumped from underground wells does not exceed 10%. As alternative solutions to water shortages, Palestinians in the Gaza Strip have been drilling private wells and desalinating sea water for domestic and agricultural use, which further exacerbated problems faced by the water sector in the Gaza Strip. The water sector is facing a dangerous situation that may not be reversed within the coming three years if reasons for its deterioration are not rapidly addressed.

In general, crop cultivation is affected by weather conditions such as temperature and rainfall in the area. In the small area of the Palestinian territory, temperature often depends on altitude. In addition, the natural environmental conditions of Palestine are highly variable and have a great influence on crop types, varieties, planting times, cultivation management, and so on. In particular, not only the temperature and precipitation vary from year to year, but also the difference due to the difference in altitude is large, which leads to the

diversification of crop cultivation. The following figure shows the temperature and precipitation (2014-2016 average) at major points in the West Bank.

Jenin (178 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	16.9	19.9	22.8	27.2	29.5	31.8	33.0	34.1	32.8	30.1	23.8	18.6	
Min. Temp.	8.3	9.8	12.8	15.1	18.5	21.4	23.7	24.7	23.2	19.7	14.1	9.4	
Ave. Temp.	12.2	13.3	17.2	19.4	23.7	25.3	27.6	29.3	28.2	24.2	18.6	13.8	
Rain fall	97.5	86.4	38.6	23.6	8.9	0	0	0	1	21.0	60.5	84.3	421.8

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Jenin

Nablus (570 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	14.0	16.7	20.0	24.7	27.6	30.4	31.4	32.5	30.8	27.3	20.6	15.2	
Min. Temp.	6.7	8.6	10.9	13.5	15.9	18.8	20.3	21.3	19.9	16.9	12.4	7.9	
Ave. Temp.	10.2	11.3	14.9	17.4	21.3	22.7	25.2	26.6	25.4	21.3	16.2	11.6	
Rain fall	128.9	94.1	54.1	43.4	11.7	0	0	0	0	21.6	74.9	131.6	560.3

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Nablus

Tulkarm (83 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	16.1	19.2	21.7	24.9	27.4	29.6	30.9	32.1	31.1	28.8	24.6	18.3	
Min. Temp.	10.1	12.3	14.3	16.1	19.2	22.3	24.1	25.7	24.3	21.4	16.9	11.7	
Ave. Temp.	12.8	15.5	18.0	20.4	23.3	25.7	27.3	28.6	27.4	24.7	20.4	14.2	
Rain fall	175.6	148.3	24.2	29.7	0.0	0	0	0	0	32.3	28.9	168.5	607.4

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Tulkarm

Jericho (-260 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	20.2	23.2	27.1	31.7	34.8	38.0	39.7	40.1	37.8	34.0	27.4	21.7	
Min. Temp.	9.7	11.2	14.7	17.3	21.2	24.3	26.1	27.4	25.5	21.8	16.3	11.2	
Ave. Temp.	14.6	17.0	20.8	24.5	27.8	30.7	32.4	33.3	31.3	27.4	21.4	16.1	
Rain fall	52.0	27.0	18.0	8.9	11.3	0	0	0	0	8.5	23.7	28.8	178.1

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Jericho

Ramallah (856 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	11.7	14.1	17.1	21.4	23.9	26.4	27.7	28.8	27.0	24.2	17.9	16.1	
Min. Temp.	6.8	8.4	10.2	13.6	15.8	18.1	19.5	20.2	19.2	17.0	12.3	7.9	
Ave. Temp.	8.7	10.8	13.2	16.9	19.3	21.8	23.0	23.8	22.3	19.8	14.8	10.1	
Rain fall	108.5	85.8	65.9	41.7	11.0	0	0	0	0	24.5	98.6	130.2	566.1

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Ramalla

Jerusalem (750 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.													
Min. Temp.													
Ave. Temp.													
Rain fall	120.2	83.8	55.8	44.3	30.9	0	0	0	0	11.3	95.0	66.5	507.7

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Jerusalem

Bethlehem (776 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	12.3	14.9	18.3	23.2	25.8	28.8	30.1	31.1	29.0	25.7	17.9	14.2	
Min. Temp.	6.6	8.3	10.8	13.9	16.6	19.2	20.7	21.1	19.8	17.0	11.1	8.9	
Ave. Temp.	9.2	11.3	14.2	18.1	20.8	23.5	24.9	25.6	23.8	20.9	14.4	10.7	
Rain fall	133.0	85.6	62.5	29.5	10.8	0	0	0	0	11.0	97.5	74.4	504.7

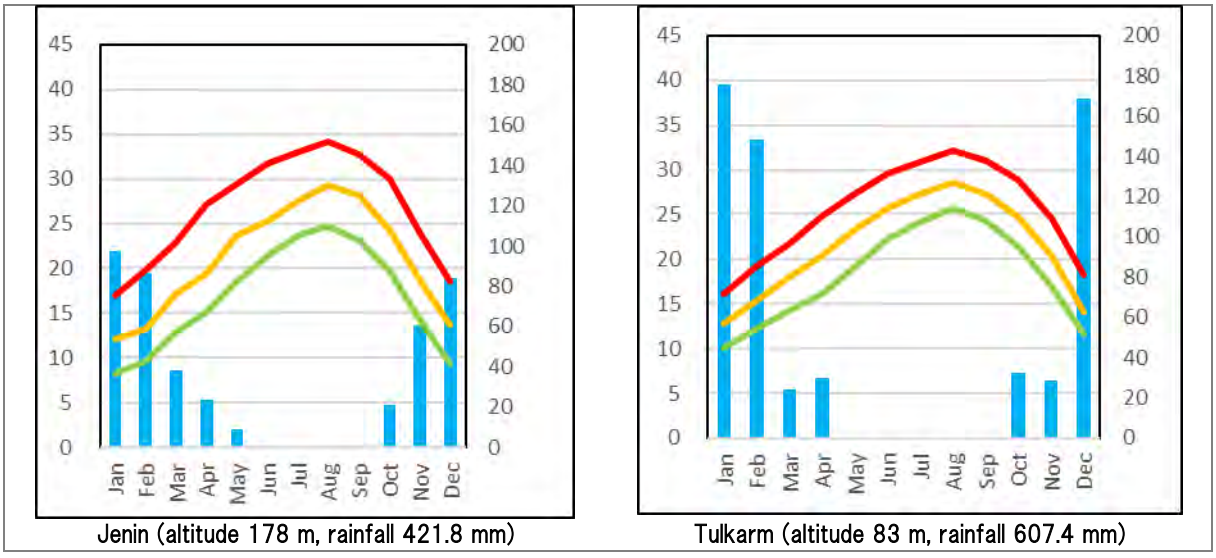
Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Bethlehem

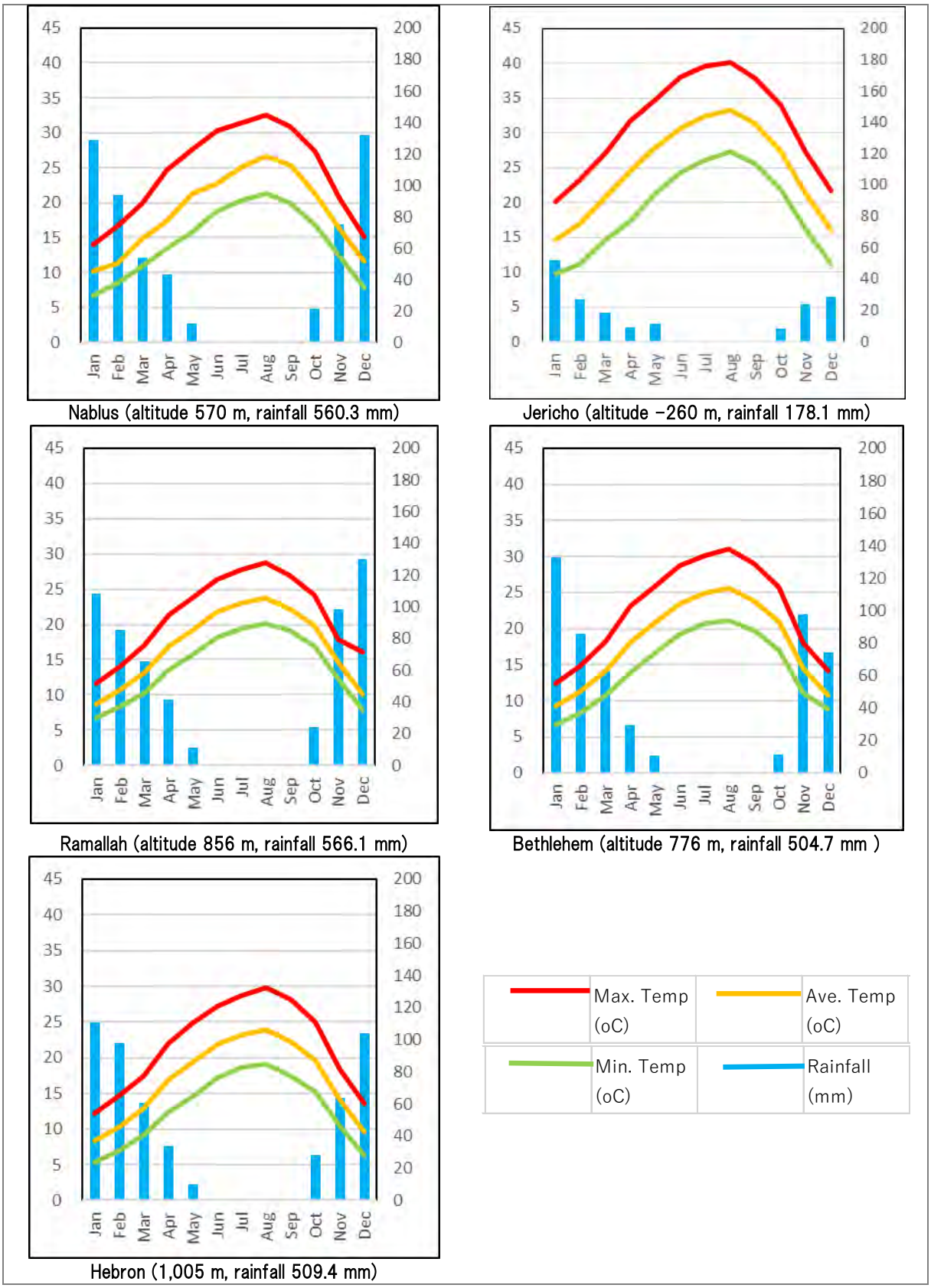
Hebron (1,005 m)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Max. Temp.	12.2	14.7	17.5	22.0	24.8	27.2	28.8	29.8	28.1	24.9	18.4	13.6	
Min. Temp.	5.3	7.0	9.1	12.3	14.5	17.2	18.7	19.0	17.4	15.2	10.4	6.3	
Ave. Temp.	8.4	10.2	13.0	16.9	19.3	21.9	23.2	23.9	22.2	19.6	14.2	9.7	
Rain fall	110.5	97.8	60.9	33.6	10.3	0	0	0	0	28.6	63.7	103.9	509.4

Source :Palestinian Meteorological Office

Figure Temperature and precipitation (Average of 2014-2016) in Hebron



Jenin (altitude 178 m, rainfall 421.8 mm)　　Tulkarm (altitude 83 m, rainfall 607.4 mm)



Source :Palestinian Meteorological Office

Figure: Temperature and precipitation at major points in the West Bank

7. Agricultural Production

7.1 Crop

Plant production in the Palestinian territories fluctuated from year to year due to rainfall quantities fluctuation on the one hand, and the high-yield years followed by low-yield years in olive trees. Despite this, plant production has not experienced significant changes over the last decade. No significant change occurred in terms of the relative distribution of varieties of different crops, which is characterized in general-and especially in the West Bank- by relatively low values crops and the low percentage of irrigated agricultural areas. Olive tree cultivation covers the largest agricultural area in the West Bank, occupying approximately 57% of cultivated land, while field crops, vegetables and other fruit trees occupy the remaining area, by 24%, 10% and almost 9% each, respectively. In the Gaza Strip, vegetable crops constitute 32% of the total cultivated area, followed by olive trees and other field crops and fruit trees, occupying 24% and 23% and 21% respectively of the total cultivated area in the Gaza Strip.

In addition to the aforementioned mentioned concentration of low-value crop production, the Palestinian plant production sector, especially in the West Bank, is suffering from low productivity per acre as a result of the nature of plant production on the one hand, and the low percentage of irrigated crops, on the other hand. According to a report prepared by the Quartet, the productivity per dunum in the Palestinian territory was estimated by 0.6 tons, while it reached 1.2 tons in Jordan and 1.4 tons in Israel. Dunum productivity in the Palestinian territories differs by region and types of crops cultivated.

Over the last ten years, the Palestinian territories have witnessed an expansion of plant production due to land reclamation and various agricultural development projects implemented by the Ministry of Agriculture and NGOs working in the agricultural sector. Many of these interventions focused and are still focusing on the horizontal expansion in agricultural production and increased agricultural cultivated areas. Despite the importance of the horizontal agricultural expansion for agricultural development and the protection of land from confiscation and settlements, the opportunities to continue this expansion are diminishing, if the competitiveness of other agricultural sub-sectors, as well as economic and social sectors is not taken into consideration. Hence, achieving transformation in plant production to keep pace with the continued growth in local demand, as well as with local and international market demands will also require a focus on improving agricultural technology and encouraging the vertical expansion of the plant production sector by improving agricultural services and investing in intensive agriculture that could achieve greater economic return on the one hand, and greater employment opportunities on the other hand.

Table: Number of agricultural holdings by district in the West Bank (2010)

Governorate (District)	Type of Holding			Total Number of Holdings
	Plant	Animal	Mixed	
West Bank	**65,267**	**10,879**	**14,762**	**90,908**
Jenin	10,512	1,521	2,629	14,662
Tubas	1,714	437	683	2,834
Tulkarm	6,595	544	896	8,035
Nablus	9,721	1,307	2,422	13,450
Qalqiliya	3,701	411	817	4,929
Salfit	3,979	210	497	4,686
Ramallah & Al-Bireh	8,817	656	1,070	10,543
Jericho & Al-Aghwar	598	804	210	1,612

Governorate (District)	Type of Holding			Total Number of Holdings
	Plant	Animal	Mixed	
Jerusalem	1,768	965	250	2,983
Bethlehem	4,915	1,198	1,293	7,406
Hebron	12,947	2,826	3,995	19,768
Gaza Strip	**13,909**	**3,362**	**3,131**	**20,402**
North Gaza	3,085	1,101	621	4,807
Gaza	1,920	616	333	2,869
Deir Al-Balah	2,038	534	499	3,071
Khan Yunis	4,401	631	1,094	6,126
Rafah	2,465	480	584	3,529
Palestinian Territory	**79,176**	**14,241**	**17,893**	**111,310**
West Bank	**65,267**	**10,879**	**14,762**	**90,908**

Source : Agricultural Census 2010 (Palestinian Central Bureau of Statistics)

The following table shows the cultivated areas of vegetables, fruit trees, and rainfed cropss in Palestine by district.

Table: Ranking of cultivated areas of vegetables, fruit trees, and rainfed crops by district in Palestine

	Vegetable crops					Horticultural crops				Field Crops			
	Area of land cultivated		Uncovered		Covered	Area of land cultivated				Area of land cultivated			
		(dunum)	Rainfed	Irrigated			(dunum)	Rainfed	Irrigated		(dunum)	Rainfed	Irrigated
	Total	127,256	(%)	(%)	(%)	Total	542,363	(%)	(%)	Total	241,936	(%)	(%)
1	Jericho	26,299	0.5	66.8	30.5	Jenin	102,719	96.7	3.3	Hebron	79,144	99.9	0.1
2	Tubas	20,320	12.0	65.8	21.3	Nablus	82,281	94.2	5.8	Jenin	55,366	99.3	0.7
3	Jenin	19,186	22.8	56.4	18.2	Hebron	70,290	97.9	2.1	Tubas	34,788	98.4	1.6
4	Nablus	11,354	8.6	69.9	21.3	Tulkarm	61,718	95.7	4.3	Nablus	27,286	97.1	2.9
5	Tulkarm	8,475	3.5	46.0	49.8	Ramallah	57,340	97.8	2.2	Khan Yunis	9,025	89.9	10.1
6	Rafah	7,870	0.6	56.6	42.7	Salfit	38,522	98.7	1.3	Qalqiliya	7,136	91.3	8.7
7	Khan Yunis	7,387	13.5	65.0	21.5	Qalqiliya	38,144	89.0	11.0	Ramallah	6,618	99.7	0.3
8	Hebron	7,309	49.7	34.0	15.8	Bethlehem	25,584	96.5	3.5	Bethlehem	4,703	99.9	0.1
9	North Gaza	6,652	2.6	73.1	24.3	Khan Yunis	10,151	11.5	88.5	Tulkarm	3,549	79.0	21.0
10	Deir Al-Balah	3,530	0.4	65.6	34.0	Tubas	9,980	88.6	11.4	Rafah	3,059	72.4	27.6
11	Qalqiliya	2,955	22.9	41.2	34.1	Deir Al-Balah	9,293	7.6	92.4	Jericho	2,971	27.3	72.7
12	Ramallah	1,925	62.1	34.2	3.0	Gaza	9,189	24.3	75.7	Deir Al-Balah	2,669	68.0	32.0
13	Bethlehem	1,584	44.6	41.5	12.3	Jerusalem	8,233	94.9	5.1	North Gaza	2,380	54.7	45.3
14	Gaza	1,238	2.7	88.5	8.8	Jericho	7,007	15.1	84.9	Jerusalem	1,714	99.8	0.2
15	Jerusalem	758	68.1	29.1	2.6	North Gaza	6,346	2.5	97.5	Gaza	897	79.3	20.7
16	Salfit	414	80.0	9.0	10.9	Rafah	5,566	7.8	92.2	Salfit	631	99.9	0.1

Source : Agricultural Census 2010 (Palestinian Central Bureau of Statistics)

In Palestine, the tendency of crop cultivation differs depending on the district, and a wide variety of vegetables are cultivated. The cultivation area of major vegetables by district (top 10 districts with the largest area) is summarized in the following table.

Table: Cultivation area of major vegetables by district in Palestine (top 10 districts in area)

	①Cucumber		②Squash		③Tomato		④Potato	
	Total	18,330.13	Total	17,530.55	Total	14,202.05	Total	13,814.05
1	Jenin	4,108.74	Jericho	7,603.48	Jericho	2,376.27	Tubas	3,490.54
2	Tubas	4,053.54	Tubas	3,234.30	Rafah	2,061.71	Nablus	3,153.30
3	Nablus	3,837.02	Jenin	2,438.20	Jenin	2,058.62	North Gaza	2,087.45
4	Tulkarm	2,259.61	Hebron	1,214.63	Hebron	1,596.37	Rafah	1,999.74
5	Jericho	1,103.30	Khan Yunis	729.15	Tubas	1,578.32	Khan Yunis	1,522.88
6	Rafah	951.70	Nablus	482.85	Khan Yunis	1,319.54	Jenin	479.50
7	Hebron	685.71	Deir Al-Balah	385.88	Tulkarm	725.09	Tulkarm	371.70
8	Qalqiliya	451.48	Ramallah	357.45	Deir Al-Balah	579.72	Qalqiliya	294.44
9	North Gaza	275.48	Tulkarm	229.16	Qalqiliya	520.89	Deir Al-Balah	213.61
10	Deir Al-Balah	176.06	Bethlehem	217.61	Nablus	362.02	Gaza	142.68

⑤Eggplant		⑥Cauliflower		⑦Maize		⑧Okra	
Total	8,981.25	Total	5,887.23	Total	5,444.77	Total	4,337.59
Jericho	3,879.85	Jenin	1,375.66	Jericho	3,829.60	Jenin	1,723.05
Tubas	1,771.50	Tulkarm	1,116.93	Tubas	892.50	Hebron	521.15
Jenin	644.28	Jericho	1,055.45	North Gaza	167.63	Khan Yunis	364.09
Tulkarm	636.88	Hebron	664.87	Nablus	150.67	Jericho	313.56
Deir Al-Balah	559.90	Qalqiliya	340.95	Tulkarm	109.31	Nablus	210.49
Nablus	327.55	Deir Al-Balah	310.82	Jenin	108.00	Qalqiliya	209.45
Rafah	282.14	Tubas	306.68	Deir Al-Balah	83.00	Tubas	198.80
North Gaza	272.97	Bethlehem	189.18	Qalqiliya	42.29	Deir Al-Balah	195.71
KhanYunis	208.59	Nablus	171.51	KhanYunis	25.65	Tulkarm	133.61
Qalqiliya	130.94	Ramallah	115.85	Rafah	17.97	Ramallah	99.54

	⑨Snake cucumber		⑩Broad bean(green)		⑪Peas(green		⑫Kidney bean(green)	
	Total	3,698.23	Total	3,372.07	Total	3,331.85	Total	3,303.20
1	Hebron	1,219.81	Jericho	1,087.40	Khan Yunis	1,034.23	Jericho	1,117.35
2	Jenin	481.39	Tubas	754.22	Rafah	695.21	Tubas	590.14
3	Ramallah	450.13	Jenin	501.47	Tubas	607.03	Jenin	480.03
4	Bethlehem	413.70	Nablus	248.49	Nablus	257.58	Tulkarm	473.77
5	Jerusalem	353.88	Khan Yunis	175.64	North Gaza	196.92	Hebron	195.66
6	Nablus	161.18	Rafah	108.85	Deir Al-Balah	111.63	North Gaza	116.54
7	Salfit	157.78	Ramallah	101.29	Qalqiliya	107.27	Qalqiliya	99.42
8	Tubas	155.03	Qalqiliya	86.83	Ramallah	91.78	Nablus	95.16
9	Jericho	98.90	Tulkarm	83.83	Tulkarm	79.92	Ramallah	54.35
10	Qalqiliya	96.94	Deir Al-Balah	55.93	Jenin	52.27	Bethlehem	45.01

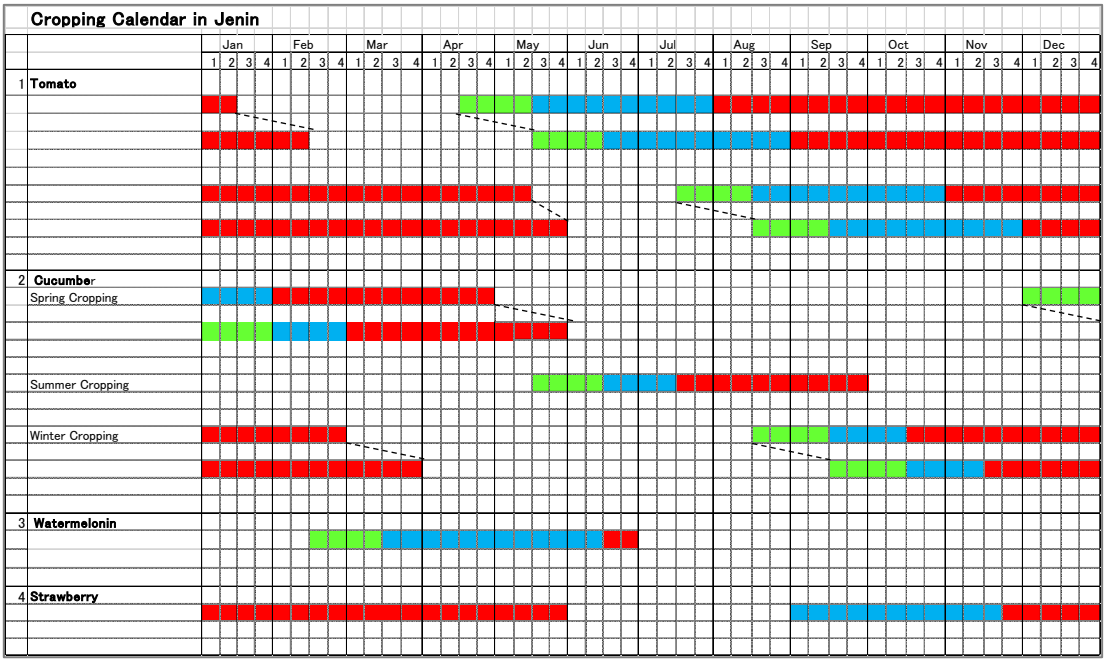
⑬Hot pepper		⑭Onion(green)		⑮White cabbage		⑯Jew's mallow	
Total	2,993.90	Total	2,895.26	Total	2,835.62	Total	2,458.56
Jericho	743.30	Nablus	811.02	Jenin	709.24	Jericho	704.50
Tubas	506.25	Jenin	602.14	Jericho	461.55	Tulkarm	438.89
Khan Yunis	309.83	Tubas	458.33	Tulkarm	393.80	Nablus	347.23
Rafah	308.73	Khan Yunis	261.99	Deir Al-Balah	223.22	Jenin	278.90
Jenin	300.33	Rafah	199.01	North Gaza	177.13	Rafah	277.95
Deir Al-Balah	226.79	Jericho	115.43	Hebron	175.74	North Gaza	197.57
Tulkarm	205.42	Deir Al-Balah	101.81	Tubas	169.50	Khan Yunis	67.09
Nablus	125.51	North Gaza	91.93	Gaza	129.83	Qalqiliya	52.49
North Gaza	88.49	Qalqiliya	64.39	Bethlehem	87.44	Deir Al-Balah	28.94
Gaza	66.85	Tulkarm	54.21	Qalqiliya	87.32	Tubas	24.39

	⑰Paprika		⑱Spinach		⑲Watermelon		⑳Muskmelon	
	Total	2,228.58	Total	1,255.23	Total	1,230.68	Total	1,219.87
1	Jericho	712.20	Jenin	340.52	North Gaza	529.33	Jericho	587.70
2	Tulkarm	654.54	Nablus	272.10	Khan Yunis	194.95	Tubas	221.25
3	Tubas	262.00	Khan Yunis	228.59	Jericho	138.00	Rafah	134.73
4	Jenin	218.31	Hebron	140.38	Rafah	132.97	North Gaza	87.90
5	Rafah	145.07	Tulkarm	66.05	Deir Al-Balah	62.34	Jenin	68.76
6	Nablus	112.33	Ramallah	36.16	Tubas	60.30	Deir Al-Balah	41.90
7	Qalqiliya	54.80	Bethlehem	32.73	Hebron	45.13	Khan Yunis	41.14
8	Hebron	22.19	Jericho	30.85	Jenin	43.92	Tulkarm	22.75
9	North Gaza	20.20	Tubas	23.25	Gaza	20.00	Nablus	9.00
10	Khan Yunis	7.37	Qalqiliya	22.19	Qalqiliya	1.40	Hebron	2.57

㉑Strawberry		㉒Carrot		㉔Parsley		㊴Cut flower	
Total	1,062.51	Total	841.96	Total	719.62	Total	47.35
North Gaza	1,036.99	North Gaza	558.63	Khan Yunis	227.75	Rafah	33.74
Tubas	13.30	Tubas	183.50	Tulkarm	158.95	Tubas	9.00
Jenin	6.50	Deir Al-Balah	63.98	Jenin	120.21	North Gaza	4.00
Tulkarm	4.00	Jenin	12.75	Hebron	65.50	Khan Yunis	0.56
Qalqiliya	1.50	Khan Yunis	7.00	Deir Al-Balah	31.68	Gaza	0.05
Rafah	0.10	Gaza	5.50	Ramallah	19.99	Jericho	0.00
Jericho	0.00	Hebron	4.90	Tubas	18.95	Nablus	0.00
Nablus	0.00	Tulkarm	2.00	Gaza	16.18	Qalqiliya	0.00
Bethlehem	0.00	Ramallah	2.00	Nablus	16.17	Tulkarm	0.00
Hebron	0.00	Qalqiliya	1.00	Qalqiliya	13.53	Jenin	0.00

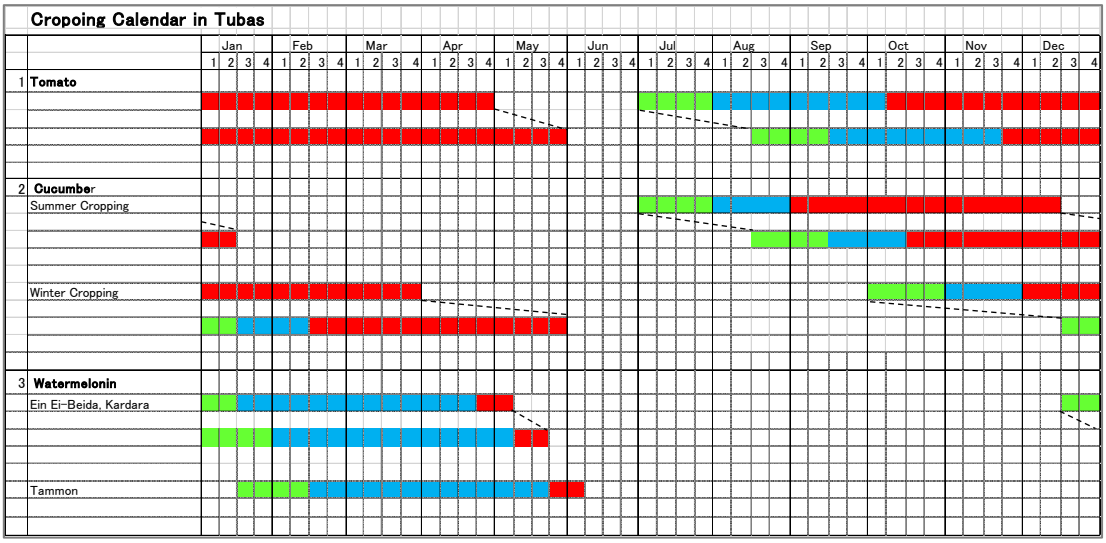
Source : Agricultural Census 2010 (Palestinian Central Bureau of Statistics)

The cropping calendar is useful information for extension officers to carry out an efficient agricultural extension because it allows farmers to grasp the flow of the entire cultivation in advance when making a cropping plan. Based on the interviews with each DOA, the calendar for planting major vegetables in the West Bank is organized as follows.



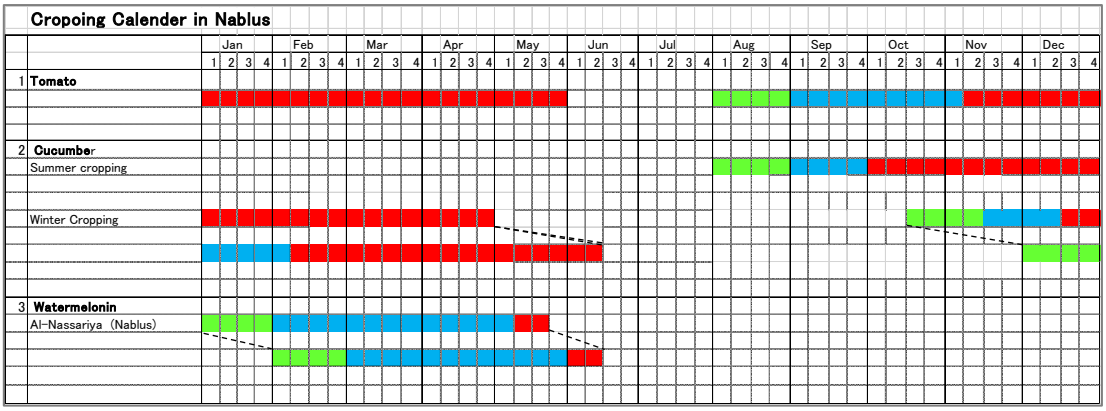
Source: DOAs

Figure: Cropping calendar of major vegetables in Jenin



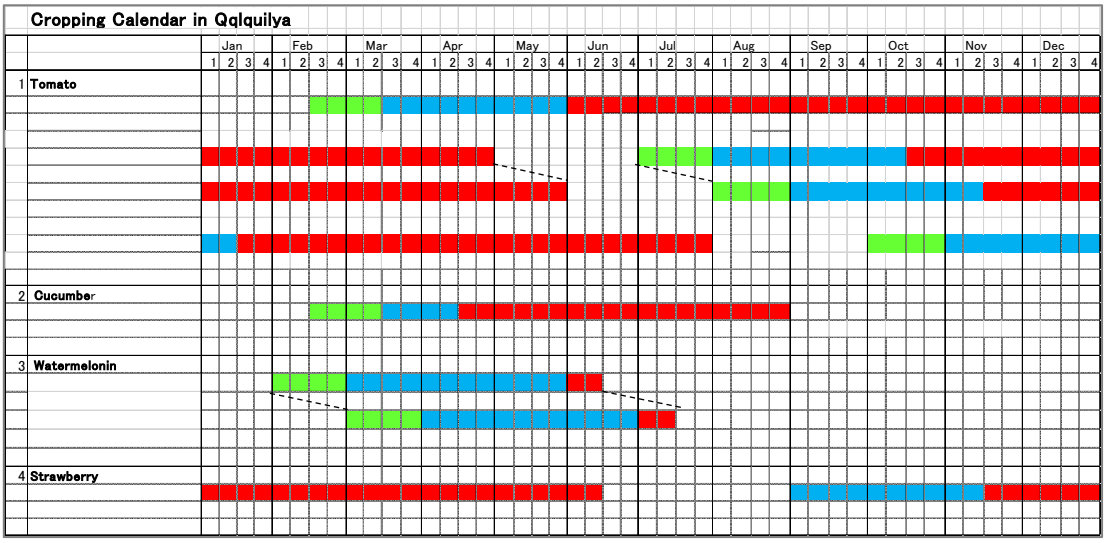
Source: DOAs

Figure: Cropping calendar of major vegetables in Tubas



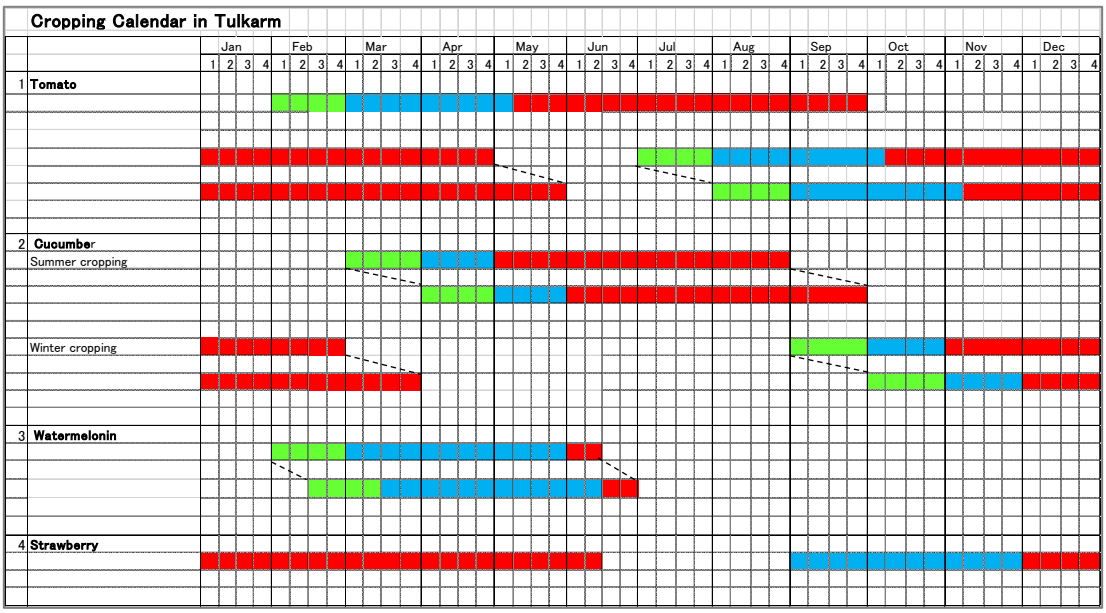
Source: DOAs

Figure: Cropping calendar of major vegetables in Nablus



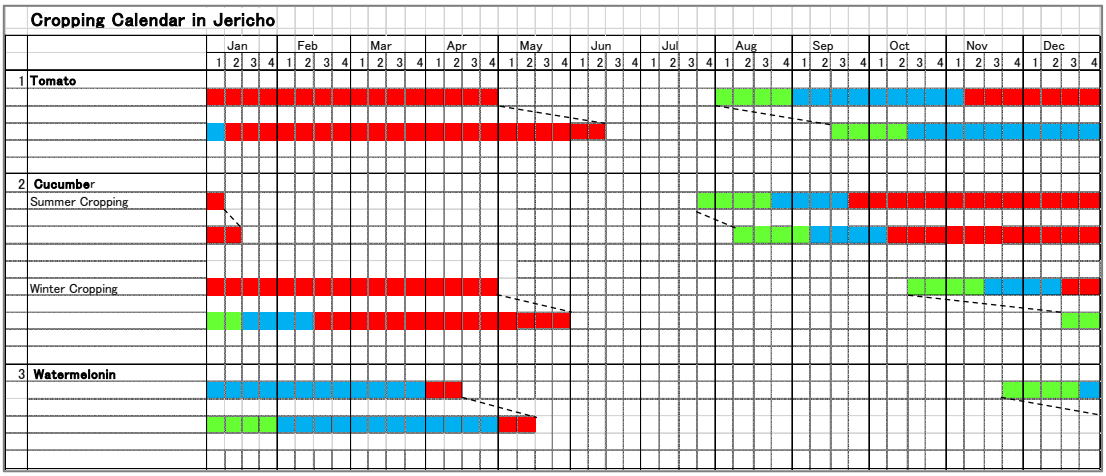
Source: DOAs

Figure: Cropping calendar of major vegetables in Qalkiliya



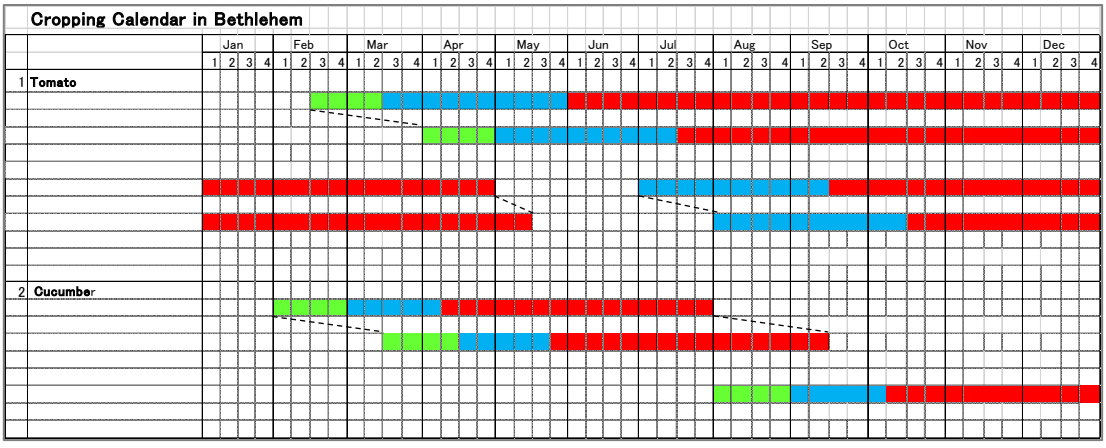
Source: DOAs

Figure: Cropping calendar of major vegetables in Tulkarm



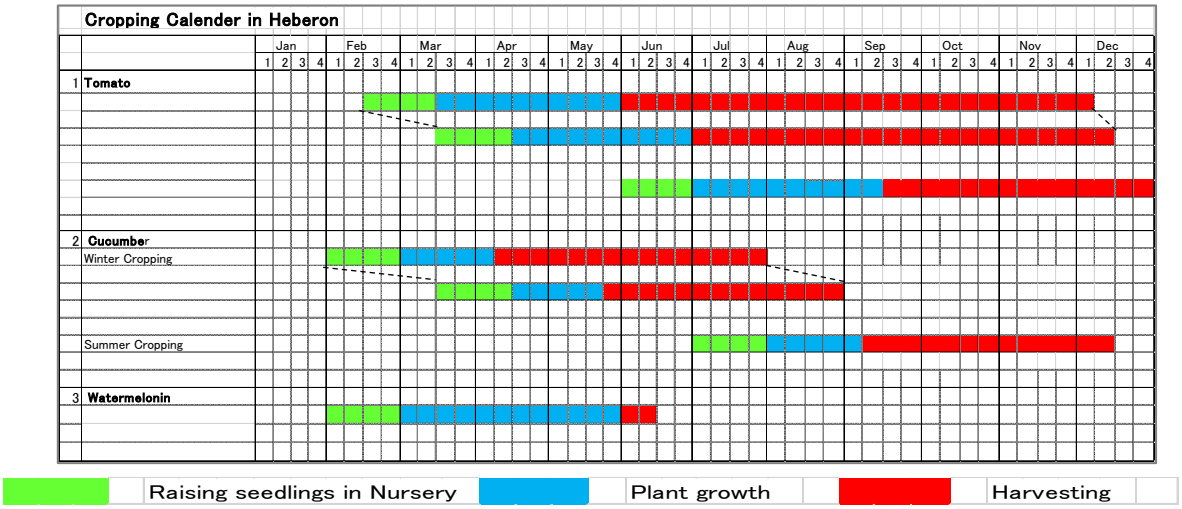
Source: DOAs

Figure: Cropping calendar of major vegetables in Jericho



Source: DOAs

Figure: Cropping calendar of major vegetables in Bethlehem



Source: DOAs

Figure: Cropping calendar of major vegetables in Hebron

7.2 Livestock[6]

(1) Overview of livestock in Palestine

Livestock production plays a major role in improving the lives of families in terms of providing a source of income and food (protein) to a large number of households in the Palestinian territories. The number of households depending primarily or secondarily on livestock is 32,200 households12. According to the results of the livestock survey conducted in 2013 and that falls within agricultural holdings, livestock population was estimated as follows: 33,980 cows, 730894 sheep, 215335 goats, 2058 camels, 32.5 million broilers (of which 994.6 thousand mothers), 1.8 million laying hens, 546.4 thousand turkeys, 19690 rabbits and 46,226 beehives. There is also a large number of domestic poultry, including 258.9 thousand domestic poultry, 285.6 thousand pigeons, and 5,000 turkeys, 29.1 thousand rabbits, 20 thousand quail birds, and 29.7 thousand of other types.13

Ruminant (cows, sheep and goats) depend on an intensive or semi-intensive breeding system for their livestock. Intensive production entails confining livestock in narrow spaces, where they are fed, watered and milked without being released to graze. This system is adopted mainly by cow breeders (87%) and to a lesser degree by sheep and goat breeders14. On the other hand, semi-intensive production (traditional) allows livestock to graze, while providing supplementary nutritional feed at the same time. Intensive production requires a higher capital investment in infrastructure and administrative systems than the semi-intensive production system. In addition, intensive production requires high technical experience and knowledge in farm management, which is an aspect absent in many farmers, especially the younger ones.

There are two types of production systems in the dairy sector: the traditional and industrial systems. The traditional production system includes small and medium-sized cattle breeders, who sell their products to consumers mainly at the local level, and cattle breeders who produce cow's milk annually.

[6] Source: Agricultural Census 2010

In the West Bank and the Gaza Strip, there are 13 ruminant slaughterhouses, including eight in the West Bank and five in the Gaza Strip, in addition to nine poultry slaughterhouses in the West Bank and one in Gaza.

In the poultry sector, there are also 19 hatcheries in the West Bank and 4 in the Gaza Strip, producing 64,525 chicks in 2012 (0.4324 million layer and 64.0916 million broilers) and 91,861,700 eggs ready for hatching (1,158,700 layer eggs and 90,703,000 broiler eggs).15 During the 2011/2012 agricultural year, the total production of poultry meat reached 72680 tons.16

Nutrition constitutes the main costs in livestock production, occupying 75-85% of total milk production costs, and 55-65% of the total costs associated with small ruminant animals. More than 95% of wheat feed and 85% of protein feed is imported from Israel to feed sheep and goats. Furthermore, most of feed and coarse fodder (high-cellulose feed, such as hay, straw and grass) to feed dairy cattle is imported from Israel. Feed supply, whether in terms of quality or quantity, is still unable to cover the existing need. And the continuous rise in feed prices over recent years led to increasing production costs, forcing many farmers to sell their livestock or use low-quality forage (low quality protein mixture) to feed their cattle. The significant reliance on imported inputs consequently resulted in the reduction of livestock productivity and its poor quality.

(2) Challenges in Palestinian livestock

The issues in livestock farming in Palestine that were identified through the field survey were as follows. In EVAP-2, it is necessary to keep these points in mind and carry out activities to raise the awareness of farmers.

It is expected to increase the income of livestock farmers through improvement of productivity of their livestock (sheep, goats, cattle and poultry). In order to achieve the higher productivity there're 3 components to be focused upon; 1) feed, 2) reproductive performance and 3) animal health. The current conditions and major challenges on the said components in Palestine are discussed as follows focusing on sheep rearing.

1) Feed

[Current conditions]

The livestock farmers graze their animals during winter and spring, and subsequently (when the pasture grass disappears), change the system to confinement rearing feeding them with wheat straw, mixed feed, concentrates and hay, which cost a large portion of the income of the farmers. Accordingly, EVAP-1 introduced the silage production technology utilizing residual leaves of dates, maize and other vegetables, which achieved a considerable reduction of the feed costs and improvement of animal nutrition.

[Challenges]

1. Any other available, potential feed stock for silage (such as residuals of olive)
2. Alternative feed for improvement of productivity of the livestock.

2) Reproductive Performance

[Current conditions]

In terms of reproduction of sheep, natural mating had been the sole means. Artificial insemination (AI) service was applied through EVAP-1 utilizing hormone treatment and fresh semen, and has been extending. As a result, it has been demonstrated that the productivity (milk yield, weight gain and twin rate) of the ewes reproduced by AI is higher than that of the ewes by natural mating. However, the extension of AI service is still limited to the certain areas of the country since semen cannot be stored frozen.

[Challenges]

1. Techniques for freezing semen manually and/or automatically utilizing a programmable machine (only for technical staff)
2. Methodology of progeny test for sheep and goat
3. Breeding plan to avoid inbreeding

3) Animal Health

[Current conditions]

The vaccination programs on the major infectious animal diseases (FMD, brucellosis, sheep pox, PPR and chlamydiosis) are under operation by the Directorate of Livestock to control epidemics in Palestine. Other ordinary diseases including parasite infections are usually taken care of by field veterinarians based on the requests from farmers. This year a new bylaw on veterinary medicine and drugs was executed in order to regulate animal drug application for food safety. However, it is still in the initial stage and its full enforcement needs strong commitment of the Directorate staff as well as the extension personnel.

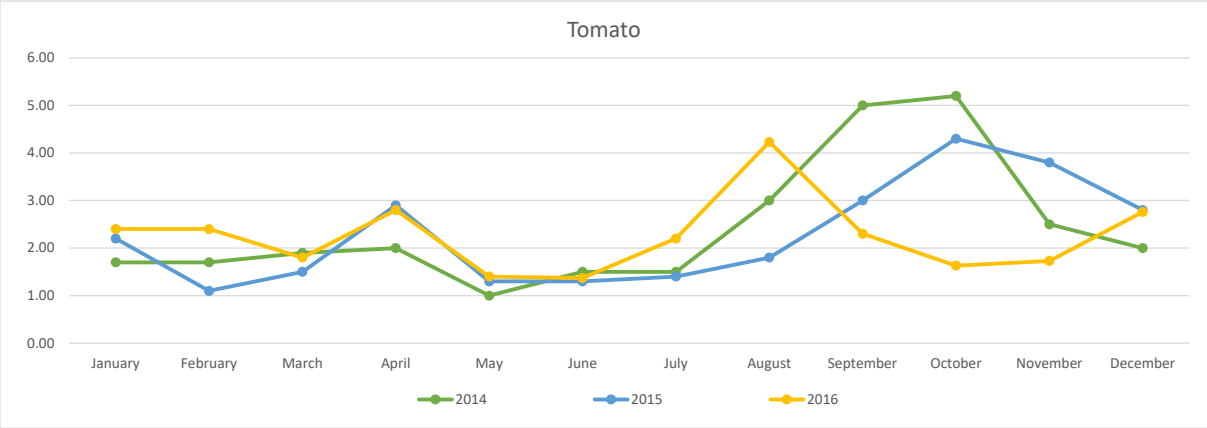
[Challenges]

1. Regulations for drug application (antibiotics, deworming drugs, hormones, etc.)
2. Extension techniques/materials on control of drug residuals in livestock products
3. Farm management to improve animal health conditions (e.g. management of newborn lams to decrease mortality)
4. Recent hot issues on animal diseases

8. Market of Agricultural Products

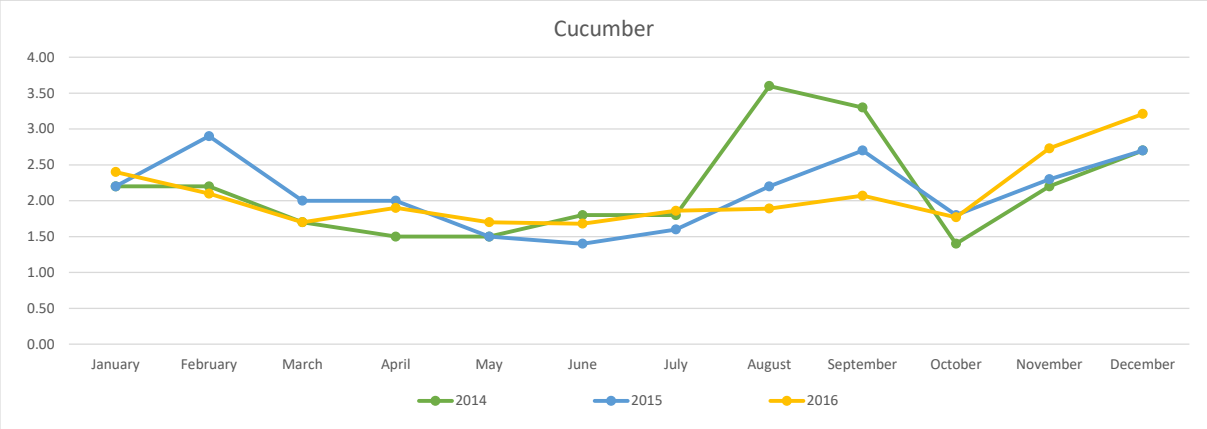
8.1 Trend of market prices of major agricultural products in Palestine

The price trends of major agricultural products in Palestine are shown in the following figure. For most farmers, the price of agricultural products fluctuates just by shifting the shipping time of agricultural products by about half a month. Therefore, it is expected that the farmers targeted by the project may be able to increase their agricultural income. In addition, some crops fluctuate greatly from year to year. Extension officers need to be fully aware of these trends as basic information so that they can give appropriate advice to farmers as needed when farmers formulate farming plans.



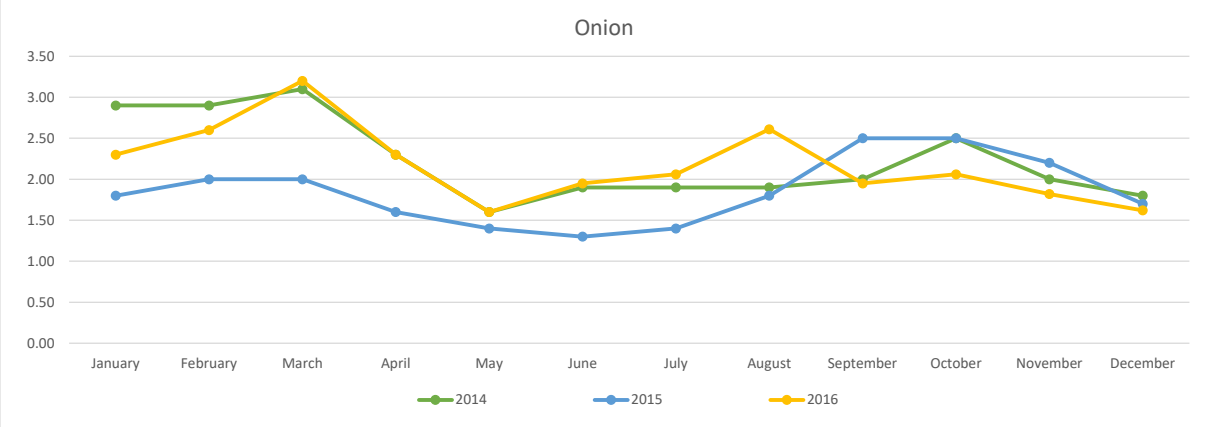
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of tomato



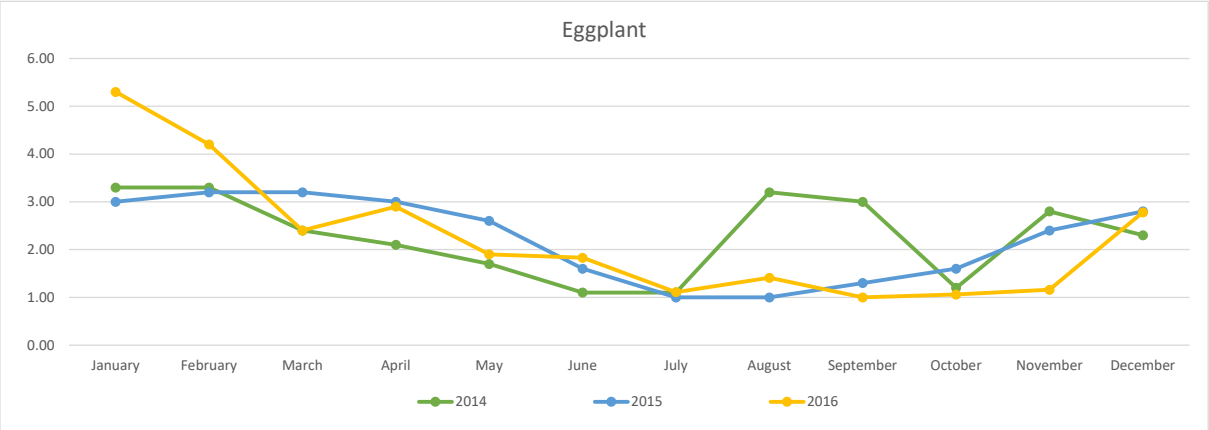
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of cucumber



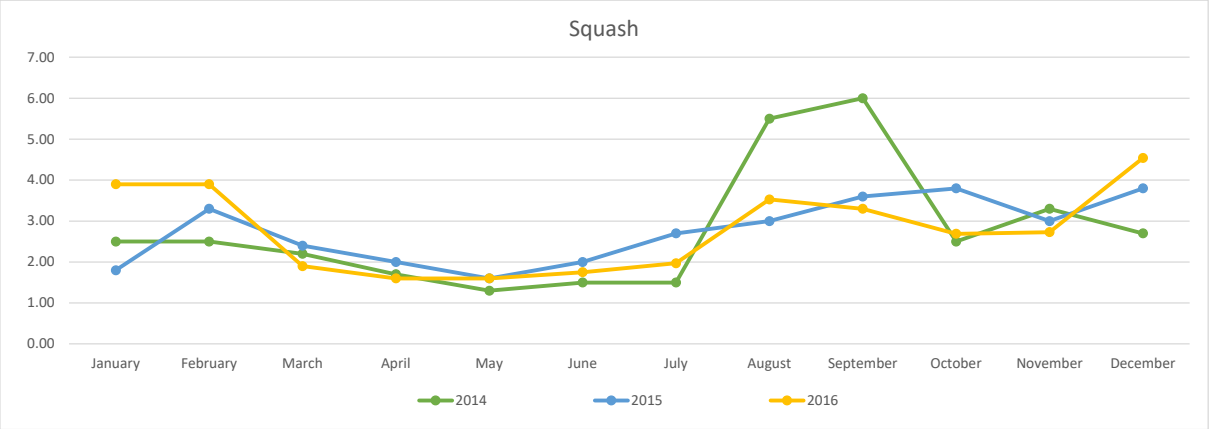
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of onion



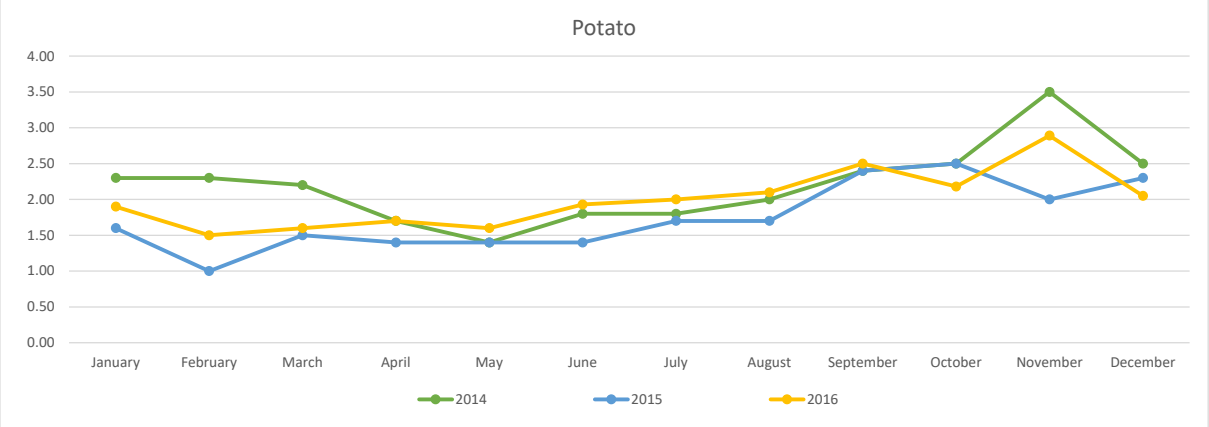
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of eggplant



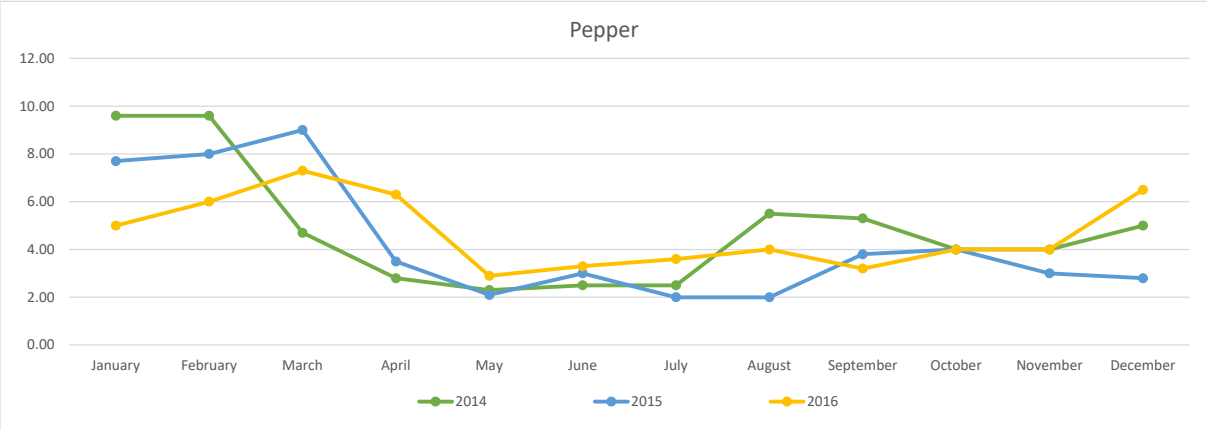
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of squash



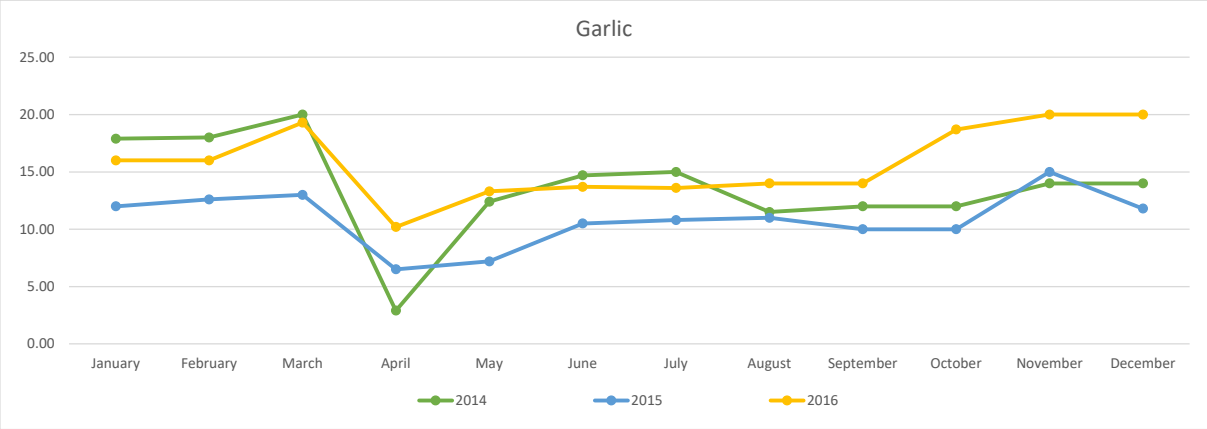
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of potato



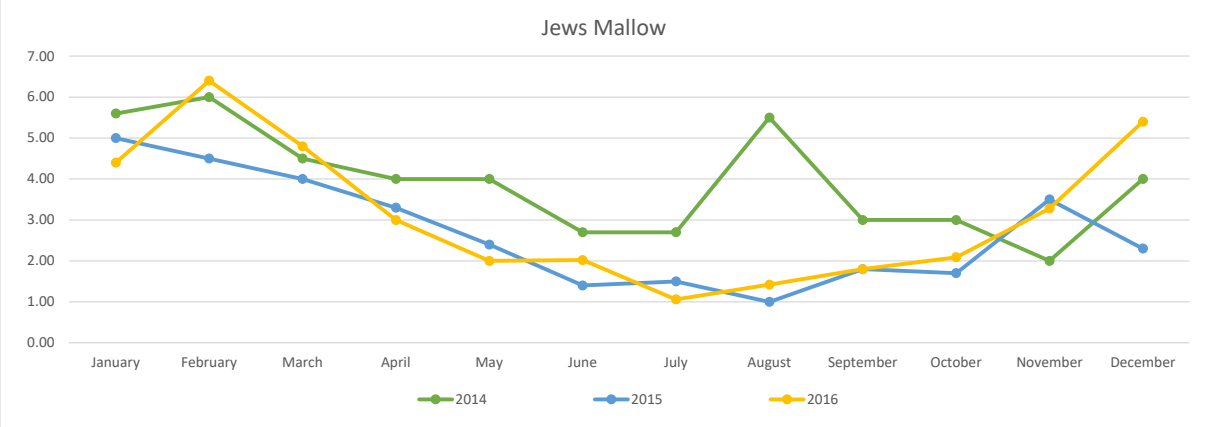
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of chili pepper



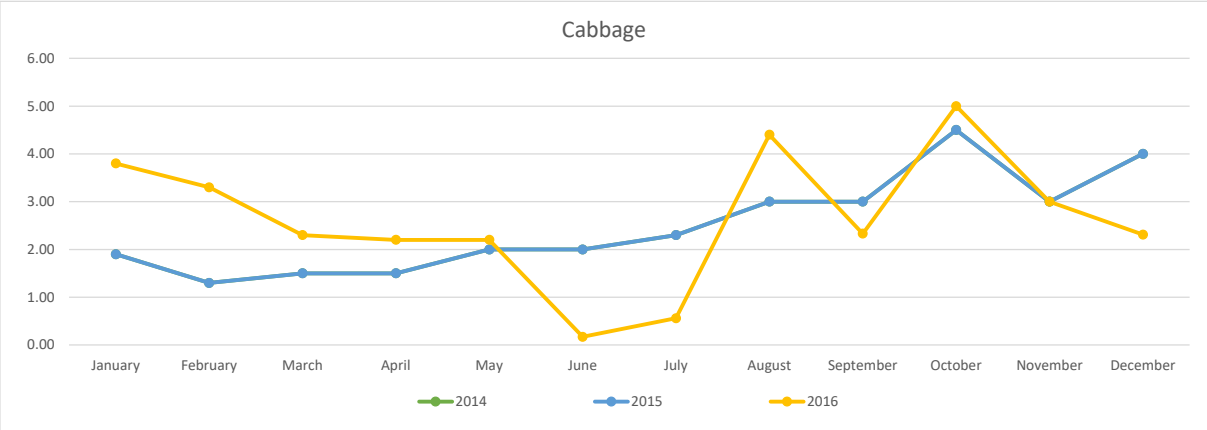
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of garlic



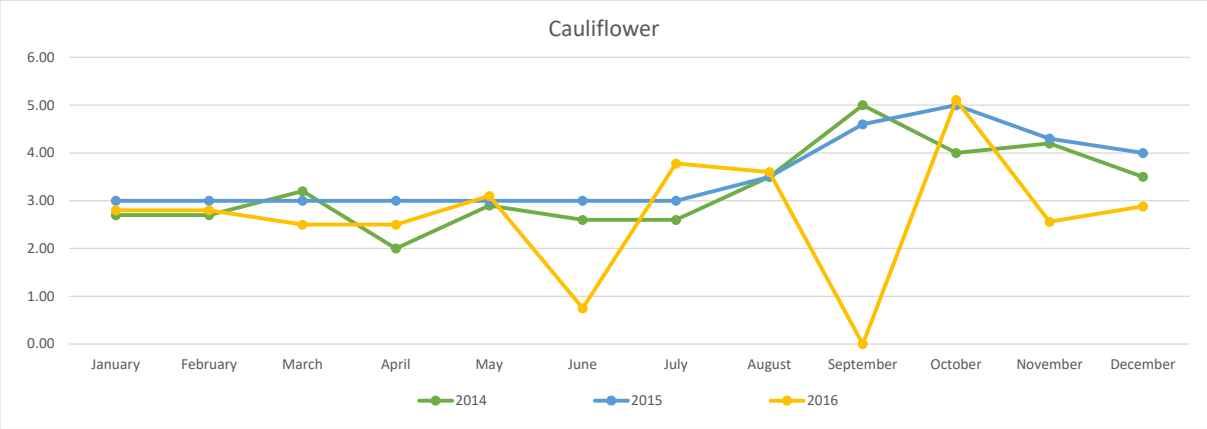
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of Jew's mallow



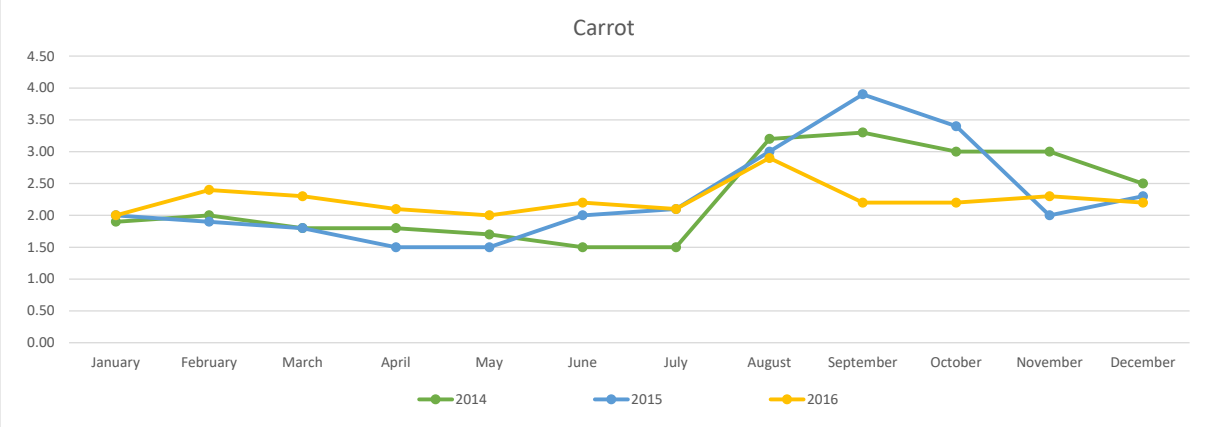
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of cabbage



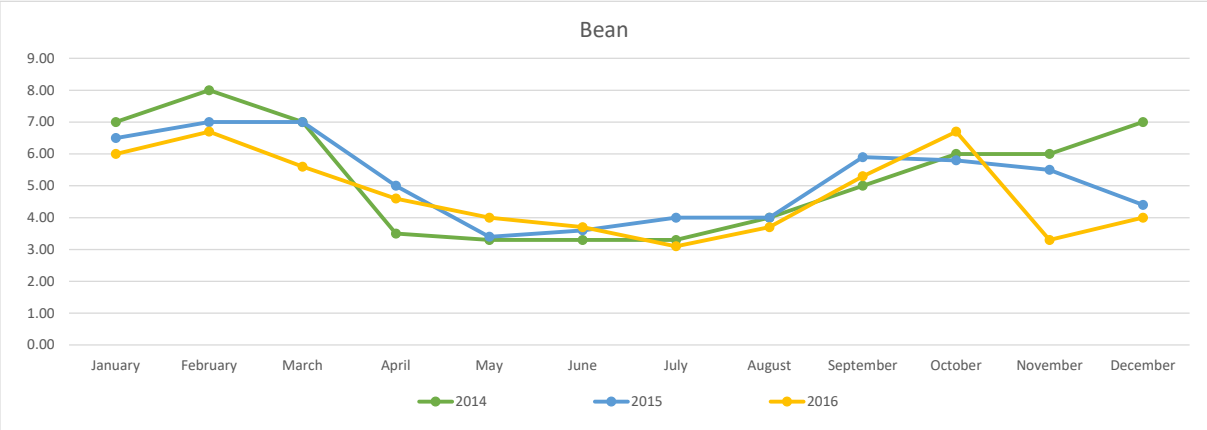
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of califlower



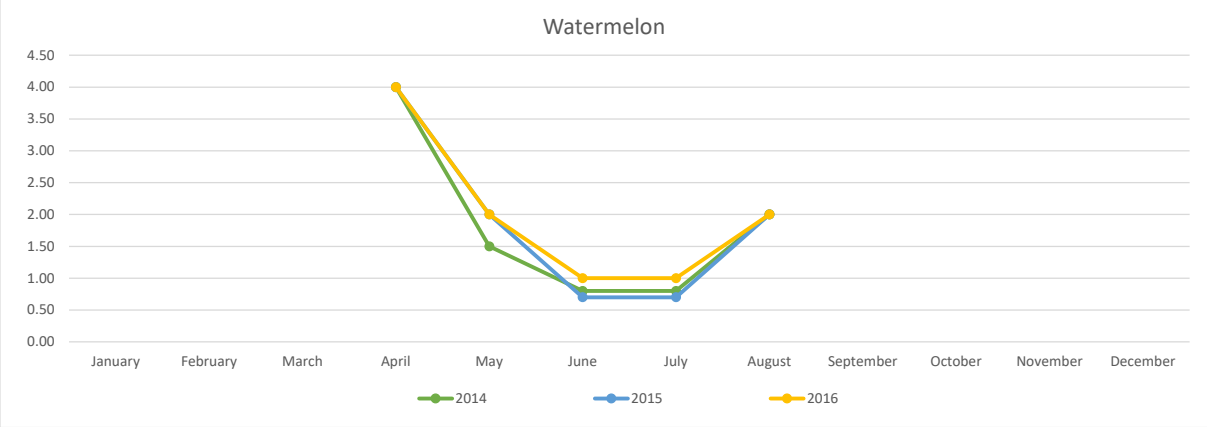
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of carrot



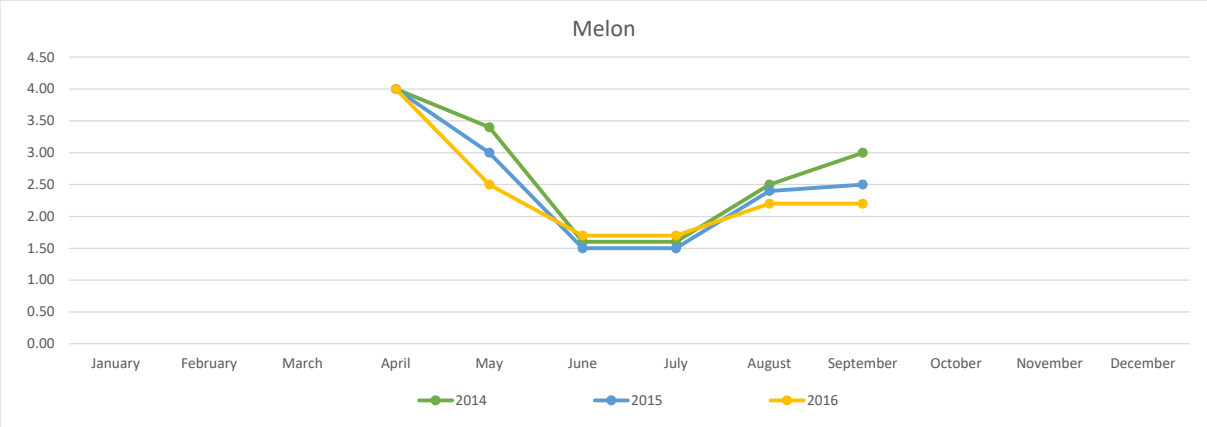
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of bean



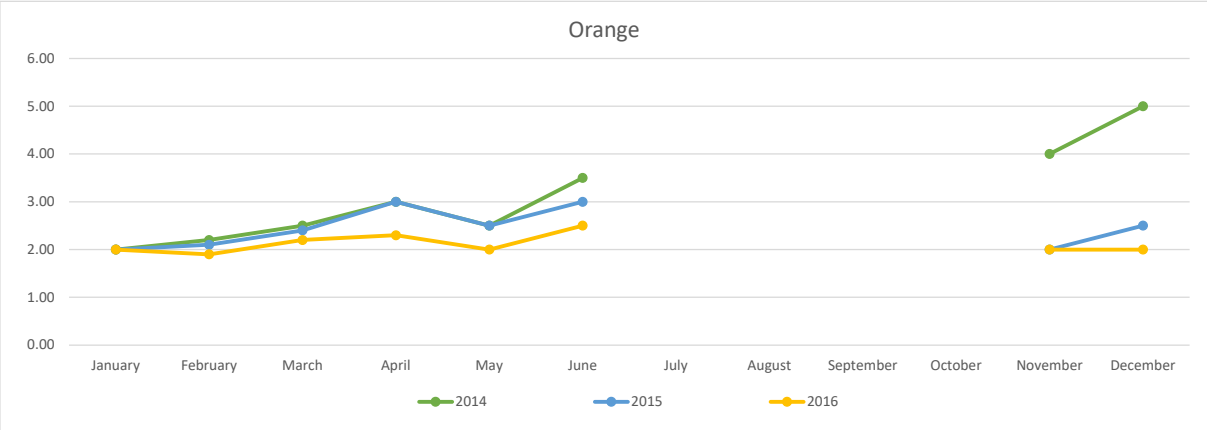
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of water melon



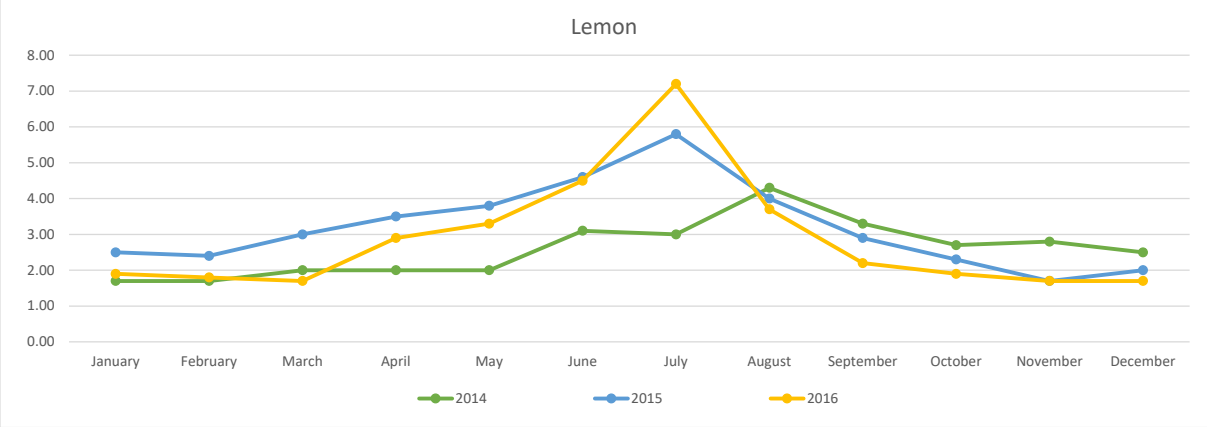
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of melon



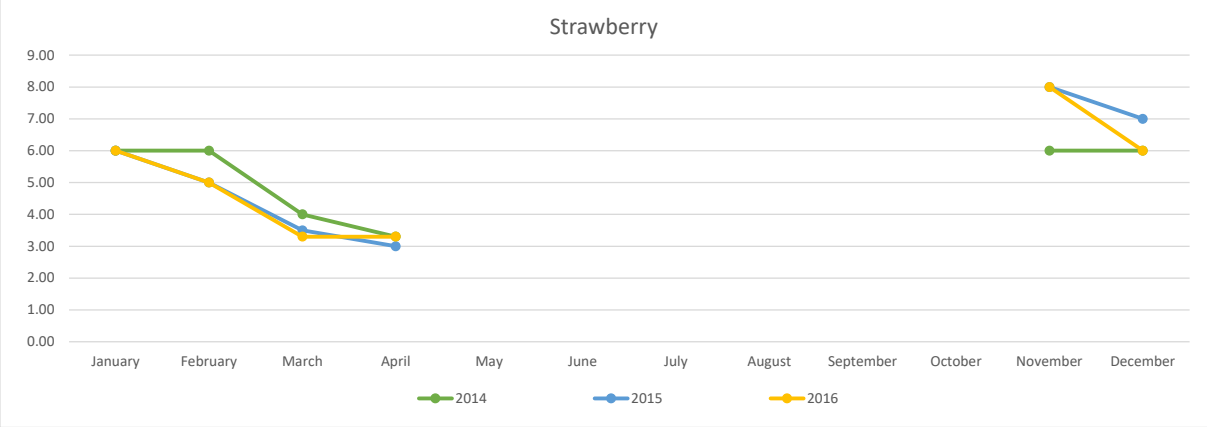
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of orange



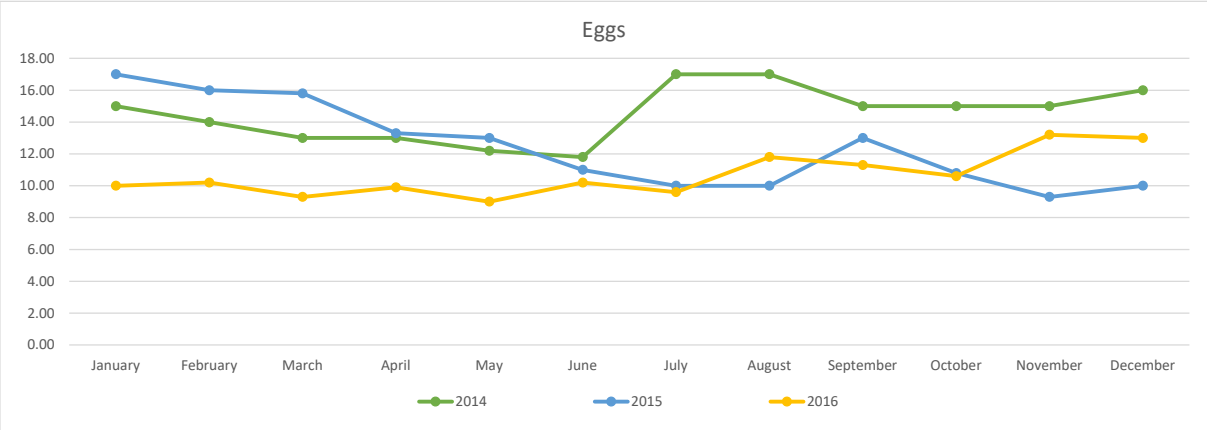
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of lemon



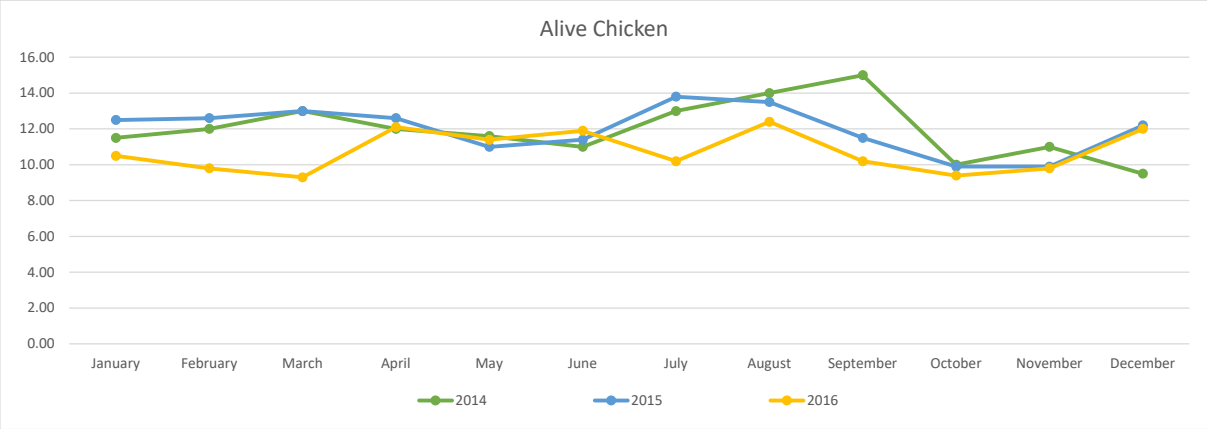
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of strawberry



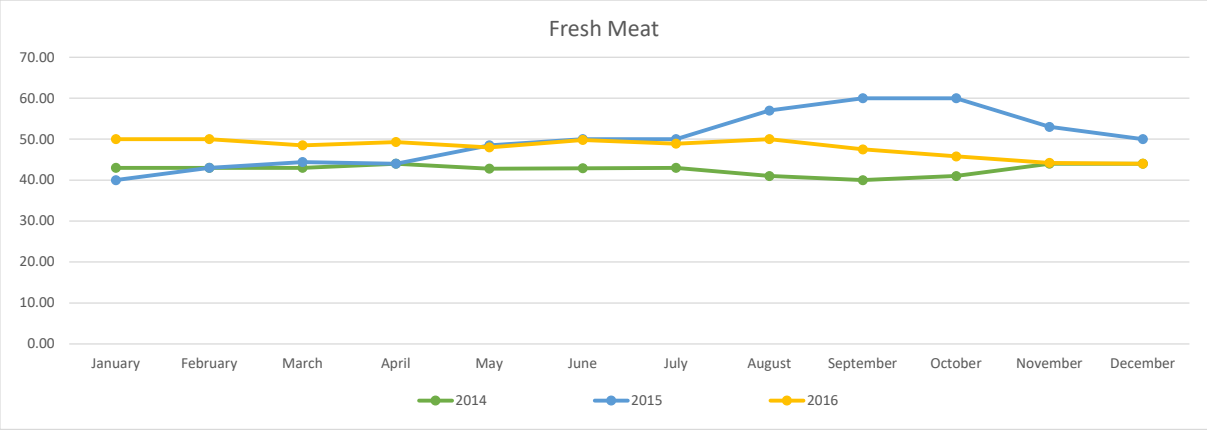
Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of eggs



Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of alive chiken



Source：General Directorate of Marketing & Passages, Ministry of Agriculture

Figure: Trends in market prices of fresh meat

9. Farmer Groups

The results of an inventory survey of farmer groups in the Jordan Valley area conducted by EVAP-1 are as follows. There are a total of 37 farmer groups, of which 31 groups (83.8%) are officially registered in the Ministry of Labor. The total number of farmers was 5,137, and the gender breakdown was 4,032 males (78.5%) and 1,105 females (21.5%). In Palestine, due to religious background, there are groups consisting only of men and groups consisting only of women. Looking at the farmer groups by gender, the mixed gender group was 15 groups (40.5%), the male group (27.0%), and the female group (32.4%). By agricultural products produced, livestock (33 groups, 89.2%) was the most common, followed by vegetables (30 groups, 81.1%), wheat (27 groups, 73.0%), and dates (24 groups, 64.9%). , Beekeeping (22 groups, 59.5%), and fruit trees (19 groups, 51.4%).

Table Summary of inventory survey results for farmer groups in the Jordan Valley area

#	Name of Farmer Group	Type	Registered	Member			Group Type			Farming Activity					
				Male	Female	Total	Mixed Group	Male Group	Female Group	Wheat	Vegetables	Fruits	Dates	Beehives	Livestock
1	Ein Al-bayda cooperative association for agriculture - Rehabilitation 2006	Cooperative	✓	63	0	63		✓		✓	✓	✓	✓	✓	✓
2	Ein Al-bayda cooperative association for craft industries	Cooperative	✓	0	54	54			✓					✓	✓
3	North Valley association for agriculture	Cooperative	✓	105	0	105		✓		✓	✓	✓	✓	✓	✓
4	Green association for agricultural cooperative	Cooperative	✓	75	0	75		✓		✓	✓	✓	✓	✓	✓
5	Atoof Cooperative Association for Agriculture and Irrigation	Cooperative	✓	29	3	32	✓			✓	✓	✓	✓		✓
6	No Name	Informal		15	14	29	✓			✓				✓	✓
7	Association of Central Valleys	Cooperative	✓	28	0	28		✓		✓	✓			✓	✓
8	Al-arqrbaniya women common association	CBO	✓	0	60	60			✓						
9	Al-nawagi agriculture pool	Informal		31	0	31		✓		✓	✓	✓			✓
10	Association of Savings and Credit for Rural Women's development	Cooperative	✓	0	70	70			✓						✓
11	Kardalahs' women Pool	Informal		0	15	15			✓					✓	
12	Feminist pool in the center village	Informal		0	40	40			✓	✓	✓	✓	✓	✓	✓
13	Ein Al-bayda and Kardalah Women	Informal		0	50	50			✓		✓				
14	Kardalahs' agriculture association for plants and medical herbs	Cooperative	✓	0	24	24			✓		✓				
15	Froosh Beit Dajan association for livestock	Cooperative	✓	34	0	34		✓		✓	✓		✓	✓	✓
16	Bardala's association for livestock	Cooperative	✓	63	0	63		✓		✓	✓		✓	✓	✓
17	Al-nasariya cooperative association for agriculture irrigation M.M	Cooperative	✓	29	3	32	✓			✓	✓	✓		✓	✓

#	Name of Farmer Group	Type	Registered	Member			Group Type			Farming Activity					
				Male	Female	Total	Mixed Group	Male Group	Female Group	Wheat	Vegetables	Fruits	Dates	Beehives	Livestock
18	Womens' cooperative association for saving and lending	Cooperative	✓	0	170	170			✓		✓	✓	✓	✓	✓
19	Froosh Beit Dajan cooperative association for greenhouses	Cooperative	✓	30	3	33	✓			✓	✓	✓	✓	✓	✓
20	Livestock association	Informal		24	0	24		✓		✓	✓		✓	✓	✓
21	Female farming association	Cooperative	✓	0	120	120			✓	✓	✓		✓	✓	✓
22	Jericho cooperative association for livestock	Cooperative	✓	0	18	18			✓	✓	✓	✓	✓		✓
23	Jericho and the Jordan Valley cooperative association for beekeeping	Cooperative	✓	40	5	45	✓							✓	✓
24	Nabatona agriculture cooperative association	Cooperative	✓	20	0	20		✓			✓	✓	✓		✓
25	Displaced Bedouin association for livestock	CBO	✓	110	40	150	✓			✓	✓	✓	✓		✓
26	Cooperative association for Ein Alsultan irrigation	Cooperative	✓	310	50	360	✓			✓	✓		✓		✓
27	Cooperative association for developing livestock in Bedouin society	Cooperative	✓	104	1	105	✓								✓
28	Cooperative association for farmers of medical plants and organic products	Cooperative	✓	22	30	52	✓			✓	✓	✓	✓		✓
29	Al-jeftlic association for food processing	Cooperative	✓	4	16	20	✓			✓	✓		✓		✓
30	Joint women association center in Auja - Fasayel	CBO	✓	0	50	50			✓	✓	✓	✓	✓		✓
31	Al-nueama youth association for agriculture	Cooperative	✓	0	22	22			✓	✓	✓		✓		✓
32	Agricultural Cooperative Association of Land	Cooperative	✓	150	0	150		✓		✓	✓	✓	✓	✓	✓
33	Agricultural Cooperative Association for developing Jordan Valley	Cooperative	✓	36	1	37	✓			✓	✓		✓	✓	✓
34	Jericho Society for Marketing Agricultural Products	Cooperative	✓	2,680	20	2,700	✓			✓	✓	✓	✓	✓	✓
35	Auja Cooperative Association for Rural Development	Cooperative	✓	5	16	21	✓			✓	✓	✓		✓	✓
36	Agricultural Cooperative Association roosters	Cooperative	✓	5	20	25	✓			✓	✓	✓	✓	✓	✓
37	Workers Union of Agriculture and food processing	Informal	✓	20	190	210	✓			✓	✓	✓	✓	✓	✓
		Total	**31**	**4,032**	**1,105**	**5,137**	**15**	**10**	**12**	**27**	**30**	**19**	**24**	**22**	**33**
			83.8%	**78.5%**	**21.5%**	**100.0%**	**40.5%**	**27.0%**	**32.4%**	**73.0%**	**81.1%**	**51.4%**	**64.9%**	**59.5%**	**89.2%**

Source : EVAP-1, Summary Report for the inventory Survey for Farmers Organizations in Jericho and Jordan River Rift Valley, November 2011

Attachment 3-1

وزارة الزراعه– الإداره العامه للإرشاد والتنمية الريفيه
مشروع تحسين الارشاد للزراعة ذات القيمة المضافة– (مشروع إيفاب المرحلة الثانيه)

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

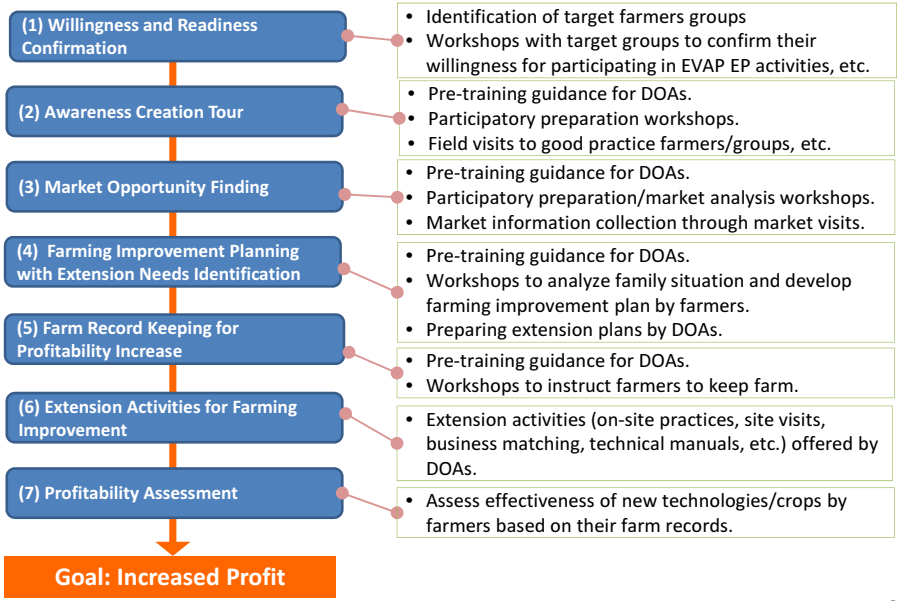
Step-1: Willingness and Readiness Confirmation

For Target Farmers

1. Objectives

(1) To make member farmers understand the concept of EVAP Extension Package and its related activities.
(2) To confirm interests/willingness of member farmers as well as to register them as the targets for activities of the Package.
(3) To confirm management system of the target group.
(4) To explain important information for effective and sustainable farming as well as to confirm situation of information use by member farmers.

2. Outline of EVAP Extension Package (Blue Line)



3. Requirements for Target Groups/their Members

(1) Requirements for Participating Farmers

(see Willingness Confirmation Sheet)

- To have high motivation for improving profitability of their agricultural products.
- To provide their basic data (name, contact number, cultivated areas, etc.) to responsible DOA.
- To participate in series of activities (meetings, workshops, training sessions, tours, etc.) arranged by the Package.
- To have necessary assets (land, facilities, equipment, etc.) and prepare inputs by themselves for practicing market-oriented/value-added agriculture activities.

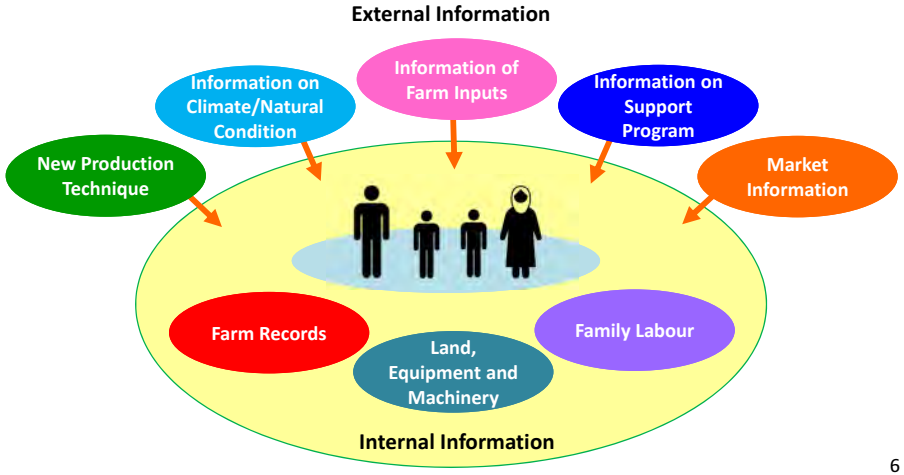
3. Requirements for Target Groups/their Members

(2) Requirements for Target Groups

- To choose a leader/contact persons who are also actual beneficiaries and have capacity and motivation to manage the target group.
- To secure communication system among members of the group.
- To have internal group meetings to facilitate information sharing and communication among members if necessary.

4-1. Important Information for Farming

Collecting external information and reflecting internal information are necessary for increasing farmers' profits by their effective and sustainable farming.



4-2. What is the Important Information?

Examples of the Information (1)

Category of Information		Example of the Information
External Information (Information to be collected from outside)	New Production Technique	New techniques to improve yield and quality and to reduce production cost, etc.
	Market Information	Information on market needs, price trend, consumers' needs, traders and retailers, etc.
	Information on Farm Inputs	Information on crop/livestock variety, seedlings, fodder, fertilizer and agro-chemicals and livestock medicines, etc.
	Information on Support Program	Information on government program, NGO's support program, subsidy, available public facilities, etc.
	Information on Climate/Natural Condition	Information on weather forecast, pest & disease prediction, frost & drought prediction, etc.
	Other Information	Information on agricultural policies of Israel, production in other competitive production areas, etc.

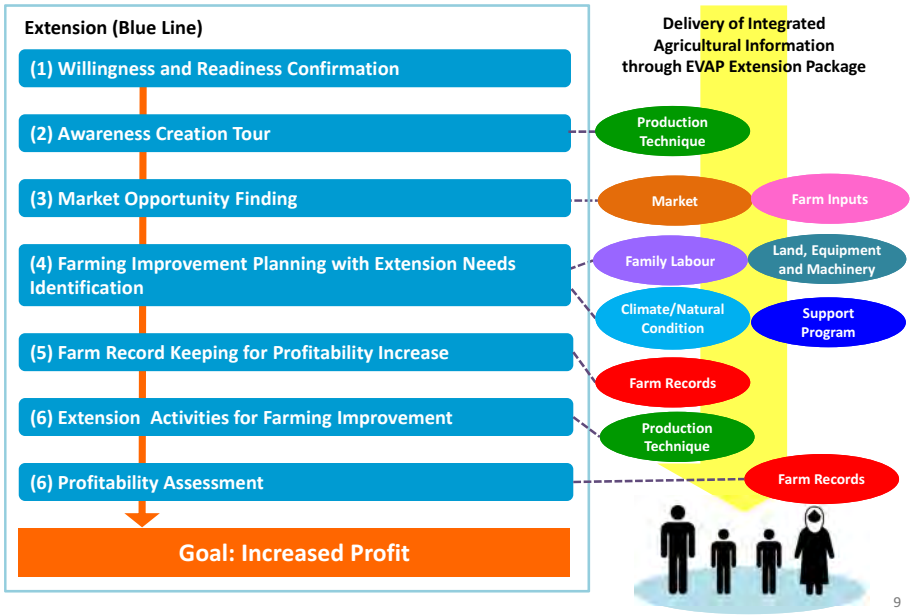
4-2. What is the Important Information?

Examples of the Information (2)

Category of Information		Example of the Information
Internal Information (Reflection or review by farmers themselves)	Labour	Workload among family members, labour employment, etc.
	Farm Records	Record of sales and income, cost of farm inputs, quantity of production, available cash for farming, etc.
	Land, Equipment and Machinery	Available farm land, land condition (pH, salinity level etc.), available equipment and machinery, etc.

EVAP is supporting the farmers to get those information through a series of trainings and tours. Even after EVAP, the farmers should continue to collect the external information and reflect the internal information into their farming with assistance from extensionists.

4-3. Extension Flow and Information to be Delivered



4-4. Situation of Information Use

Group Exercise (10 minutes)

Please review current situations of information use at your household using Format-1D.

Category of Information		Does your household collect those external information in every cropping seasons?	Who collect those information in your household?	From whom does your household collect those information?
External Information	New Production Technique	Yes or No		
	Market Information	Yes or No		
	Information of Farm Inputs	Yes or No		
	Information of Support Program	Yes or No		
	Information of Climate/Natural Condition	Yes or No		
	Others information	Yes or No (If any)		

4-4. Situation of Information Use

Category of Information		Does your household periodically reflect those internal information in every cropping seasons?
Internal Information	Workload among Family Members	Yes or No
	Farm Records	Yes or No
	Land, Equipment and Machinery	Yes or No
	Others	Yes or No (If any)

What information is lacking at your household?
What information should you collect in EVAP?

EVAP aims to bridge such information gap among family members through a series of trainings and tours.

4-4. Situation of Information Use

Examples of answers:

Category of Information		Does your household collect those external information in every cropping seasons?	Who collect those information in your household?	From whom does your household collect those information?
External Information	New Production Technique	Yes	Husband and Children	From other farmers in your village
	Market Information	Yes	Husband	From trader
	Information of Farm Inputs	No	-	-
	Information of Support Program	Yes	Wife	From DOA Extensionsts
	Information of Climate/Natural Condition	No	-	-
	Others (Specify: Israel agriculture policy)	Yes	Husband	Newspaper
Internal Information	Farm Records	No	-	-
	Land, Equipment and Machinery	No	-	-

EVAP

Format-1A

List of Farmer Groups

Name of DOA: **Sub-sector*1:**

#	Name of Farmer Group	Basic Information								
		Locality (Village)	Status of Group*2 1: Existing 2: To be newly formed	Registration 1: Registered 2: Non-registered	No. of Group Members			Major activity/crop	Name of Representative of Group	Tel Number
					Total	Male	Female			
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

<Note>

*1: Target sub-sector will be selected in accordance with those included in their Annual Extension Plans (e.g. Vegetable, Field crops, Horticulture/stone fruits, Livestock raising, Dairy products, Others (specify)).

*2: If groups will be newly formed but some of their basic information could be available or assumed, please write those information in corresponding columns.

Format-1B

Check on Candidate Target Farmer Groups

Name of DOA: **Sub-sector*1:**

#	Name of Farmer Group*2	(1) No. of members expected to participate in activities of EVAP EP a: 10-around 20 members b: Less than 10 or more than around 20 members c: Unknown	Assumed/Expected Target Members*3						Priority in consideration of the results of left items.
			(2) Size of members a: Majority are small/medium sized farmers b: Majority are large sized farmers c: Unknown	(3) Gender a: Women/women-dominant b: Men/men-dominant c: Mixed	(4) Major activities/crops	(5) Extension services from DOA a: Yes, they have received. b: No, they have not received. c: Unknown	(6) Provision of facility/equipment/materials by donor agencies a: Yes, they have received/will receive. b: No. c: Unknown	(7) Technical supports from donor agencies a: Yes, they have received/will receive. b: No. c: Unknown	
1	0								
2	0								
3	0								
4	0								
5	0								
6	0								
7	0								
8	0								
9	0								
10	0								
11	0								
12	0								
13	0								
14	0								
15	0								
16	0								
17	0								
18	0								
19	0								
20	0								

<Note>

*1: Target sub-sector will be selected in accordance with those included in their Annual Extension Plans (e.g. Vegetable, Field crops, Horticulture/stone fruits, Livestock raising, Dairy products, Others (specify)).

*2: Farmer groups listed in the Format-1A will be listed here in the Format-1B.

*3: Items to be checked are not for the original existing farmer groups but for the target farmers/members groups expected/assumed to participate in activities of EVAP EP.

Format-1C (List of Registration)

Group Information				
Group Name				
District		Village		
Name of Representative		Tel No.		
Name of Other Contact Person		Tel No.		

List of Members Registered as Participants for EVAP Extension Package

No.	Name	Sex (M/F)	Age	Tel No.	Remarks*1	Major Activity/Crop	Cultivated Area (dunums)		No. of livestock
							Open field	Greenhouse	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

<Note>

*1: If plural members per household are registered, write relations to firstly registered one (e.g. wife/son/daughter of the one with registration No. XX).

- Row of the table can be increased.

- Those who will join later will be added in the list.

Format-1D

Situational Analysis of Information Use

Name of Farmer: _____ Date: _____

Name of Farmer Group: _____

Category of Information		Does your household collect those external information in every cropping seasons?		If Yes, Who collect those information in your household?	If Yes, From whom does your household collect those information?	*Example of the information collected and used for farming*
External Information (Information to be collected from outside)	New Production Technique	❑ Yes	❑ No			New techniques to improve yield and quality and to reduce production cost, etc.
	Market Information	❑ Yes	❑ No			Information on market needs, price trend, consumers' needs, contact number of traders and retailers, etc.
	Information of Farm Inputs	❑ Yes	❑ No			Information on crop/livestock variety, price of seedlings, fodder, fertilizer and agro-chemicals and vaccine, etc.
	Information of Support Program	❑ Yes	❑ No			Information on government program, NGO's support program, subsidy, available public facility, etc.
	Information of Climate/Natural Condition	❑ Yes	❑ No			Weather forecast, pest & disease prediction, frost & drought prediction etc.
	Others (Specify_____)	❑ Yes	❑ No			Agricultural policies of Israel, etc.

Category of Information		Does your household periodically reflect those internal information in every cropping seasons?		*Example of the information collected and used for farming*
Internal Information (Reflection or review by farmer themselves)	Labor, Workload among Family Members	❑ Yes	❑ No	Workload among family members, labour employment, etc.
	Farm Records	❑ Yes	❑ No	Record of sales and income, cost of farm inputs, quantity of production, available cash for farming, etc.
	Land, Equipment and Machinery	❑ Yes	❑ No	Record of available farm land, land condition (pH, salinity level etc.), how to use available equipment and machinery effectively, etc.
	Others (Specify_____)	❑ Yes	❑ No	Family budget, expenditure for food, etc.

Willingness Confirmation Sheet

Outline of EVAP Extension Package

1. EVAP Extension Package is an extension method developed by the MOA through the JICA Project on Improved Extension for Value-Added Agriculture (EVAP).
2. The Package takes a group extension approach and requires participating farmers' self-reliance efforts.
3. The Package aims to improve profitability and income of participating farmers through facilitating their practices of market-oriented and value-added agriculture.
4. The Package will provide extension services on such technologies and know-hows as production, post-harvest, processing, marketing, farm management, gender, etc. to participating farmers. Provision of these services will be arranged through series of meetings, workshops, training sessions and tours.
5. The Package will not provide any financial supports, equipment and materials to the participating farmers.

Requirements for Participating Farmers

1. Participating farmers are required to have high motivation and make continuous efforts for improving profitability and income from their agricultural products with supports from the EVAP Extension Package.
2. Series of meetings, workshops, training sessions and tours will be arranged under the Package. Participating farmers shall basically attend all these activities. They shall give their basic data (name, contact number, cultivated areas, etc.) to responsible DOA before participating in the activities.
3. Participating farmers are required to prepare inputs (e.g. land for cultivation, materials/equipment/facility for cultivation, post-harvest, processing, marketing, etc.) for actual practicing market-oriented/value-added agriculture and its related activities.
4. Participating farmers are recommended to share all information obtained from the activities arranged by the Package with their spouses and other family members. Take-home assignments will be given to the attendees in some activities under the Package. These assignments shall be completed in cooperation with other family members who are involved in agriculture and its related activities.

Attachment 3-2

وزارة الزراعه– الإداره العامه للإرشاد والتنمية الريفيه
مشروع تحسين الارشاد للزراعة ذات القيمة المضافة– (مشروع إيفاب المرحلة الثانيه)

JICA

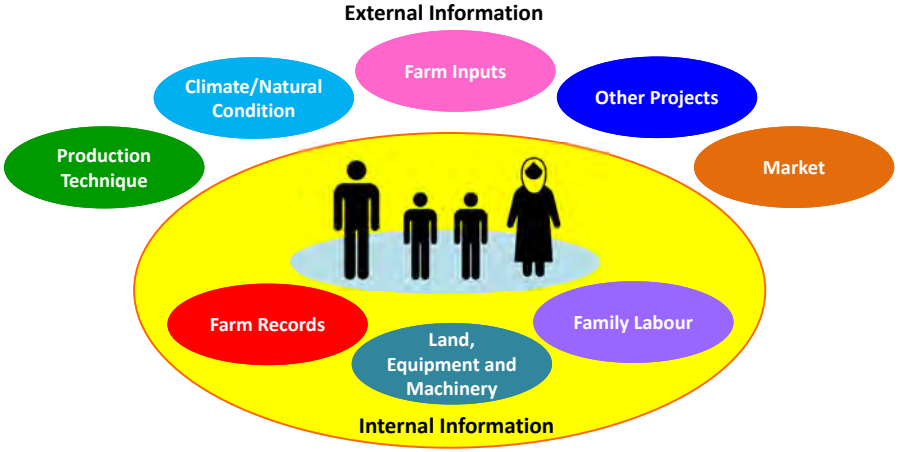
The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Step-2: Participatory Planning Workshop for Awareness Creation Tour

EVAP

1. Information and Value-Added Agriculture

Information is the key for successful Value-Added Agriculture.



Important Information for Value-Added Agriculture

2. Introduction

Purpose of Awareness Creation Tour:
- To visit Good Practice Farmers to see how they are using information for successful value-added agriculture.

Purpose of today's Workshop:
- To prepare a plan of "Awareness Creation Tour"

Who are "Good Practice Farmers (GPFs)"?
- Farmers making self-supporting efforts
- Farmers good at market oriented agriculture
- Farmers with small and medium sized activities
- Farmers with successful activities which other farmers can easily apply
- Famers enjoying good profit

Do you want to visit Good Practice Farmers?

3. Photos of Awareness Creation Tour



4. List of Good Practice Farmers

List of EVAP Good Practice Farmers in Gaza in EVAP eGuideline



https://ershad.moa.pna.ps/EVAPdatabase/GPF/AR/Gaza.html

List of EVAP Good Practice Farmers in West Bank in EVAP eGuideline



https://ershad.moa.pna.ps/EVAPdatabase/GPF/AR/index.html

5. Good Practice Farmers Introduction Sheets

Good Practice Farmers Introduction Sheet

- Detail information of Good Practice Farmers is explained in Good Practice Farmers Introduction Sheet

Front Page

- Introduction
- Market Opportunity and Turning Point
- Production
- Sale Arrangement
- Benefit



Back Page
(Reasons of Success and Recommendable Quick Impact Techniques)

- Marketing
- Production
- Sale Arrangement



6. Selection of Candidate Good Practice Farmers

Group Exercise (15 minutes)
Which Good Practice Farmers (GPFs) do you want to visit?

- Read the Good Practice Farmer Introduction Sheets carefully
- Select 3 (4 at a maximum) Good Practice Farmers you are interested in.

7-1. Plan of Awareness Creation Tour (1)

How many GPFs we can visit?

- No limitation but the tour is only in one day.
- If you visit too many GPFs, there is no time to discuss with them.
- If you visit GPFs in far place, you need to decrease number of GPFs to be visited (you need more time for transportation)
- Recommendable number is 3.

Who can join the tour?

- DoA can arrange a bus with XX seats.
- Number of participants need to be less than that.
- Please discuss and prepare list of tour participants.

7-2. Plan of Awareness Creation Tour (2)

Sample Plan

Title of Activity	Awareness Creation Tour	
Name of Group	ZZZZZZZ	
Date	July 7, 2017	
Departure Time	07:30	
Meeting Place	(1) Village Council Building of YYYY village (2) Village shop (3) None	
Number of Participants	(M) 15 (F) 5 (Total) 20	
Name and Tel No. of Representative	Mr. XXXXXX (0594 XX.XX.XX)	
Time Schedule	Time	Activity
	07:30-08:30 08:30-09:30 09:30-10:30 10:30-11:30 11:30-11:45 11:45-12:15 12:15-13:00 13:00-14:00 14:00-15:00	Transport from YYYY village to WWWW village in Jericho Site visit and discussion with GPF A Transport from WWWW village to VVVV village in Nablus Site visit and discussion with GPF B Transport from VVVV village to Nablus town Coffee break Transport from Nablus town to UUUU village in Tubas Site visit and discussion with GPF C Transport from UUUU village to YYYY village

7-3. Plan of Awareness Creation Tour (3)

Group Exercise (20 minutes)
Prepare your own plan

Use the flipchart (Common Format-B)

Title of Activity		
Name of Group		
Date		
Departure Time		
Meeting Place	(1) (2) (3)	
Number of Participants	(M) (F) (Total)	
Name and Tel No. of Representative		
Time Schedule	Time	Activity

8. Tour Participants Registration

Group Exercise (10 minutes)
Who are joining the tour?

- Confirm number of farmers who wants to join the tour (it is necessary for budgeting purpose).
- If there are farmers who are absent but willing to join the tour, it should be reported to the DoA.

Note:
- District Team needs to confirm availability of GPFs on the proposed date. If GPFs will not be available, date of the tour needs to be changed.

Common Format-B

Group Visit Planning

Title of Activity			
Group Name			
Date			
Departure Time			
Meeting Place	(1)		
	(2)		
	(3)		
Number of Participants	(Male)	(Female)	(Total)
Name and Tel No. of Representative			
Time Schedule	Time	Activity	

Attachment 3-3

وزارة الزراعه– الإداره العامه للإرشاد والتنمية الريفيه
مشروع تحسين الارشاد للزراعة ذات القيمة المضافة– (مشروع إيفاب المرحلة الثانيه)

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

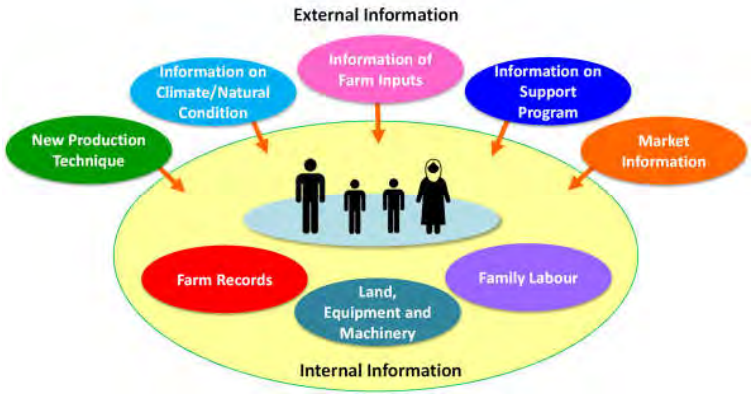
Step-3: Participatory Planning Workshop for Market Opportunity Finding -Vegetable Farmers-

EVAP

1. Purpose of the Workshop

- To understand the differences and characteristics of agricultural markets and farm inputs in Palestine
- To prepare a plan of market opportunity finding by farmers

Information is the key for successful Value-Added Agriculture.



Important Information for Value-Added Agriculture

2. What is Marketing?

Marketing is an analysis of market needs/characteristics and making strategy to sell your farm products before the cropping season.

Grasping Market Needs and Characteristics

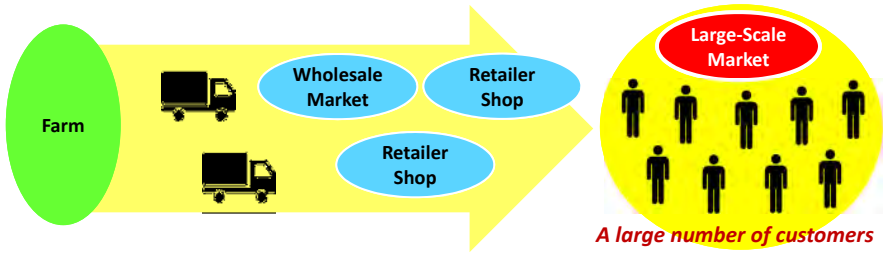
Making Marketing Strategies:
- What products to sell
- Where to sell the products
- When to sell the products
- How to sell the products
- How much the selling price of the products

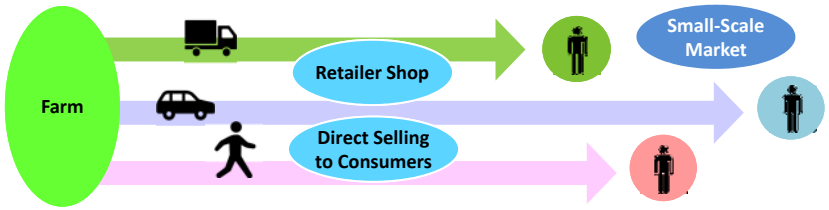
Production & Selling Products

Market

3. Categorizing Agricultural Markets

In general, there are two kinds of agricultural market in Palestine.

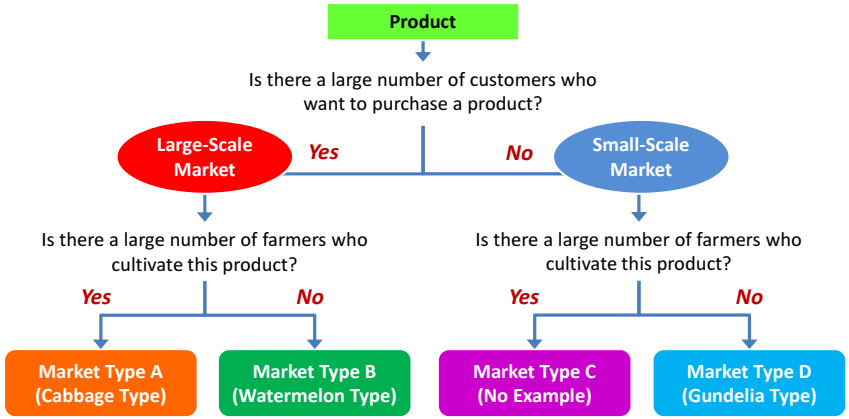




3. Categorizing Agricultural Markets

Agricultural market can be categorized to 4 kinds of market according to the number of customers and farmers.

Group Exercise (10 minutes) "Categorize your crops and (if any) Good Practice Farmers' crops in your area."



4. Characteristics of Market

Before selecting crops, market characteristics in each crop involved such as advantages and risks must be considered.

Type of Market	Market Type A (Cabbage Type)	Market Type B (Watermelon Type)	Market Type C (No Example)	Market Type D (Gundelia Type)
Charact eristics	• Normally, Farmers can sell large amount of products. • Sold amount and price are drastically change depending on demand/supply by season. • Most products are transacted by box. • Most products are monopolized by several major traders.	• Most of the products can be sold at higher price, BUT.... ✓ Production techniques tend to be rather difficult compared to other common crops. ✓ Farm inputs including labour and initial investment tend to be more than other common crops. • Most products are transacted by kg. • Traders themselves are willing to come and buy.	• Most of the products are either sold at much lower price or unsold.	• Most of products can be sold at stable price, BUT.... ✓ Increase of number of producer and amount of products cause higher decreases in sales and price. ✓ Loss of consumers causes large decreasing in sales.

5. Recommended Marketing Strategy and Important Market Information

Type of Product	Market Type A (Cabbage Type)	Market Type B (Watermelon Type)	Market Type C (No Example)	Market Type D (Gundelia Type)
Examples of Crops	Tomato, Almond, Grape (SPS)	Green peas, Avocado, Watermelon, Strawberry, Orange (Or), Squash (Baladi)	No product	Gundelia, Red Carrot, Organic thyme, Baby cucumber
Recommended Marketing Strategy	• Shifting transplanting time • Adjusting selling time • Group selling of products to increase selling price • Reducing production cost	• Increasing yield • Increasing quality of products • Improving packing and branding • Selling products to more profitable wholesale markets	• Changing products	• Continuing to meet customers' needs • Finding new customers • Direct selling to retailers and consumers
Important Market Information	**• Price fluctuation**	**• Quality of products • Price in more profitable wholesale markets in other areas**	**• None**	**• Quality of products • Demanded Volume**

- Market information is used for making marketing strategy and farming plan.
- Important market information depend on the market type.

6. Questionnaire Format for Market Opportunity Finding

Example

Questionnaire Format (1) –Format 3A-1		
Place: Nablus Wholesale Market Crop: Tomato Market Type (A, B or D) : A		
Name of Value Chain Actor: Mr./Ms. XXX Contact Number: 0224-1258		
Market Needs (Quality)	• Variety: Local	
	• Size: Large-size (200-250g)	1
	• Shape: Round, No cracking	
	• Color: Red Color and Gross	2
	• Uniformity: Variety, Size, Shape, Color	3
	• Firmness: Firm on Surface	
	• Heaviness: 80% Filled with jelly like substance around the seeds	
	• Freshness: within 3 days after harvesting	
	• Production Place: Tamoon	
	• Minimum Buying Amount (kg or box): 1,000 kg	
	• Other Price Determinants: Israel Market Holidays	
If any	• Mode of Payment: Cash	
	• Terms of Payment: Cash on delivery	

Prioritize Price Determinants (No.1,2,3)

6. Questionnaire Format for Market Opportunity Finding

Example

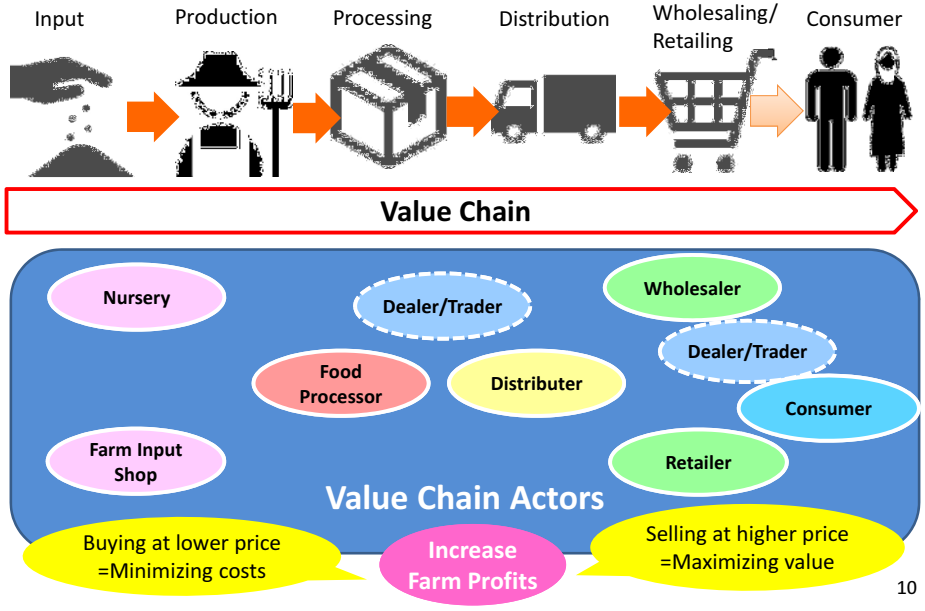
To be filled by each farmer based on his/her experience

Questionnaire Format (2)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Farmer's Selling Period	✓	✓	✓									
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Dominant Buying Price (NIS/kg or NIS/box) **OR** None (-) Low (+) Mid (++) High (+++)	1.5 OR +	1.3 OR +	1.8 OR +	2.2 OR +	1.6 OR +	2.1 OR +	1.6 OR +	3.0 OR ++	5.3 OR +++	5.8 OR +++	4.3 OR ++	5.6 OR +++

To be filled by each farmer based on the survey to the respective dealers

7. Selection of Cops and Value Chain Actors for Market Opportunity Finding



7. Selection of Cops and Value Chain Actors for Market Opportunity Finding

Group Exercise (15 minutes)

About what crops would you like to collect information of market needs and situations?

Select about 4 crops in total: 2 conventional crops (farmers face difficulty in marketing) and other 2 new crops (farmers want to introduce newly) ideally, but you can flexibly change the crops in market visit.

Which value chain actors would you like to visit in large-scale market and/or small-scale market?

How many value chain actors you can visit?

- No limitation but the market visit is only in one day.
- If you visit too many actors, there is no time to interview them.
- If you visit far place, you need to decrease the number of actors to be visited (you need more time for transportation)

8. Planning of Market Opportunity Finding

Group Exercise (15 minutes)

"Prepare your own plan for the market opportunity finding."

Name of Group	XXXXXXXX	
Date	March 10, 2017	
Departure Time	07:30	
Pick Up Place	(1) Village Council Building of YYYY village (2) XXX primary school of ZZZ village	
Number of Participants	20 (Male: 15) (Female: 5)	
Name and Tel No. of Representative	Mr. XXXXXX (0594 XX.XX.XX)	
Time Schedule	Time	Activity
	07:30-08:30 08:30-09:30 09:30-10:30 10:30-11:30 11:30-11:45 11:45-12:15 12:15-13:00	Transport from YYYY village to WWWW village Market visit and interview Transport from WWWW village to VVVV village Market visit and interview Transport from VVVV village to Nablus town Coffee break Transport from Nablus town to UUUU village

9. Tour Participants Nomination

Procedure:

- After the workshop, please inform the number of participants to DOA.
- If there are farmers who are absent but willing to join the visit, it should be reported to the DoA.
- Schedule may change if shop/market will not accept farmers' visit.
- If you find any difficulties in participating to the market visit, please consult with your group members or DOA.

Who can join Market Opportunity Finding?:

- DoA can arrange a bus for participants from the farmer group.
- Participants of group members can bring his/her children if he/she cannot ask anybody to take care of.
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10. Homework

Pick Up 1 Selected Conventional Crop and Fill In Questionnaire Format for Market Opportunity Finding based on Your Prediction"

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مشروع تحسين الارشاد للزراعة ذات القيمة المضافة– (مشروع إيفاب المرحلة الثانيه)

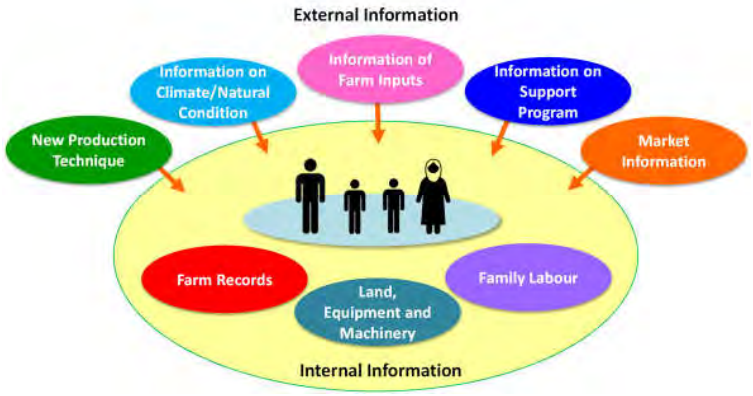
The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Step-3: Participatory Planning Workshop for Market Opportunity Finding -Livestock Farmers-

1. Purpose of the Workshop

- To understand the differences and characteristics of agricultural markets and farm inputs in Palestine
- To prepare a plan of market opportunity finding by farmers

Information is the key for successful Value-Added Agriculture.



Important Information for Value-Added Agriculture

2. What is Marketing?

Marketing is an analysis of market needs/characteristics and making strategy to sell your farm products in farm planning.

Grasping Market Needs and Characteristics

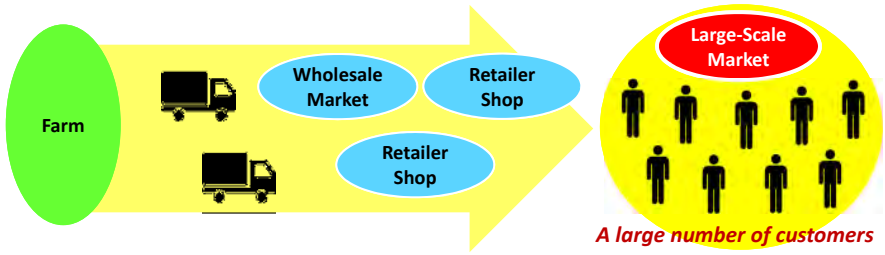
Making Marketing Strategies:
- What animals/products to sell
- Where to sell the animals/products
- When to sell the animals/products
- How to sell the animals/products
- How much the selling price of the animals/products

Production & Selling Animals/Products

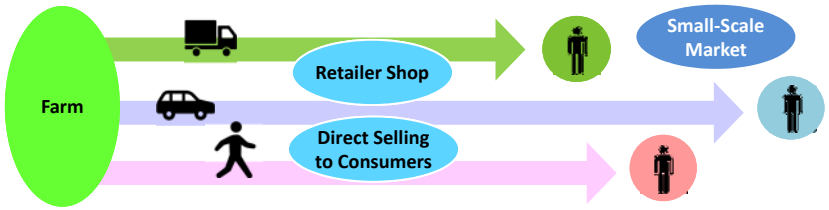
Market

3. Categorizing Agricultural Markets

In general, there are two kinds of agricultural market in Palestine.



A large number of customers



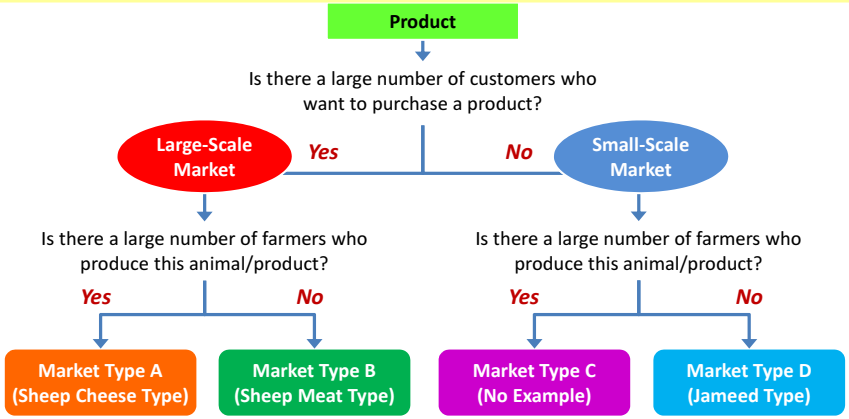
A small number of customers with various needs

3. Categorizing Agricultural Markets

Agricultural market can be categorized to 4 kinds of market according to the number of customers and farmers.

Group Exercise (10 minutes)

"Categorize your animals/products and (if any) Good Practice Farmers' animals/products in the most familiar market"



4. Characteristics of Market

Before selecting crops/products, market characteristics in each crop/ product involved such as advantages and risks must be considered.

Type of Market	Market Type A (Sheep Cheese Type)	Market Type B (Sheep Meat Type)	Market Type C (No Example)	Market Type D (Jameed Type)
Charac-teristics	• Normally, Farmers can sell a certain amount of products. • Sold amount and price are drastically change depending on demand/supply by season. • Most products are transacted by box. • Most products are monopolized by several major traders.	• Most of the products can be sold at higher price, BUT.... ✓ Production techniques tend to be rather difficult compared to other common crops. ✓ Farm inputs including labour and initial investment tend to be more than other common crops. • Most products are transacted by kg. • Traders themselves are willing to come and buy.	• Most of the products are either sold at much lower price or unsold.	• Most of products can be sold at stable price, BUT.... ✓ Increase of number of producer and amount of products cause higher decreases in sales and price. ✓ Loss of consumers causes large decreasing in sales.

5. Recommended Marketing Strategy and Important Market Information

Type of Product	Market Type A (Sheep Cheese Type)	Market Type B (Sheep Meat Type)	Market Type C (No Example)	Market Type D (Jameed Type)
Examples of Animals/ Products			No animal/product	
Recommended Marketing Strategy	• Adjusting selling time • Group selling of animals/products to increase selling price • Reducing production cost	• Increasing yield • Increasing quality of animals/products • Improving packing and branding • Selling animals/products to more profitable markets	• Changing animals/products	• Continuing to meet customers' needs • Finding new customers • Direct selling to butchers/retailers and consumers
Important Market Information	• **Price fluctuation**	• **Quality of products** • **Price in more profitable wholesale markets**	• **None**	• **Quality of animals/products** • **Demanded Volume**

- Market information is used for making marketing strategy and farming plan.
- Important market information depend on the market type.

6. Questionnaire Format for Market Opportunity Finding

Questionnaire Format (1) –Format 3A-2 Example

Place: Nablus Diary Retailer Shop Animal/Product: White Boiled Cheese Sheep
Market Type (A, B or D) : D

Name of Value Chain Actor: Mr./Ms. XXX Contact Number: 0224-1258

Market Needs (Quality)	• Variety: Local	
	• Size: Middle-size (200-250g)	
	• Shape: Square, No cracking	2
	• Color: Clear White	1
	• Uniformity: Color, Shape, Freshness	
	• Firmness: Soft	
	• Heaviness: 80% Filled	
	• Freshness: within 3 days after processing	3
	• Production Place: Jiftlik	
	• Minimum Buying Amount (kg or box): 1,00kg	
	• Other Price Determinants: Ramadan season and Eid holidays	
If any	• Mode of Payment: Cash	
	• Terms of Payment: Cash on delivery	

Prioritize Price Determinants (No.1,2,3)

6. Questionnaire Format for Market Opportunity Finding

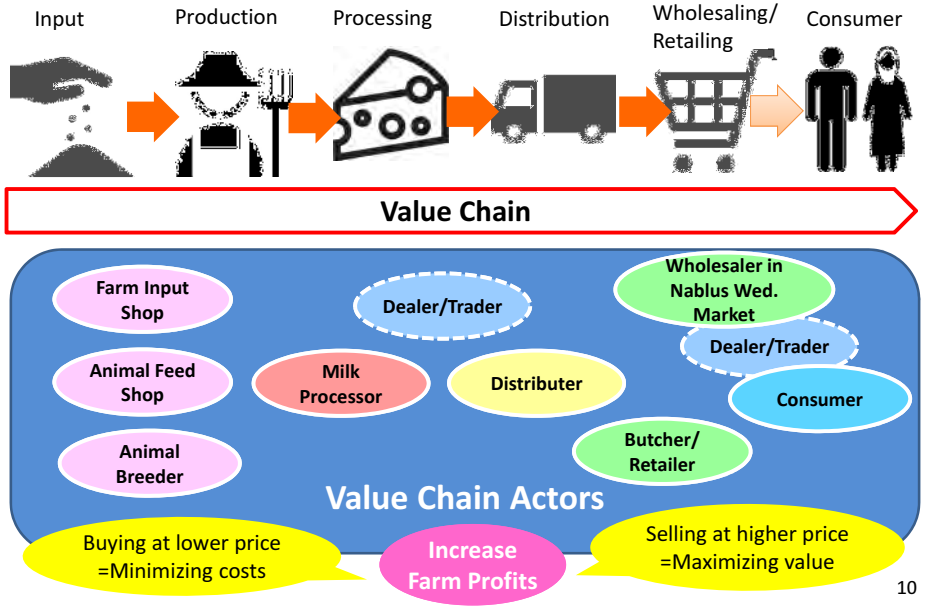
Example

To be filled by each farmer based on his/her experience

Questionnaire Format (2)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Farmer's Selling Period	✓	✓	✓									
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Dominant Buying Price (NIS/kg or NIS/box) **OR** None (-) Low (+) Mid (++) High (+++)	23.8 OR +	24.0 OR ++	24.1 OR ++	23.7 OR +	23.8 OR +	25.1 OR +++	23.9 OR +	24.6 OR ++	25.5 OR +++	24.6 OR ++	24.7 OR ++	25.1 OR +++

To be filled by each farmer based on the survey to the respective dealers

7. Selection of Products and Value Chain Actors for Market Opportunity Finding



7. Selection of Products and Value Chain Actors for Market Opportunity Finding

Group Exercise (15 minutes)

About what products would you like to collect information of market needs and situations?

Select about 4 products in total: 2 conventional products (farmers face difficulty in marketing) and other 2 new products (farmers want to introduce newly) ideally, but you can flexibly change the products in market visit.

Which value chain actors would you like to visit in large-scale market and/or small-scale market?

How many value chain actors you can visit?

- No limitation but the market visit is only in one day.
- If you visit too many actors, there is no time to interview them.
- If you visit far place, you need to decrease the number of actors to be visited (you need more time for transportation)

8. Planning of Market Opportunity Finding

Group Exercise (15 minutes)

"Prepare your own plan for the market opportunity finding."

Name of Group	XXXXXXXX	
Date	March 10, 2017	
Departure Time	07:30	
Pick Up Place	(1) Village Council Building of YYYY village (2) XXX primary school of ZZZ village	
Number of Participants	20 (Male: 15) (Female: 5)	
Name and Tel No. of Representative	Mr. XXXXXX (0594 XX.XX.XX)	
Time Schedule	Time	Activity
	07:30-08:30 08:30-09:30 09:30-10:30 10:30-11:30 11:30-11:45 11:45-12:15 12:15-13:00	Transport from YYYY village to WWWW village Market visit and interview Transport from WWWW village to VVVV village Market visit and interview Transport from VVVV village to Nablus town Coffee break Transport from Nablus town to UUUU village

9. Tour Participants Nomination

Procedure:

- After the workshop, please inform the number of participants to DOA.
- If there are farmers who are absent but willing to join the visit, it should be reported to the DoA.
- Schedule may change if shop/market will not accept farmers' visit.
- If you find any difficulties in participating to the market visit, please consult with your group members or DOA.

Who can join Market Opportunity Finding?:

- DoA can arrange a bus for participants from the farmer group.
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10. Homework

Pick Up 1 Selected Conventional Animal/Product and Fill In Questionnaire Format for Market Opportunity Finding based on Your Prediction"

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The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

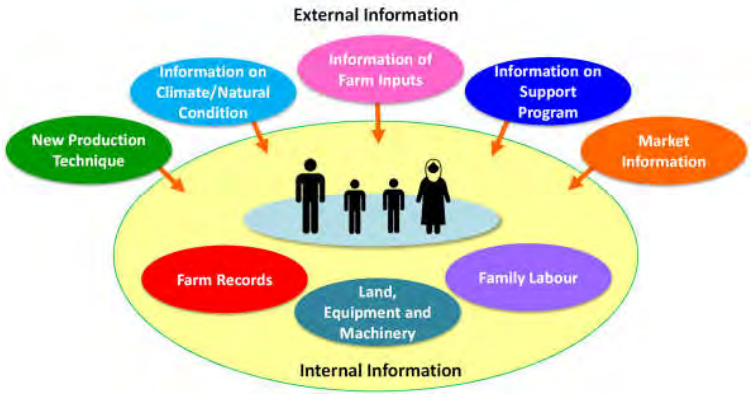
Step-3: Participatory Planning Workshop for Market Opportunity Finding -Fruit Farmers-

EVAP

1. Purpose of the Workshop

- To understand the differences and characteristics of agricultural markets and farm inputs in Palestine
- To prepare a plan of market opportunity finding by farmers

Information is the key for successful Value-Added Agriculture.



Important Information for Value-Added Agriculture

2. What is Marketing?

Marketing is an analysis of market needs/characteristics and making strategy to sell your farm crops before the cropping season.

Grasping Market Needs and Characteristics

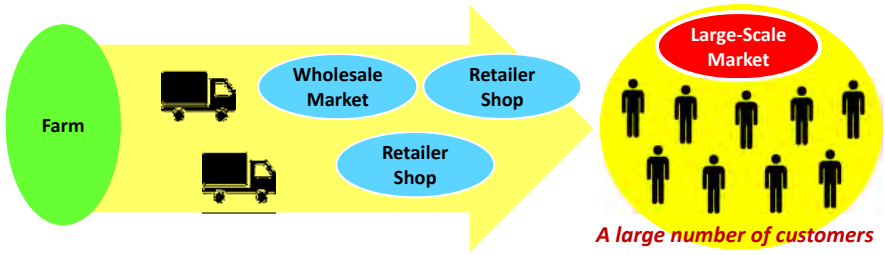
Making Marketing Strategies:
- What products to sell
- Where to sell the products
- When to sell the products
- How to sell the products
- How much the selling price of the products

Production & Selling Products

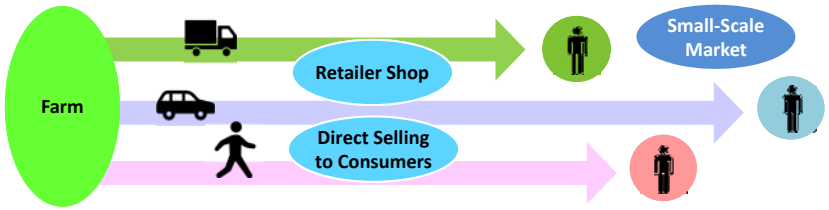
Market

3. Categorizing Agricultural Markets

In general, there are two kinds of agricultural market in Palestine.



A large number of customers

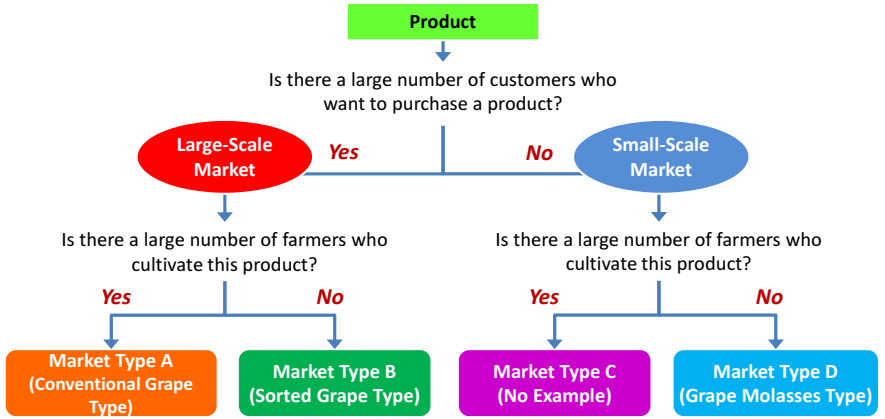


A small number of customers with various needs

3. Categorizing Agricultural Markets

Agricultural market can be categorized to 4 kinds of market according to the number of customers and farmers.

Group Exercise (10 minutes) "Categorize your crops and (if any) Good Practice Farmers' crops in your area."



4. Characteristics of Market

Before selecting crops, market characteristics in each crop involved such as advantages and risks must be considered.

Type of Market	Market Type A (Conventional Grape Type)	Market Type B (Sorted Grape Type)	Market Type C (No Example)	Market Type D (Grape Molasses Type)
Charact eristics	• Normally, farmers can sell large amount of products. • Sold amount and price are drastically change depending on demand/supply by season. • Most products are transacted by bottle/box. • Most products are monopolized by several major traders.	• Most of the products can be sold at higher price, BUT.... ✓ Production techniques tend to be rather difficult compared to other common crops. ✓ Farm inputs including labour and initial investment tend to be more than other common crops. • Most products are transacted by kg. • Traders themselves are willing to come and buy.	• Most of the products are either sold at much lower price or unsold.	• Most of products can be sold at stable price, BUT.... ✓ Increase of number of producer and amount of products cause higher decreases in sales and price. ✓ Loss of consumers causes large decreasing in sales.

5. Recommended Marketing Strategy and Important Market Information

Type of Product	Market Type A (Conventional Grape Type)	Market Type B (Sorted Grape Type)	Market Type C (No Example)	Market Type D (Grape Molasses Type)
Examples of Crops			No product	
Recommend ed Marketing Strategy	• Shifting transplanting time • Adjusting selling time • Group selling of products to increase selling price • Reducing production cost	• Increasing yield • Increasing quality of products • Improving packing and branding • Selling products to more profitable wholesale markets	• Changing products	• Continuing to meet customers' needs • Finding new customers • Direct selling to retailers and consumers
Important Market Information	• **Price fluctuation**	• **Quality of products** • **Price in more profitable wholesale markets in other areas**	• **None**	• **Quality of products** • **Demanded Volume**

- Market information is used for making marketing strategy and farming plan.
- Important market information depend on the market type.

6. Questionnaire Format for Market Opportunity Finding

Example

Market Opportunity Finding Questionnaire Format for Fruit Tree Farmers –Format 3A-4		
Place: Hebron Crop: Grape Market Type (A, B or D): B		
Name of Value Chain Actor: XXXX Ltd. Contact Number: XXXX-XXX-XXX		
Market Needs (Quality)	Variety: Al-Baitoni	1
	Size: Small	2
	Shape: Round, No Cracking	
	Color: Black	
	Uniformity: Variety, Size, Shape, Color	
	Firmness: Firm on Surface	
	Heaviness: 150-200g/bunch	
	Freshness: Within Five days after harvesting	
	Sweetness: Medium	3
	Production Place: Beit Doqqo- Jerusalem	
	Minimum Buying Amount (kg or box): 1,000 kg	
	Others Price Determinants: Methods of Packing	
If any	Mode of Payment: cash (✓) , other ( )	
	Terms of Payment: Cash on delivery	

Prioritize Price Determinants (No.1,2,3)

6. Questionnaire Format for Market Opportunity Finding

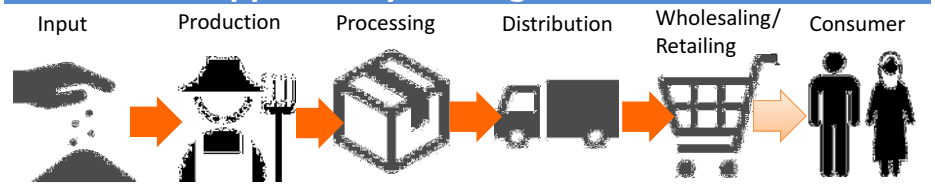
Example

To be filled by each farmer based on his/her experience

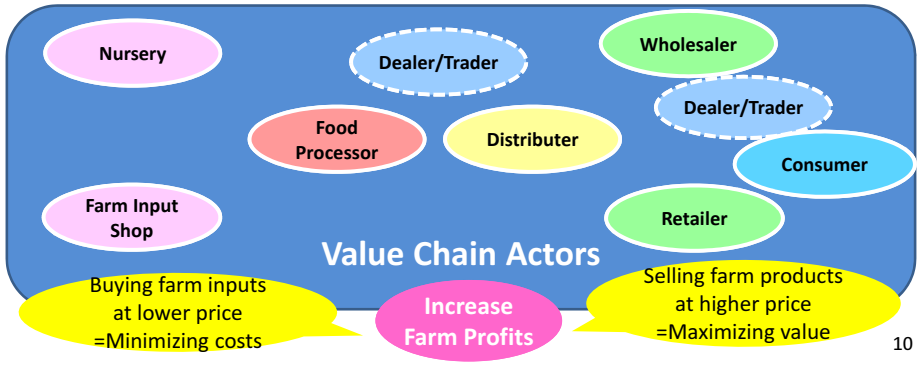
Market O… y Finding Questionnaire Format for Olive Farmers –Format 3A-4						
Pric… Fluctu…n	Two Years Ago (2017)		Last Year (2018)		This Year (2019)	
	Off season	During season	Off season	During season	Off season	During season
Farmer's Selling Price	3 NIS/kg	5 NIS/kg	5 NIS/kg	7 NIS/kg	5 NIS/kg	6 NIS/kg
VCA's Buying Price (NIS/kg, box or etc.)	5 NIS/kg	7 NIS/kg	8 NIS/kg	11 NIS/kg	7 NIS/kg	9 NIS/kg

To be filled by each farmer based on the survey to the respective value chain actor

7. Selection of Cops and Value Chain Actors for Market Opportunity Finding



Value Chain



Buying farm inputs at lower price =Minimizing costs

Increase Farm Profits

Selling farm products at higher price =Maximizing value

7. Selection of Cops and Value Chain Actors for Market Opportunity Finding

Group Exercise (15 minutes)

About what crops would you like to collect information of market needs and situations?

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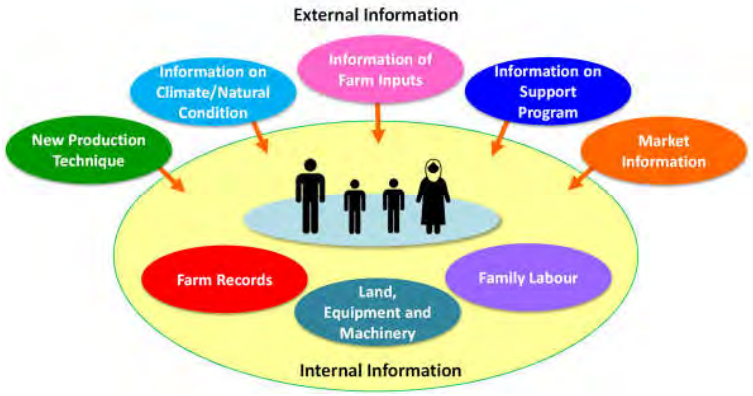
Step-3: Participatory Planning Workshop for Market Opportunity Finding -Olive Farmers-

EVAP

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- To understand the differences and characteristics of agricultural markets and farm inputs in Palestine
- To prepare a plan of market opportunity finding by farmers

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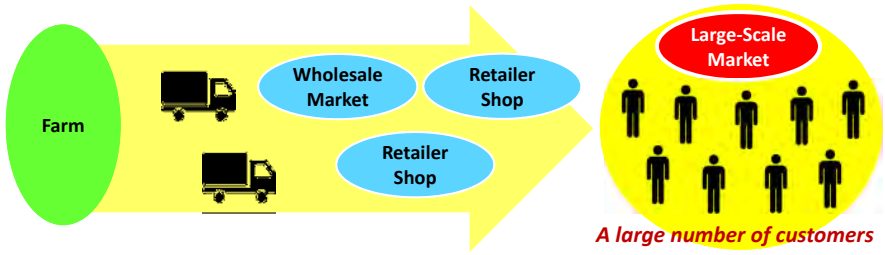
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Production & Selling Products

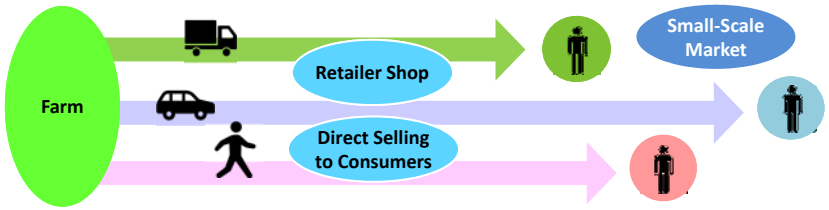
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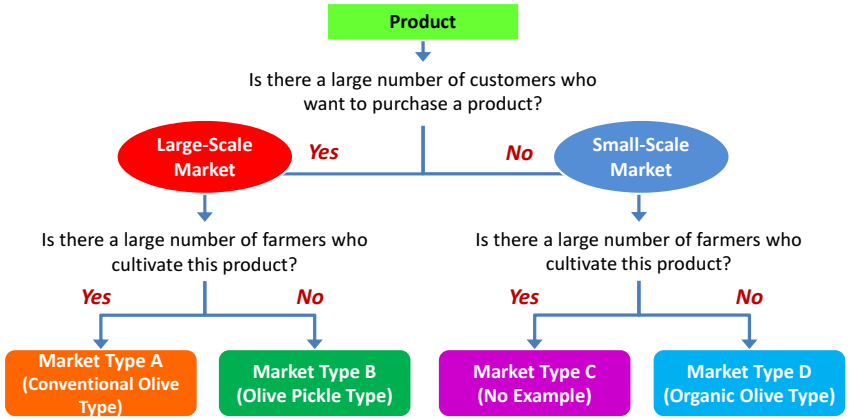


A small number of customers with various needs

3. Categorizing Agricultural Markets

Agricultural market can be categorized to 4 kinds of market according to the number of customers and farmers.

Group Exercise (10 minutes) "Categorize your products and (if any) Good Practice Farmers' products in your area."



4. Characteristics of Market

Before selecting products, market characteristics in each product involved such as advantages and risks must be considered.

Type of Market	Market Type A (Conventional Olive Type)	Market Type B (Olive Pickle Type)	Market Type C (No Example)	Market Type D (Organic Olive Type)
Characteristics	• Normally, Farmers can sell large amount of products. • Sold amount and price are drastically change depending on demand/supply by season. • Most products are transacted by bottle. • Most products are monopolized by several major traders.	• Most of the products can be sold at higher price, BUT.... ✓ Production techniques tend to be rather difficult compared to other common products. ✓ Farm inputs including labour and initial investment tend to be more than other common products. • Most products are transacted by kg. • Traders themselves are willing to come and buy.	• Most of the products are either sold at much lower price or unsold.	• Most of products can be sold at stable price, BUT.... ✓ Increase of number of producer and amount of products cause higher decreases in sales and price. ✓ Loss of consumers causes large decreasing in sales.

5. Recommended Marketing Strategy and Important Market Information

Type of Product	Market Type A (Conventional Olive Type)	Market Type B (Olive Pickle Type)	Market Type C (No Example)	Market Type D (Organic Olive Type)
Examples of Products	Conventional Olive	Olive Pickle	No product	Organic Olive, Olive Soap, Olive Margarine
Recommended Marketing Strategy	• Shifting transplanting time • Adjusting selling time • Group selling of products to increase selling price • Reducing production cost	• Increasing yield • Increasing quality of products • Improving packing and branding • Selling products to more profitable wholesale markets	• Changing products	• Continuing to meet customers' needs • Finding new customers • Direct selling to retailers and consumers
Important Market Information	**• Price fluctuation**	**• Quality of products • Price in more profitable wholesale markets in other areas**	**• None**	**• Quality of products • Demanded Volume**

- Market information is used for making marketing strategy and farming plan.
- Important market information depend on the market type.

6. Questionnaire Format for Market Opportunity Finding

Example

Market Opportunity Finding Questionnaire Format for Olive Farmers –Forma 3A-			
Place: Salfit	Product: Olive Oil	Market Type (A, B or D): B	
Name of Value Chain Actor: XXXX Ltd.		Contact Number: XXXX-XXX-XXX	
Market Needs (Quality)	Freshness: Present Olive Oil Season .... OR within (24) months if storage is appropriate and tins are un-opened		
	Production Place: Salfit	Origin country of competitive products: Oil from Israel (from Spain, Turkey) or Fraud Olive Oil	
	Minimum Buying Amount (kg or bottle): 1,000 KG		
	Required Packaging: Tins		
	Other Requirements:		
	Acidity:	(i) Extra virgin: => Less than 0.8 (ii) (ii) Fine Virgin (ordinary olive oil) => Less than 2.0	1
	Peroxide:	Less than 20 milliequivalent	
	Residues	Free of residues at the bottom of olive oil bottle	
	Purity	No other types of oils are mixed with olive oil	
	Sensory Analysis	No special things detected (taste)	2
If any	Mode of Payment: cash (V) , other ( )		
	Terms of Payment: Cash on delivery		

Prioritize Price Determinants (No.1,2,3)

6. Questionnaire Format for Market Opportunity Finding

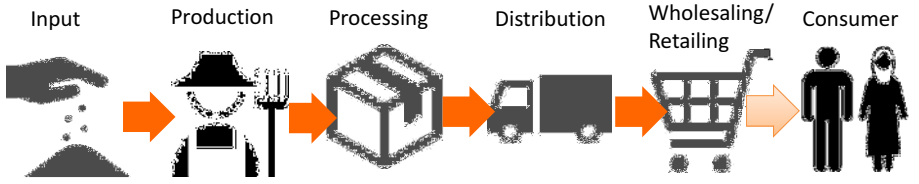
Example

To be filled by each farmer based on his/her experience

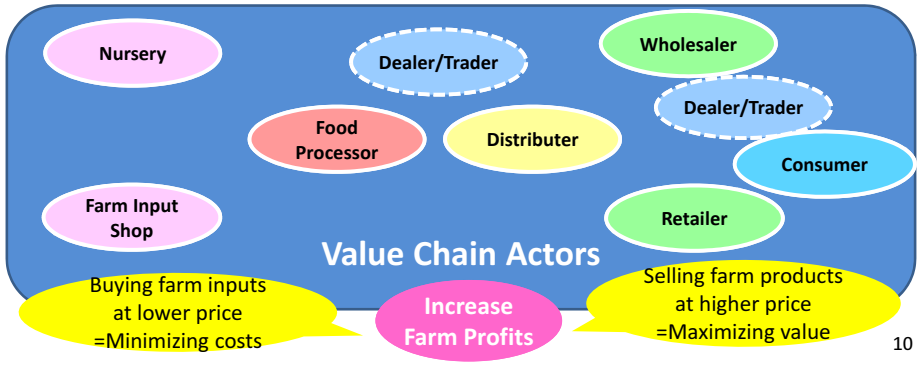
Market O… y Finding Questionnaire Format for Olive Farmers –Format 3A-3						
Pric… Fluctu…	Two Years Ago (2016-2017)		Last Year (2017-2018)		This Year (2018-2019)	
	Off season	During season	Off season	During season	Off season	During season
Farmer's Selling Price	18 NIS/Liter	20 NIS/Liter	20 NIS/Liter	23 NIS/Liter	27 NIS/Liter	32 NIS/Liter
VCA's Buying Price (NIS/Liter or bottle)	20 NIS/Liter	22 NIS/Liter	22 NIS/Liter	24 NIS/Liter	30 NIS/Liter	35 NIS/Liter

To be filled by each farmer based on the survey to the respective value chain actor

7. Selection of Cops and Value Chain Actors for Market Opportunity Finding



Value Chain



Buying farm inputs at lower price =Minimizing costs

Increase Farm Profits

Selling farm products at higher price =Maximizing value

7. Selection of Products and Value Chain Actors for Market Opportunity Finding

Group Exercise (15 minutes)

About what products would you like to collect information of market needs and situations?

Select about 4 products in total: 2 conventional products (farmers face difficulty in marketing) and other 2 new products (farmers want to introduce newly) ideally, but you can flexibly change the products in market visit.

Which value chain actors would you like to visit in large-scale market and/or small-scale market?

How many value chain actors you can visit?

- No limitation but the market visit is only in one day.
- If you visit too many actors, there is no time to interview them.
- If you visit far place, you need to decrease the number of actors to be visited (you need more time for transportation)

8. Planning of Market Opportunity Finding

Group Exercise (15 minutes)

"Prepare your own plan for the market opportunity finding."

Name of Group	XXXXXXXX	
Date	March 10, 2017	
Departure Time	07:30	
Pick Up Place	(1) Village Council Building of YYYY village (2) XXX primary school of ZZZ village	
Number of Participants	20 (Male: 15) (Female: 5)	
Name and Tel No. of Representative	Mr. XXXXXX (0594 XX.XX.XX)	
Time Schedule	Time	Activity
	07:30-08:30 08:30-09:30 09:30-10:30 10:30-11:30 11:30-11:45 11:45-12:15 12:15-13:00	Transport from YYYY village to WWWW village Market visit and interview Transport from WWWW village to VVVV village Market visit and interview Transport from VVVV village to Nablus town Coffee break Transport from Nablus town to UUUU village

9. Tour Participants Nomination

Procedure:

- After the workshop, please inform the number of participants to DOA.
- If there are farmers who are absent but willing to join the visit, it should be reported to the DoA.
- Schedule may change if shop/market will not accept farmers' visit.
- If you find any difficulties in participating to the market visit, please consult with your group members or DOA.

Who can join Market Opportunity Finding?:

- DoA can arrange a bus for participants from the farmer group.
- Participants of group members can bring his/her children if he/she cannot ask anybody to take care of.
- Non group members can also join but a total number of participants is not more than the seat number of the bus. (Information on the maximum number of participants will be provided by DOA extensionists.)

10. Homework

Pick Up 1 Selected Conventional Product and Fill In Questionnaire Format for Market Opportunity Finding based on Your Prediction"

Common Format-B

Group Visit Planning

Title of Activity			
Group Name			
Date			
Departure Time			
Meeting Place	(1)		
	(2)		
	(3)		
Number of Participants	(Male)	(Female)	(Total)
Name and Tel No. of Representative			
Time Schedule	Time	Activity	

Market Opportunity Finding Questionnaire Format for Vegetable Farmers –Format 3A-1

Place:		Crop:	Market Type (A, B or D):
Name of Value Chain Actor:			Contact Number:
Market Needs (Quality)	Variety:		
	Size:		
	Shape:		
	Color:		
	Uniformity:		
	Firmness:		
	Heaviness:		
	Freshness: Within		days after harvesting
	Production Place:		
	Minimum Buying Amount (kg or box):		
	Others Price Determinants:		
If any	Mode of Payment:		
	Terms of Payment:		

Prioritize Price Determinants (No. 1,2,3)

Price Fluctuation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Farmer's Selling Period												
Buying Price (Dominant) (NIS/kg or box)												

Market Opportunity Finding Questionnaire Format for Livestock Farmers –Format 3A-2

Place:		Animal/Product:	Market Type (A, B or D):
Name of Value Chain Actor:		Contact Number:	

Market Needs (Quality)	Variety:	
	Size:	
	Shape:	
	Color:	
	Uniformity:	
	Firmness:	
	Heaviness:	
	Freshness: Within days after processing	
	Production Place:	
	Minimum Buying Amount (kg or box):	
	Others Price Determinants:	
If any	Mode of Payment:	
	Terms of Payment:	

Prioritize Price Determinants (No. 1,2,3)

Price Fluctuation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Farmer's Selling Period												
Buying Price (Dominant) (NIS/kg or box)												

Market Opportunity Finding Questionnaire Format for Fruit Tree Farmers –Format 3A-4

Place:	Crop:	Market Type (A, B or D):	
Name of Value Chain Actor:		Contact Number:	

Market Needs (Quality)	Variety:	
	Size:	
	Shape:	
	Color:	
	Uniformity:	
	Firmness:	
	Heaviness:	
	Freshness: Within ____ days after harvesting	
	Sweetness:	
	Production Place:	
	Minimum Buying Amount (kg or box):	
	Others Price Determinants:	
If any	Mode of Payment: cash ( ) , other ( )	
	Terms of Payment:	

Prioritize Price Determinants (No. 1,2,3)

Price Fluctuation	Two Years Ago ( )		Last Year ( )		This Year ( )	
	Off season	During season	Off season	During season	Off season	During season
Farmer's Selling Price						
VCA's Buying Price (NIS/kg or box)						

Market Opportunity Finding Questionnaire Format for Olive Farmers –Format 3A-3

Place:			Product:		Market Type (A, B or D):		
Name of Value Chain Actor:				Contact Number:			
Market Needs (Quality)	Freshness:						
	Production Place:	Origin country of competitive products:					
	Minimum Buying Amount (kg or bottle):						
	Required Packaging:						
	Other Requirements:						
	Acidity:						
	Peroxide:						
	Residues						
	Purity						
	Sensory Analysis						
If any	Mode of Payment: cash ( ) , other ( )						
	Terms of Payment:						
Price Fluctuation	Two Years Ago ( )		Last Year ( )		This Year ( )		
	Off season	During season	Off season	During season	Off season	During season	
Farmer's Selling Price							
VCA's Buying Price (NIS/Liter or bottle)							

Prioritize Price Determinants (No. 1,2,3)

Attachment 3-4

وزارة الزراعه– الإداره العامه للإرشاد والتنمية الريفيه
مشروع تحسين الارشاد للزراعة ذات القيمة المضافة– (مشروع إيفاب المرحلة الثانيه)

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Step-4: Farming Improvement Planning with Training Needs Identification

1. Purpose and Procedure

Purpose of the Workshop:

1. To identify extension needs based on farming improvement strategies of farmers.
2. To prepare extension plan based on the extension needs.

Procedure:

1. To prepare individual farming improvement plans.
2. To select three target crops/animals/products for technical training as a group.
3. To establish an extension plan as a group.

Group training will be provided by DoA based on identified training needs.

2. Learnings of Previous Steps

What we learned?

1. Awareness Creation Tour
2. Market Opportunity Finding

3. Issues To Be Considered

Farmers should prepared the plan based on the following conditions.

1. Farmers should prepare the plan based on the information and findings obtained in Awareness Creation Tour and Market Visit.
2. Farmers should select target crops/commodities/activities of which market opportunities are confirmed.
3. Farmers should be aware that the Project is not providing equipment.
4. Farmers should start with small-scale activity to obtain quick impact.

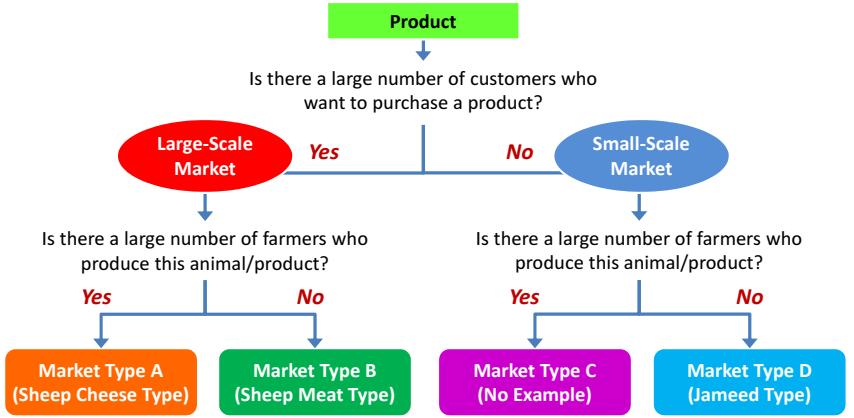
4. Individual Farming Improvement Planning (1)

Use the flipchart (Format-4A)

1. Farmers prepare improvement plan individually.
2. Farmers receive individual farming improvement planning sheets from DoA facilitators **based on the target sectors** (plant production, livestock, food processing).
3. Farmers prepare the plan for **one existing and one new** crop/animal/commodity by using two sheets.
4. **Farmers choose the most high potential** crop/animal/commodity to fill up (A).
5. Farmers decide scale of the improvement activity to fill up (B).
6. Farmers choose market type (Market-A, B, or D) to fill up (C).

5. Market Classification

Agricultural market can be categorized to 4 kinds of market according to the number of customers and farmers.



6. Individual Farming Improvement Planning (2)

Use the flipchart (Format-4A)

Preparation of Individual Farming Improvement Plan:

6. Farmers specify **1-3** improvement strategies based on the experiences of Awareness Creation Tour and Market Visit. Farmers also select market type of target crop/commodity and provide check in (D). Farmers needs to refer recommended strategies for each market type.
   - Market A and B crop/product requires large-scale activities. Strategies such as increasing production and reducing production cost must be effective.
   - For market D crop/product, wholesale market might not be available. Identifying customers (through business matching etc.) is important.

7. Individual Farming Improvement Planning (3)

Use the flipchart (Format-4A)

Preparation of Individual Farming Improvement Plan:

7. Farmers prepare sales plan to fill up (E).
8. Farmers provide procurement plan to fill up (F)
9. **Plant production farmers** estimate production season to fill up (G) based on the selected improvement strategy (If farmers want to adjust production season, it needs to be considered).

8. Target Activity Selection As a Group

Use the flipchart (Format-4B)

Group Exercise (30 minutes)

1. Farmers need to share which commodity (crop/animal/product) and/or business they want to improve. **Farmers can choose several commodities/businesses.**
2. Make ranking for two categories,
   1) improvement of existing commodity/business and
   2) new commodity/businesses for trial.


Format-4B

EVAP

Activity Ranking

1. Improvement activity (many farmers already produce)

Name of activity (Crop/Animal/Product/ Business)	Market Type (A - D)	No. of farmers who want to improve in the next season	Ranking

2. New activity for trial (no or few farmers already produce)

Name of activity (Crop/Animal/Product/ Business)	Market Type (A - D)	No. of farmers who want to make trial in the next season	Ranking

9. Famers Not Interested in Target Crop/Commodity

Farmers who are not interested in the selected target crop/commodity still can join the extension activities.

- Some extension activities such as business matching can be applied for all types of crop/commodity.
- Farmers who are not interested in the selected target crop/commodity can receive supports from extensionists by phone calls or by receiving publications (technical manuals).

10. Group Extension Planning (1)

How to prepare group extension plan

1. Farmers recall individual improvement plan and improvement strategies
2. Farmers discuss and prepare an extension plan as a group.
3. Each farmer group has 5 extension sessions.
4. 1 training session can be site visiting (business matching, additional study tour, additional market visit, etc.)
5. Site visiting will be one-day activity and it could be a combined activity, such as combination of business matching and additional study tour.
6. Other extension session will be 2 hours and cannot be combined activity.
7. Extension modules can be for common or for specific crop/commodity.
8. If farmers have special request, they can deliver message to DOA.

11. Group Extension Planning (2)

Extension modules for production improvement

Improvement Strategy	Extension Module
• Adjusting production period • Improving yield/production • Decreasing mortality rate • Improving crop/product quality	(P1a) Production training for common (compost application)
	(P1b) Production training for common (irrigation system)
	(P2a) Production training for **existing** crop/animal/commodity-1 (with specific topics)
	(P2b) Production training for **existing** crop/animal/commodity-2 (with specific topics)
• Introducing new crop/variety	(P3) Production training for **new** crop/animal/commodity (with general topics)
• All	(P4) Study tour

12. Group Extension Planning (3)

Extension modules for value-adding

Improvement Strategies	Extension Module
• Improving packaging	(V1) Sorting and packaging training
• Improving post-harvest arrangement	(V2) Post-harvest arrangement training (screening, drying etc.)
• Strengthening marketing opportunities	(V3) Marketing/Promotion training
• Strengthening bargaining power	(V4) Negotiation technique training
• Strengthening bargaining power	(V5) Group selling training (V6) Group registration training
• Reducing production cost	(V6) Group registration training (V7) Group procurement training
• Finding out new market channels	(V8) Business matching

13. Group Extension Planning (4)

Good Practices

1. Al-Musafa extension sub-group in Jericho is a male group working for livestock. After they received livestock production training, they additionally requested DoA to organize cheese making training for their wives to maximize family benefit.
2. Mother's School Association/Al Badhan located Nablus is a female group for plant production. The group successfully delivered their special training needs to DoA. Spraying pesticide had been dominant by male but was transferred to female. Their husbands started to work in urban area recently. They successfully learned how to maintain spraying equipment without their husbands.

14. Group Extension Planning (5)

Group Exercise (45 minutes)

1. Farmers recall individual improvement plan and improvement strategies.
2. Farmers select/allocate appropriate training modules using sticky notes on the flipchart (Format-4C).
3. Farmers need to consider production cycle such as month of transplanting, harvesting, or mating.
4. Farmers can deliver special requests on training contents (such as practical training or theoretical training), if necessary.
5. Farmers can consider gender issues and invite family members to activities.

Use the flipchart (Format-4C)



15. Notes

- Farmers are encouraged to prepare individual farming improvement plan for all types of crop/commodity at home.
- Based on the extension needs expressed by farmers, DoA will discuss with relate agencies and make final confirmation of the extension plan.

Format-4A-1

Individual Farming Improvement Plan (for Plant Production)

Name: _____ Telephone No.: _____ Date: _____

Farmer group/cooperative: _____ District: _____

(A) Name of target crop		**(B)** Size of activity	Amount ( ) Unit ( )
(C) Market type of the target crop	☐ C1) Market A (Large-scale market with many competitors)		
	☐ C2) Market B (Large-scale market with few competitors)		
	☐ C3) Market D (Small-scale market with few competitors)		
(D) Improvement strategy	☐ D1) Adjusting production period based on the market price		*for Market A etc.*
	☐ D2) Increasing crop yield		*for Market A & B etc.*
	☐ D3) Reducing production cost		*for Market A & B etc.*
	☐ D4) Strengthen bargaining power of selling		*for Market A, B & D*
	☐ D5) Strengthen marketing opportunities		*for Market A & D etc.*
	☐ D6) Introducing new crop/variety based on market needs		*for Market B & D etc.*
	☐ D7) Improving crop quality to respond market needs		*for Market B & D etc.*
	☐ D8) Improving post-harvest arrangement and packaging		*for Market B & D etc.*
	☐ D9) Finding out new market channels (direct selling, contract farming, new traders etc.)		*for Market D etc.*
	☐ D10) Others ( )		
(E) Sales plan	E1) To where?		
	E2) When?		
	E3) How?		
(F) Procurement plan	F1) From where?		
	F2) When?		
	F3) How?		
(G) Season	From	To	

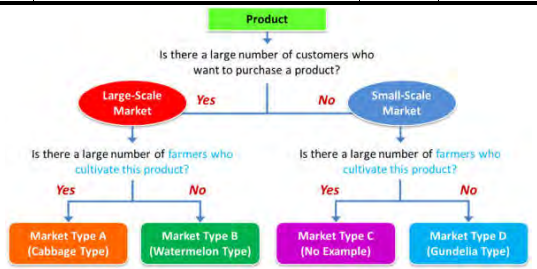


Figure: Classification of Market Type

Note: Scale of market and number of competitors should be estimated based on viewpoints of traders at your target markets.

Format-4A-2

Individual Farming Improvement Plan (for Livestock and Bee Keeping)

Name: _____ Telephone No.: _____ Date: _____

Farmer group/cooperative: _____ District: _____

(A) Name of target product		**(B)** Flock size	Amount ( ) Unit ( )
(C) Market type of the target product	☐ C1) Market A (Large-scale market with many competitors)		
	☐ C2) Market B (Large-scale market with few competitors)		
	☐ C3) Market D (Small-scale market with few competitors)		
(D) Improvement strategy	☐ D1) Adjusting production period based on the market price		*for Market A etc.*
	☐ D2) Increasing yield (reproduction improvement)		*for Market A & B etc.*
	☐ D3) Decreasing mortality rate		*for Market A & B etc.*
	☐ D4) Reducing production cost		*for Market A & B etc.*
	☐ D5) Strengthen bargaining power of selling		*for Market A, B & D*
	☐ D6) Improving packing of products		*for Market A, B & D*
	☐ D7) Strengthen marketing opportunities		*for Market A & D etc.*
	☐ D8) Introducing new breed based on market needs		*for Market B & D etc.*
	☐ D9) Improving product quality based on market needs		*for Market B & D etc.*
	☐ D10) Finding out new market channels (direct selling, contract farming, new traders etc.)		*for Market D etc.*
	☐ D11) Others ( )		
(E) Sales plan	E1) To where?		
	E2) When?		
	E3) How?		
(F) Procurement plan	F1) From where?		
	F2) When?		
	F3) How?		

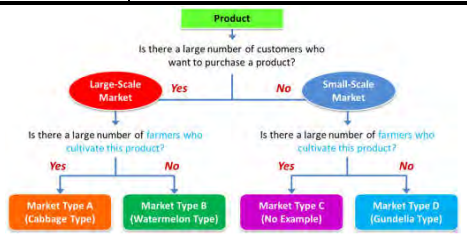


Figure: Classification of Market Type

Note: Scale of market and number of competitors should be estimated based on viewpoints of traders at your target markets.

Format-4A-3

Individual Farming Improvement Plan (for Agro-processing)

Name: _____ Telephone No.: _____ Date: _____

Farmer group/cooperative: _____ District: _____

(A) Name of target product		**(B)** Size of activity	Amount ( ) Unit ( )
(C) Market type of the target product	☐ C1) Market A (Large-scale market with many competitors)		
	☐ C2) Market B (Large-scale market with few competitors)		
	☐ C3) Market D (Small-scale market with few competitors)		
(D) Improvement strategy	☐ D1) Adjusting production period according to the market price		*for Market A etc.*
	☐ D2) Increasing production		*for Market A & B etc.*
	☐ D3) Reducing production cost		*for Market A & B etc.*
	☐ D4) Strengthen bargaining power of selling		*for Market A, B & D*
	☐ D5) Strengthen marketing opportunities		*for Market A & D etc.*
	☐ D6) Introducing new product with high selling price		*for Market B & D etc.*
	☐ D7) Improving product quality based on market needs		*for Market B & D etc.*
	☐ D8) Improving packing		*for Market B & D etc.*
	☐ D9) Finding out new market channels (direct selling, contract farming, new traders etc.)		*for Market D etc.*
	☐ D10) Others ( )		
(E) Sales plan	E1) To where?		
	E2) When?		
	E3) How?		
(F) Procurement plan	F1) From where?		
	F2) When?		
	F3) How?		

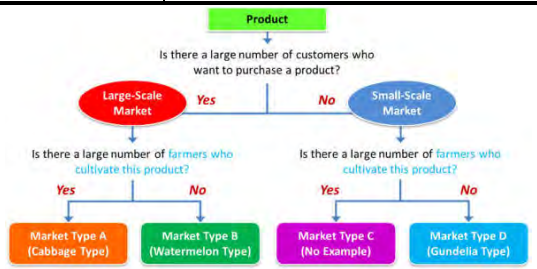


Figure: Classification of Market Type

Note: Scale of market and number of competitors should be estimated based on viewpoints of traders at your target markets.

Format-4B

Activity Ranking

1. Improvement activity (many farmers already produce)

Name of activity (Commodity/Business)	Market Type (A, B, D)	No. of farmers who want to improve in the next season	Ranking

2. New activity for trial (no or few farmers already produce)

Name of activity (Commodity/Business)	Market Type (A, B, D)	No. of farmers who want to make trial in the next season	Ranking

Format-4C

Extension Planning

Farmer Group	District

Month	Production Schedule				Consideration (gender, special training topics, etc.)
	Common	Crop/Product-1	Crop/Product-2	Crop/Product-3	

Attachment 3-5

وزارة الزراعه– الإداره العامه للإرشاد والتنمية الريفيه
مشروع تحسين الارشاد للزراعة ذات القيمة المضافة– (مشروع إيفاب المرحلة الثانيه)

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Step-5: Farm Record Keeping for Profitability Increase

1. Why Farm Record Keeping is important?



Farm record can provide you answers.

1. Why Farm Record Keeping is important?

Major Advantages of Farm Record Keeping

1. You can compare profitability per dunum among crops at the end of cropping season. Then, you can select more profitable crops to continue or expand production area for next season.
2. You can recognize results of profitability of newly introduced crops and technologies.
3. You can have written records of profitable farming practice in your farm such as timing and dosage of agro-chemical and fertilizers, transplanting timing of seedlings, and selling timing of products. Then, you can also continue those practices in next season to stabilize your farm profit.
4. You can order required number of seedlings to a nursery in advance, and reserve farm machineries, trucks and labours base on the farm records.

2. A Case of Good Practice for Farm Record Keeping

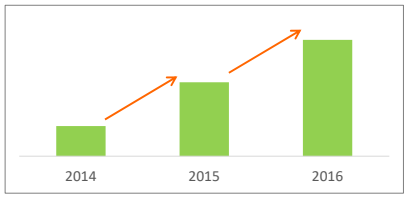
Mr. Amjad Barakat (Jericho)



1. He is a vegetable farmer in Jericho.
2. He started farm record keeping in 2014 after receiving EVAP training.
3. He is keeping two types of farm records.
   (1) **Financial Record** (Income & Expenditure)
   (2) **Farm Practice Record** (Timing of field activities & volume of farm input application such as fertilizers and agro-chemicals)
4. He is using the farm records for two purposes.
   (1) **Selecting profitable crops for next season** based on the Financial Record
   (2) **Establishment of better farming practice** suitable for his field based on the Farm Activity Record.

2. A Case of Good Practice for Farm Record Keeping

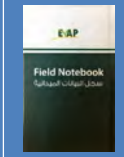
5. Advantages
   (1) He successfully **selected more profitable crops** which are demanded by markets. He also **stopped cultivating less profitable crops**. He realized that his understanding before starting record keeping was inaccurate.
   (2) He recognized **appropriate farm practices** such as timing and volume of farm inputs in his fields.
   (3) He was able to order seedlings to a nursery and reserved farm machineries and labours in proper timing.
6. Increased Profit
   (1) Farm profit in 2015 increased by 2.5 times of 2014.
   (2) Farm profit in 2016 increased by 1.6 times of 2015.



3. Selective Record Keeping System

Farmers can choose Simplified System or Full-Scale System

A. Simplified System (quick result) • **Profitability without itemized records** • **General (mixed) farm operation record**	**Field Note only**
B. Full-Scale System (crop/product based analysis) • **Profitability with itemized records** • **Crop/Product based farm operation record**	Field Note with Farm Record Book



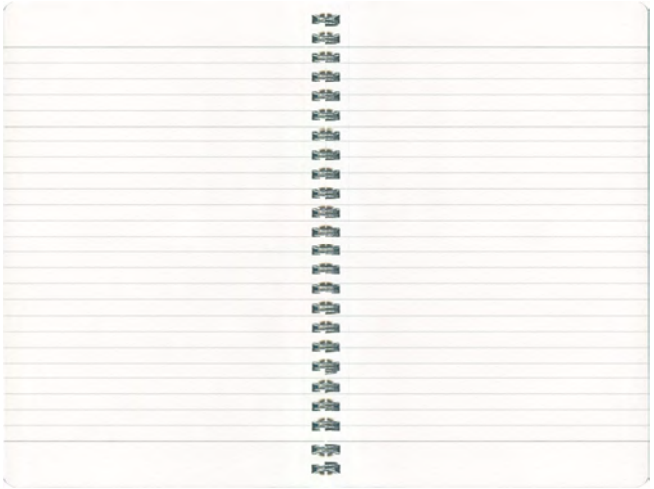


A. Simplified System

A-1. Preparation

Prepare a notebook. You can use any kind of notebook for farm record keeping.





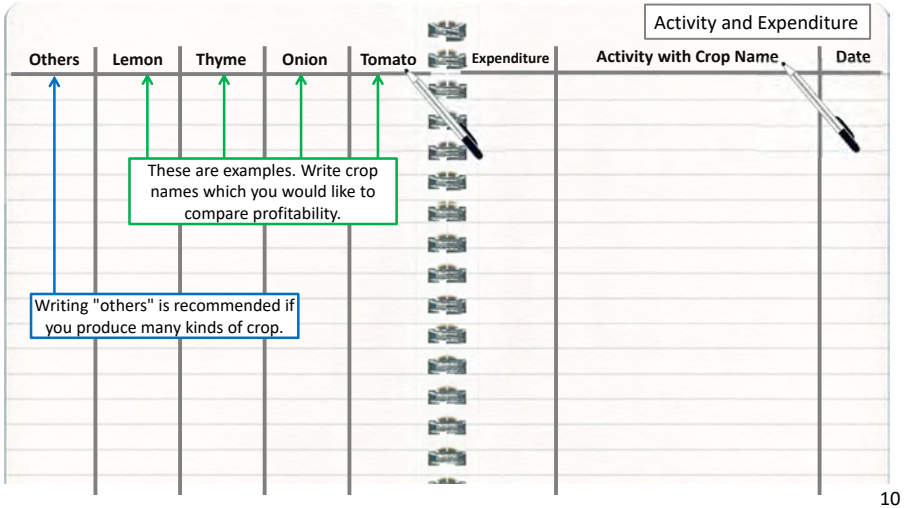
A-2. Activity and Expenditure Record

Step 1-1: Draw thick lines or color lines as follows from the first page. Then, write "Activity and Expenditure" at the top of the page. You can use those pages as Activity and Expenditure Record.



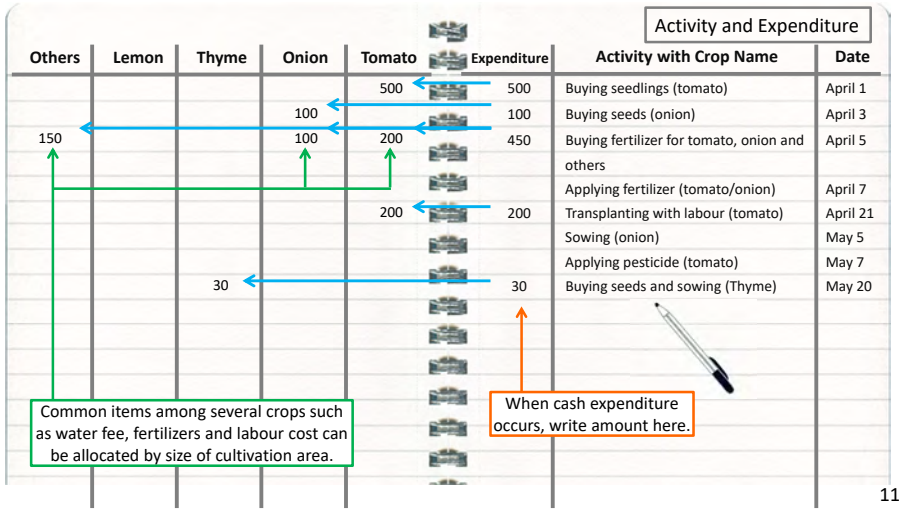
A-2. Activity and Expenditure Record

Step 1-2: Write items and names of crop which you would like to compare profitability at top line as shown in the following example. Selecting both ordinary crops and new crops are recommended to compare their profitability.



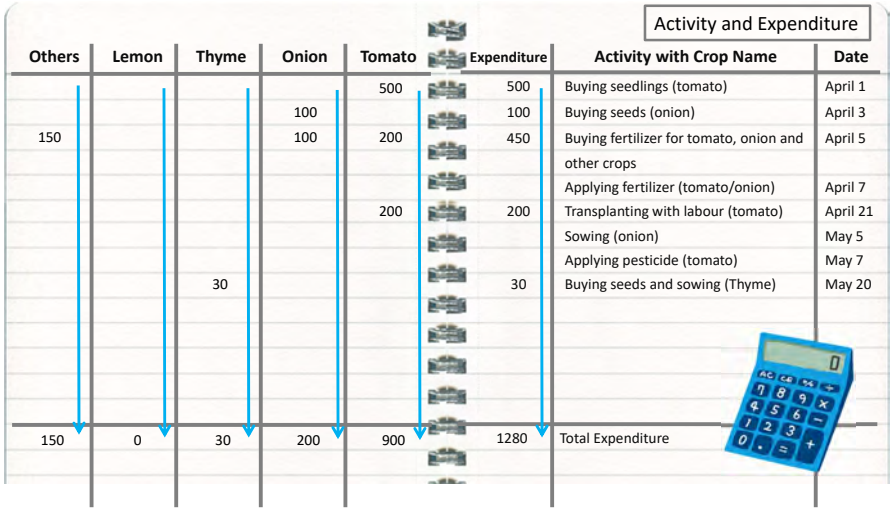
A-2. Activity and Expenditure Record

Step 1-3: Keep "Activity and Expenditure Record" as shown in the following example. Writing detailed information is recommended. When cash expenditure occurs, write amount in the right page. Then, allocate the amount to each crop in left page.



A-2. Activity and Expenditure Record

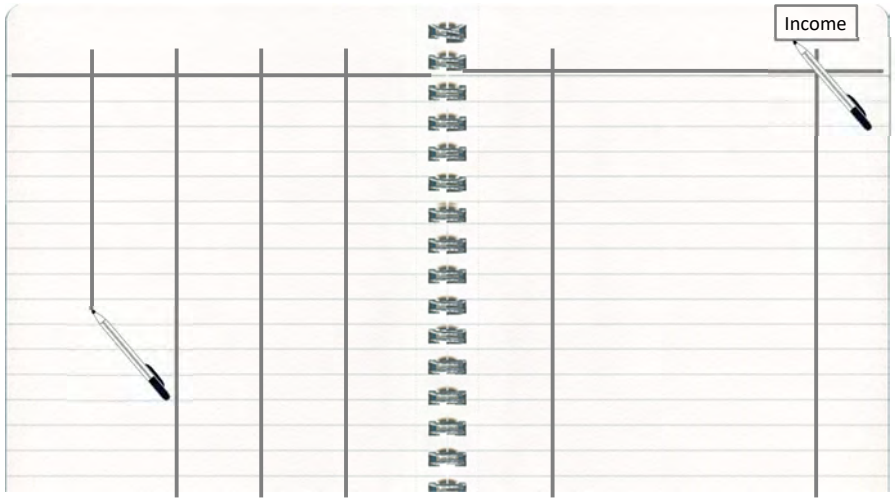
Step 1-4: At the end of cropping season, sum up total expenditure of each crop.



You can grasp total expenditure of each crop.

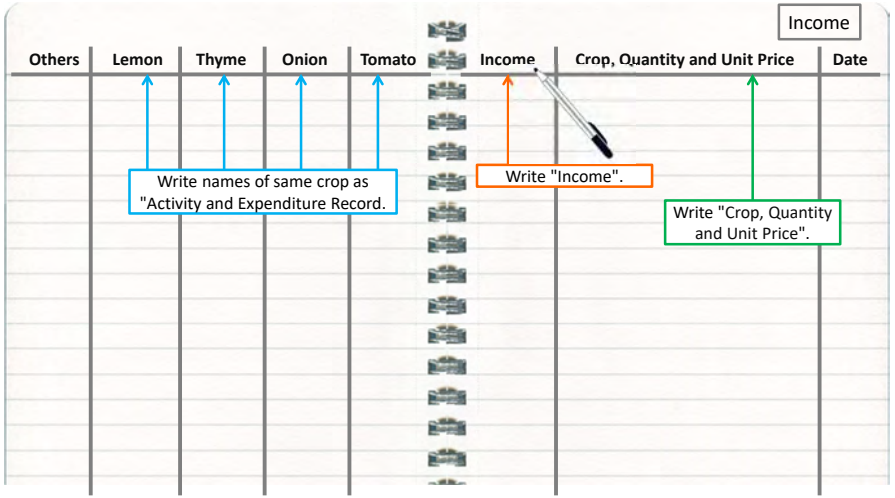
A-3. Income Record

Step 2-1: Draw thick lines or color lines as follows from the last page. Then, write "Income" on the top of the page. You can use those pages as Income Record.



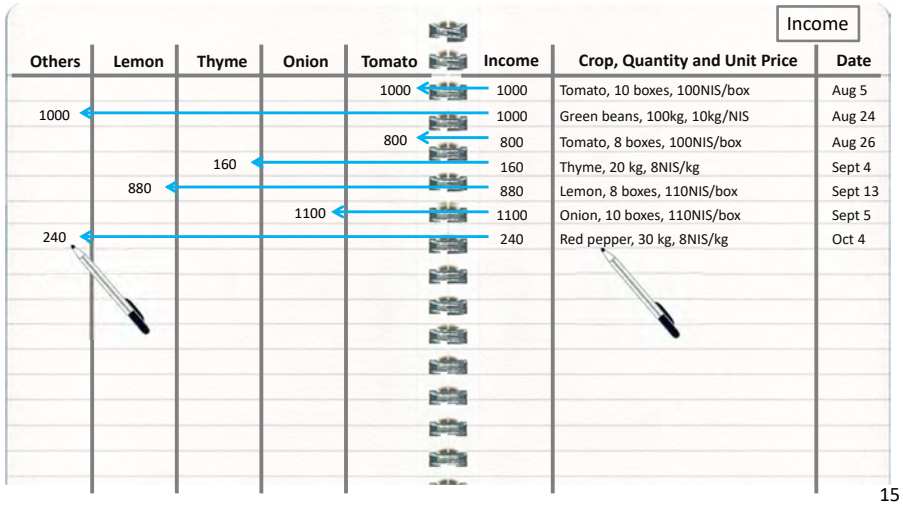
A-3. Income Record

Step 2-2: Write items at top line and names of same crop as "Activity and Expenditure Record" as follows.



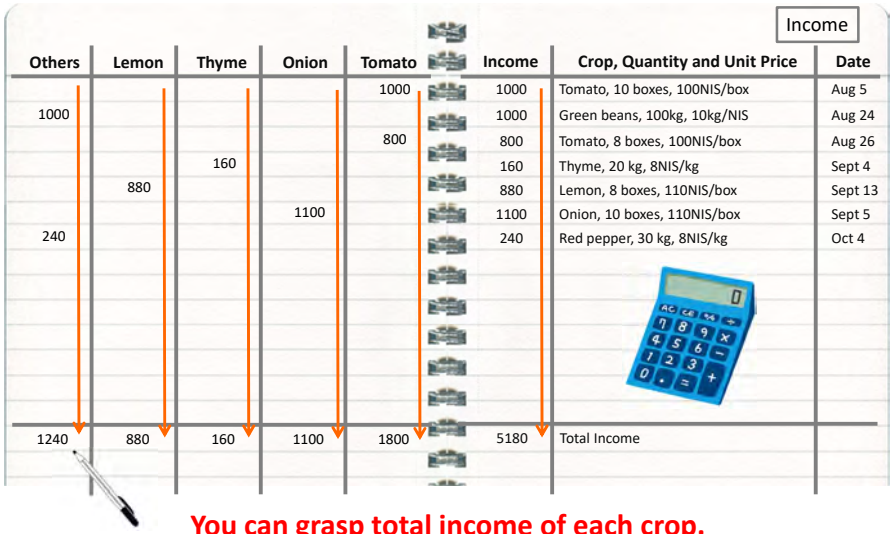
A-3. Income Record

Step 2-3: Keep "Income Record" as a following example when you get income. Writing detailed information such as quantity and unit price is recommended. Then, put the amount in each crop in left page.



A-3. Income Record

Step 2-4: At the end of cropping season, sum up total income of each crop.



You can grasp total income of each crop.

A-4. Calculation of Net Profit and Profitability

Step 3-1: You can grasp "Total Net Profit" and "Net profit of each crop" by calculation of "Total Income - Total Expenditure".

Income

Others	Lemon	Thyme	Onion	Tomato	Income	Activity with Crop Name	Date
1240	880	160	1100	1800	5180	Total Income	

Activity and Expenditure

Others	Lemon	Thyme	Onion	Tomato	Expenditure	Crop, Quantity and Unit Price	Date
150	0	30	200	900	1280	Total Expenditure	

1090 880 130 900 900 3900 Net Profit (NIS)



A-4. Calculation of Net Profit and Profitability

Step 3-2: You can calculate "Profitability per dunum" by calculation of "Net Profit / Size of Cultivation Area in dunum".

Income

Others	Lemon	Thyme	Onion	Tomato	Income	Activity with Crop Name	Date
1240	880	160	1100	1800	5180	Total Income	

Activity and Expenditure

Others	Lemon	Thyme	Onion	Tomato	Expenditure	Crop, Quantity and Unit Price	Date
150	0	30	200	900	1280	Total Expenditure	

1090 880 130 900 900 3900 Net Profit (NIS)

4 0.5 1 2 10 Cultivation Area (dunum)

220 260 900 450 390 Profitability (NIS/dunum)



Continuing or expansion of cultivation area of high profitable crops is recommended.

You can grasp total net profit from your farm.

B. Full-Scale System

B-1. Summary of Full-Scale System

You can even do better record keeping by applying Full-Scale System. If you need, DOA can give you the Notebook with guideline for full-scale system.



- One book for one crop/product
- Data sorting for each item (fertilizer, pesticide, etc.)
- Itemized total can be obtained easily
- Farmers can compare situation with records of advanced farmers.

Attachment 3-6

List of Technical Training Manuals for Extension Step 6

1. List of Technical Training Manuals prepared by EVAP-2

#	Training Topic	Category								موضوع التدريب	#
		Vegetable	Rainfed Crop	Horticulture	Livestock	Farm Management	Marketing	Processing	Others		
1	Gundelia Cultivation	✓								زراعة العكوب	1
2	Dried Paprika Cultivation	✓								زراعة الفلفل الحلو(المجفف لتصنيع البهارات)	2
3	Fresh Paprika Cultivation	✓								زراعة الفلفل الحلو الملون	3
4	Spring Cucumber Cultivation	✓								زراعة الخيار الربيعي	4
5	Hanged Peas Cultivation	✓								زراعة البازيلاء المعلقة	5
6	Thyme Cultivation	✓								زراعة الزعتر	6
7	Bottle Goard Cultivation	✓								زراعة اليقطين	7
8	Rainfed Grafted Watermelon Cultivation	✓								زراعة البطيخ المطعم (البعلي)	8
9	Protected Watermelon Cultivation	✓								زراعة البطيخ المطعم في البيوت البلاستيكية	9
10	Louisa Cultivation	✓								زراعة عشبة اللويزا	10
11	Freekeh Production		✓							إنتاج الفريكة	11
12	Cucumber Pest Control	✓								مكافحة الامراض والآفات التي تصيب الخيار	12
13	Tomato Pest Control	✓								مكافحة الامراض والآفات التي تصيب البندورة	13
14	Grafted Seedlings of Cucumber	✓								زراعة الخيار المطعم	14
15	Citrus Trees Management			✓						العناية بأشجار الحمضيات	15
16	Animal Health				✓					تدريب حول أمراض وصحة الحيوان	16
17	Sheep breeds improvement				✓					تحسين السلالات الحيوانية	17
18	Cheese Making							✓		تصنيع الاجبان	18
19	AL Falfa Cultivation				✓					زراعة البرسيم (الفالفا)	19
20	Bee keeping				✓					تربية النحل	20
21	Compost Making					✓				تصنيع وإستخدام الكومبوست	21
22	Greenhouse Management					✓				ادارة البيوت البلاستيكية	22

#	Training Topic	Category								موضوع التدريب	#
		Vegetable	Rainfed Crop	Horticulture	Livestock	Farm Management	Marketing	Processing	Others		
23	Farm Records					✓				حفظ السجلات المزرعية	23
24	Manual Sprayers					✓				استخدام وصيانة المرشات اليدوية	24
25	Irrigation and Fertilization of Vegetables	✓								ري وتسميد الخضار	25
26	Group Purchase of Farm Inputs					✓				الشراء الجماعي لمستلزمات الانتاج الزراعي	26
27	Cooperative Registration Procedure					✓				اجراءات تسجيل الجمعيات التعاونية	27
28	Marketing and Branding						✓			تسويق المنتجات الزراعية ووضع العلامات التجارية	28
29	Price Negotiation skills						✓			مهارات التفاوض على أسعار المنتجات الزراعية	29
30	Downy Mildew Disease (Grape)			✓						مكافحة أمراض البياض الزغبي التي تصيب العنب	30
31	Green Pruning on Grape			✓						التقليم الاخضر لاشجار العنب	31
32	Group selling of olive oil			✓						البيع الجماعي لزيت الزيتون	32
33	Test Marketing and Direct selling						✓			إختبار التسويق والبيع المباشر لمحلات التجزئة	33
34	Grape pest control			✓						آفات العنب وطرق مآفات العنب وطرق مكافحتها	34
35	Feeding Management				✓					ادارة التغذية في مزارع الأغنام والماعز	35
36	Irrigated watermelon cultivation	✓								زراعة البطيخ المروي	36
37	Sheep Farm Management				✓					ادارة المزرعة وطرق العناية بالحملان الجديدة	37
38	Watermelon cultivation (seedless)	✓								زراعة البطيخ (بدون بذور)	38
39	Main Pests of Grape & their Control Methods			✓						آفات العنب الحشرية وطرق مكافحتها	39
40	Mixing of Chemical Pesticides			✓						طرق خلط المبيدات الكيماوية المناسبة	40
41	Pest and Disease Management				✓	✓				إدارة الآفات والامراض النباتية	41
42	Artificial Insemination for Small Ruminants									التلقيح الصناعي للمجترات الصغيرة	42

#	Training Topic	Category								موضوع التدريب	#
		Vegetable	Rainfed Crop	Horticulture	Livestock	Farm Management	Marketing	Processing	Others		
43	Garlic Cultivation	✓								زراعة الثوم	43
44	Onion Cultivation	✓								زراعة البصل	44
45	Supplemental irrigation			✓						الري التكميلي	45
46	Olive trees pests & disease			✓						آفات وأمراض الزيتون	46
47	Short-Term Practices to Improve Grape Quality			✓						العمليات الزراعية اللازمة لتحسين جودة العنب	47
48	The specifications of molasses and dried grapes according to the PALESTINE STANDARDS INSTITUTION							✓		مواصفات الدبس والعنب المجفف وفق مؤسسة المواصفات والمقاييس الفلسطينية	48
49	The effects thermal treatment on Dibis Quality							✓		تأثير الغلي على جودة دبس العنب بإستخدام الطرق التقليدية	49
50	Milking and Dairy Processing							✓		تحسين إجراءات سلامة وجودة الحليب ومنتجات الالبان	50
51	Fertilization programs					✓				توصيات حول برامج تسميد الخضار والمحاصيل البعلية الرئيسية	51
52	Japanese experience of Tsunami disaster								✓	تقديم خدمات الإرشاد الزراعي في الكوارث (التجربة اليابانية)	52
53	Optimal Use of Irrigation Water					✓				الاستخدام الامثل لمياه الري	53
	Total	18	1	10	7	9	3	4	1		

2. List of Existing Technical Training Manuals prepared by MOA

#	Title of Training Manuals	عنوان كتيبات التدريب
1	The importance of iron in plant nutrition	أهمية الحديد في تغذية النباتات
2	Health measures to protect plants from pests	اجراءات صحية لوقاية النباتات من الآفات الزراعية
3	The use of wastewater for irrigation and irrigated soil contamination risk of sodium	استخدام المياه العادمة للري و خطر تلوث الاتربة المروية بالصوديوم
4	Proper use of control materials to prevent damage to honeybees	الاستعمال الصحيح لمواد المكافحة لمنع الحاق الضرر بنحل العسل
5	Natural swarming of bees	التطريد الطبيعي للنحل
6	Oil and olives in proverbs	الزيت والزيتون في الأمثال الشعبية
7	Factors influencing the formation of the onion capital	العوامل المؤثرة على تكوين رؤوس البصل
8	Plant Pathogenic Fungi	الفطريات الممرضة للنبات
9	Plant Pathogenic Fungi	الفطريات الممرضة للنبات
10	The importance of selecting good vegetables seedlings	أهمية اختيار أشتال الخضروات الجيدة
11	Solar effects on bacteria living in the soil	تأثير الطاقة الشمسية على الجراثيم القاطنة في التربة
12	Instructions for the use of fertilizer and chemical storage	تعليمات لاستعمال و خزن الاسمدة الكيماوية
13	Pruning apple and pears trees	تقليم أشجار التفاح و الأجاص
14	Clean the drip irrigation system	تنظيف شبكة الري بالتنقيط
15	Recommendations on how to take samples from the tree leaves for analysis in the laboratory	توصيات بخصوص كيفية أخذ عينات الأوراق من الأشجار للتحليل في المختبر
16	Recommendations for olive growers	توصيات لمزارعي الزيتون
17	About olive oil	حول الزيتون و الزيت
18	The role of bees in the pollination of agricultural crops	دور النحل في تلقيح المحاصيل الزراعية
19	Irrigate, fertilize and Prevention of beans	ري و تسميد ووقاية الفاصولياء
20	Phenomena of unsatisfactory injury in peppers fruits in greenhouses	ظواهر الاصابة غير المرضية في ثمار الفلفل في الدفيئات
21	Checking beehives	فحص خلايا النحل
22	Monilla disease (wilting flowers and blight branches) of apricots and almonds trees	مرض المونيليا (ذبول الأزهار و لفحة الأغصان) لأشجار المشمش و اللوز
23	Multiplication Materials and wild herbs as a factor of the spread of disease factors	مواد التكثير و الاعشاب البرية كعامل من عوامل نشر الأمراض
24	Bee pests: the symptoms of damage and control and treatment methods	آفات النحل: أعراض الضرر وطرق المكافحه والعلاج
25	Foundations of choosing the types and varieties of almonds	أسس إختيار أنواع وأصناف اللوزيات
26	Selection of agricultural citrus saplings and the problems of post-Agriculture	إختيار أشتال الحمضيات الزراعة ومشاكل ما بعد الزراعه
27	Soil sampling	اعتيان التربة
28	The establishment of nurseries for Land strawberries	إقامه مشاتل للتوت الارضي
29	Summer pruning of fruit trees	التقليم الصيفي لاشجار الفاكهه
30	Soil pH	الرقم الهيدورجيني
31	Organisms and biological fertility	الكائنات الحية والخصوبة البيولوجية
32	Organic matter and its importance to the soil	المادة العضويه وأهميتها للتربه
33	Alternate fruit bearing in olive trees	تبادل الحمل في أشجار الزيتون
34	Elemental sulfur and nitrogen effect on the quantity and quality of wheat grain	تأثير عنصري النيتروجين والكبريت على كمية ونوعية حبوب القمح

#	Title of Training Manuals	عنوان كتيبات التدريب
35	Pest and Disease	تشخيص أمراض النبات
36	Salinity Assessment	تقدير الملوحة
37	Processing and maintenance of sprinklers	تجهيز وصيانة المرشات
38	Transferring of Viruses Plants	إنتقال الفيروسات النباتيه
39	Fertilization by irrigation water	التسميد بواسطة مياه الري
40	Pruning of falling leaves fruit trees	تقليم أشجار الفاكهة متساقطة الاوراق
41	Olives Pruning	تقليم الزيتون
42	Recommendations for the use of Bumblebees Hives (Albombos)	توصيات لاستعمال خلايا النحل الطنان (البومبوس)
43	almonds roots borer insect and methods of control	حشرة حفار جذور اللوزيات وطرق مكافحتها
44	The characteristics of liquid fertilizers	خصائص الاسمدة السائله
45	Garlic cultivation	زراعة الثوم
46	Cultivation of organic vegetables	زراعة الخضروات العضوية
47	Cabbage cultivation	زراعة القرنبيط
48	Drip irrigation network maintenance	صيانة شبكة الري بالتنقيط
49	DEAD ARM Disease	مرض الذراع الميت
50	Mold lumbar disease (Alseklerotineya)	مرض العفن القطني (السكليروتينيا)
51	Clogging drippers problems and proposed solutions	مشاكل تسدد النقاطات والحلول المقترحة
52	Disease control in tomatoes greenhouses	مكافحة الامراض في دفيئات البندوره
53	Rodent control	مكافحة القوارض
54	Dodder control	مكافحة الهالوك
55	Hamoul Spam plant	نبات الحامول المتطفل
56	Nutritional deficiency in plants	نقص التغذيه في النباتات
57	Protection of Plants transplanted inside the greenhouses from frost damage	وقاية النباتات المزروعه داخل الدفيئات من أضرار الصقيع
58	Improving the nutritional value of straw and hay	تحسين القيمة الغذائية للقش والتبن
59	Basic instructions to be followed for the cultivation of seedlings	التعليمات الأساسية الواجب اتباعها لزراعة الاشتال
60	Cinnamon	القرفة
61	Livestock & Poultry	وزارة الزراعة الفلسطينية
62	Argo buctaium disease	مرض التدرن التاجي
63	General guidance to avoid damage caused by depressions and frost waves	إرشادات عامه لتجنب الأضرار الناجمة عن المنخفضات الجوية وموجات الصقيع
64	Cactus	زراعة الصبر
65	Annual calendar for the management of farm sheep	رزنامة سنوية لإدارة مزرعة أغنام
66	Cultivation of Onion	زراعة البصل
67	Flowering bulbs	الأبصـال المزهــرة
68	Protection of trees program	برنامج وقاية الأشجار
69	Program of prevention and fertilize almond trees	برنامج وقاية وتسميد اشجار اللوزيات
70	The Extension message of protected & convertible vegetables / horticulture	الرسالة الإرشادية للخضار المحمية والمكشوفة/ البستنة الشجرية

#	Title of Training Manuals	عنوان كتيبات التدريب
71	Integrated program to serve the pomegranate trees	البرنامج المتكامل لخدمة اشجار الرمان
72	Hoof spending tomatoes Tota Abslota	حافرة انفاق البندورة توتا ابسليوتا
73	Mango	المانجا
74	Pruning green grapes	التقليم الأخضر للعنب
75	The establishment of fruits orchids	انشاء بساتين الفاكهه
76	Fertilize rain fed olive trees	تسميد اشجار الزيتون البعلية
77	Fertilizing wheat and barley	تسميد القمح والشعير
78	Fertilizing wheat and barley	تسميد القمح والشعير
79	Fertilizing wheat and barley	تسميد القمح والشعير
80	Chemical cleaning process for drip irrigation networks	عملية التنظيف الكيماوي لشبكات الري بالتنقيط
81	Avoiding the impact of the heatwave	تدابير تفادي أثر موجة الحر
82	Okra	الباميإء
83	Safety in driving and the use of tractors and agricultural machinery	السلامه في قيادة واستخدام الجرارات والآلات الزراعيه
84	Challenges and the reality of harvesting the baladi lentils	تحديات وواقع حصاد العدس البلدي
85	Planting avocado	زراعة الأفوجادو
86	Planting Carhtamus tinctorius	زراعة وخدمة محصول العصفر
87	Hatching eggs and the extent of its relationship with the quality of the Chick	بيض التفقيس ومدى علاقته بنوعية الصوص
88	Calculate the amount of water collected by water harvesting	حساب كمية المياه المتجمعة بواسطة الحصاد المائي
89	Grafting fruit trees	تطعيم الأشجار المثمرة
90	Bananas	الموز
91	Cultivation and production of Cultivation and production of albicans coconut	زراعة وإنتاج جوز البيكان
92	Oak	البلوط
93	Ziziphus jujuba	عناب
94	Quince/Cydonia oblonga	سفرجل
95	Ficus Sycamrous	الجميز
96	Cactus obtigum	صبر
97	Morus alba	التوت
98	Pistachio palastina	بطم فلسطيني
99	Grafting seedlings	تطعيم الأشتال
100	Vaccination in Fruits orchids	التطعيم في بساتين الفاكهة
101	Ziziphus jujuba	عناب
102	Vaccination in Fruits orchids	التطعيم في بساتين الفاكهة
103	Prunus avium	القراصيا
104	Assets of Citrus and its specifications	أصول الحمضيات ومواصفاتها

Source: Prepared by EVAP-2 project team based on existing technical manuals owned by MOA

Attachment 3-7

Farm Management Analysis and Evaluation of EVAP Activity (For Crop Production)

Format-7A

1. Basic Information

Name: _____	Sex: ☐Male ☐Female	Number of labor force in your family for farming: _____
Farmer group name: _____	Tel. number: _____	Is major income of your household from agricultural activities? ☐Yes ☐No

2. Evaluation of Information Use

Information		Does your household collect/reflect the information before cropping seasons?						*Example of the information to be collected and used for farming*
		Before or without participating in EVAP			After or with participating in EVAP			
		Yes	No	If Yes, who collect/reflect in your household?	Yes	No	If Yes, who collect/reflect in your household?	
External Information (Information to be collected from outside)	New Production Technique	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*New techniques to improve yield and quality and to reduce production cost, etc.*
	Market Information	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Information on market needs, price trend, consumers' needs, contact number of traders and retailers, etc.*
	Information of Farm Inputs	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Information on crop/livestock variety, price of seedlings, fodder, fertilizer and agro-chemicals and vaccine, etc.*
	Information of Support Program	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Information on government program, NGO's support program, subsidy, available public facility, etc.*
	Information of Climate/Natural Condition	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Weather forecast, pest & disease prediction, frost & drought prediction etc.*
Internal Information (Reflection or review by farmer themselves)	Labor, Workload among Family Members	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Working record of family members, labour employment record, etc.*
	Farm Records	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Record of sales and income, cost of farm inputs, quantity of production, available cash for farming, etc.*
	Land, Equipment and Machinery	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Record of available farm land, land condition (pH, salinity level etc.), how to use available equipment and machinery effectively, etc.*

3. Evaluation of Extension Activities in EVAP and their Application

3-1. Communication with Extentionists

Questions	Answer
1) Did you understand explanation by the extensionists in implementing the EVAP activities?	☐ 1. YES, Very easily ☐ 2. YES, With some difficulties ☐ 3. NO, Very difficult ☐ 4. Not known
2) Have you had more opportunities to consult with the extensionists after implementation of the EVAP activities?	☐ Yes ☐ No ☐ Not know
3) Do you intend to consult with the extensionists when you face problems in the future?	☐ Yes ☐ No ☐ Not know

3-2. Evaluation of Extension Measures

Question	Evaluation				Did you apply any techniques or information obtained from EVAP activities for your agricultural activities?
	Very Satisfied	Satisficed	Dissatisfied	Very Dissatisfied	
	1	2	3	4	
1) Are you satisfied with the study tours (awareness creation tours, market visits, business matching sessions, etc.)?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
2) Are you satisfied with the planning sessions for study tours, farming improvement plan, training plans, etc.?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
3) Are you satisfied with the lectures for technical trainings?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
4) Are you satisfied with the technical training manuals/materials? (Did you easily understand training manuals/materials?)	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
5) Are you satisfied with the contents of the EVAP Extension Package as a whole?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know

4. Evaluation of Effectiveness of Gender Consideration in EVAP

For female members				For both male and female members			
Question	Answer			Question	Answer		
	Yes	No	Not sure		Yes	No	Not sure
A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?	☐	☐	☐	B-1. Have workloads of family members (**particularly female farmers**) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?	☐	☐	☐
A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?	☐	☐	☐	C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?	☐	☐	☐
A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?	☐	☐	☐	C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?	☐	☐	☐
A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?	☐	☐	☐	D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?	☐	☐	☐
A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?	☐	☐	☐	D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?	☐	☐	☐

5. Evaluation on Improvement of Problems

Typical Problems due to lack of information (Please check if you faced before EVAP)		**Were problems improved by techniques or information provided by EVAP?**
Problems in Production	☐ Soil fertility was low.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Quality of available seedlings were bad.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Techniques of fertilization were bad.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Techniques for pest & disease control were bad.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Irrigation techniques (optimization of water use) were bad.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
Problems in Marketing	☐ Crop selection did not match the market needs.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Quality of produced crop did not match the market needs.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Techniques for sorting and packing were poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Harvest timing did not match the market needs.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Market channels (e.g. wholesale markets, retailer shops, traders, etc.) were not diversified.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Bargaining power of farmers was poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Packaging and sorting methods did not match the market needs.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
Problems in Cost and Labor	☐ Costs for farm inputs were high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Working hours were long.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Cost for packaging was high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Transportation cost was high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
Other problems **(Please write if there are other problems)**		☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
		☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
		☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement

6. Profitability Assessment

6-1. Present Status (with or after EVAP)

Please fill in the data of crops in which there were **any changes** by EVAP **over the last year.** Such examples as i) crops newly introduced, ii) crops to which new techniques were applied, iii) crops which were sold to different markets/shops after EVAP, iv) crops whose production areas were expanded, v) crops whose production costs decreased, etc. could be corresponded. If you have kept farm records, please refer to it.

	(A)		(B)	(C)	(D)	(E)	(F)			(G)	(H)		
#	Crop and Season	*Changes by EVAP*	Area (dunum)	Total Production (box or kg*1)	Sold Amount (box or kg*1)	Average Unit Selling Price (NIS/box or NIS/kg)	Total Sales (NIS) (D)	X	(E)	Total Cost (Seedling, Fertilizer, Agro-chemical, Labor fee, etc.) (NIS)	Net Profit (NIS) (F)	-	(G)
(1)				☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(2)				☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(3)				☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(4)				☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(5)				☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
										(I) Total Net Profit (Present Status)			

*1 If you usually use “ton”, please convert it to “kg” (1,000kg=1ton).

6-2. Baseline Status (without or before EVAP)

Please fill in the assumed or predicted data of the crops which would have cultivated in the farm land mentioned in the above table if you had not participated in the EVAP activities. Such examples as i) conventional crops, ii) crops which were produced by conventional techniques, iii) crops which were sold to conventional market, iv) crops which were produced by other farmers who did not participated in the EVAP activities, etc. could be corresponded. If you remember historical data of those crops, you can fill in it. If you cannot fill in, please keep it blank.

	(A)	(B)	(C)	(D)	(E)	(F)			(G)	(H)		
#	Crop and Season	Area*2 (dunum)	Total Production (box or kg*1)	Sold Amount (box or kg*1)	Average Unit Selling Price (NIS/box or NIS/kg)	Total Sales (NIS) (D)	X	(E)	Total Cost (Seedling, Fertilizer, Agro-chemical, Labor fee, etc.) (NIS)	Net Profit (NIS) (F)	-	(G)
(1)			☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(2)			☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(3)			☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(4)			☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
(5)			☐box ☐kg	☐box ☐kg	☐NIS/box ☐NIS/kg							
									(J) Total Net Profit (Baseline Status)			

*2 Same areas with the above Table 6-1 are preferable.

6-3. Comparison between Baseline Status and Present Status

(i) Increase in Profitability **(I) Total Net Profit (NIS) (Present Status)** / **(J) Total Net Profit (NIS) (Baseline Status)** **X 100 -100** %

(ii) Do you feel how much percentage of your farm profits have been increased by EVAP activities? %

7. Farm Management Analysis and Recommendation in Farm Improvement in the Future

7-1. Calculation of Farm Management Indicator

Please calculate the typical farm management indicators using the data in **Table 6-1** following the formula. Those indicators can be used to analyze your farm situations to improve for the future.

	Formula	Farm Management Indicator					
		(C) / (B)	*(D) / (B)*	*(E)*	*(D) / (C)*	*(G) / (B)*	*(H) / (B)*
#	**Crop and Season**	**Productivity (box/dunum or kg/dunum)**	**Sold Amount per Area (box/dunum or kg/dunum)**	**Average Unit Selling Price (NIS/box or NIS/kg)**	**Sold Amount Rate (%)**	**Total Cost per Area (NIS/dunum)**	**Net Profit per Area (NIS/dunum)**
(1)		☐box/dunum ☐kg/dunum	☐box/dunum ☐kg/dunum	☐NIS/box ☐NIS/kg			
(2)		☐box/dunum ☐kg/dunum	☐box/dunum ☐kg/dunum	☐NIS/box ☐NIS/kg			
(3)		☐box/dunum ☐kg/dunum	☐box/dunum ☐kg/dunum	☐NIS/box ☐NIS/kg			
(4)		☐box/dunum ☐kg/dunum	☐box/dunum ☐kg/dunum	☐NIS/box ☐NIS/kg			
(5)		☐box/dunum ☐kg/dunum	☐box/dunum ☐kg/dunum	☐NIS/box ☐NIS/kg			

7-2. Recommendation

If the indicators are **lower** than those of other farmers or average figures, the strategies in the right columns are recommended for the future improvement.	• To apply more fertilizers or change to more effective fertilizers • To improve soil fertility by applying compost or leave fallow to recover soil fertility • To change crop varieties to high yield ones, etc.	• To change transplanting/sowing time and shipping time • To look for new and additional buyers/markets who can buy your products, etc.	• To change selling methods • To improve your product's quality • To sort your products based on buyers' and market's needs • To negotiate properly with buyers • To change selling method by such as group selling, etc.	• To improve product quality and size by controlling pest and diseases, thinning, pruning and applying fertilizers properly, etc.	• To find farm input shops which sell at lower prices • To change procurement methods of farm inputs by such as group buying • To use farm inputs such as fertilizers and agro-chemicals effectively • To change to more effective fertilizers and agro-chemicals • To reduce workload by enhancing work efficiency, etc.	• To change crops • To change crop varieties • To improve all the applicable items listed in the left columns, etc.

8. Comments on EVAP activities and requests to DOA/MOA

Farm Management Analysis and Evaluation of EVAP Activity (For Sheep Raising)

Format-7A

1. Basic Information

Name: _____	Sex: ☐Male ☐Female	Number of labor force in your family for farming: _____
Farmer group name: _____	Tel. number: _____	Is major income of your household from livestock activities? ☐Yes ☐No

2. Evaluation of Information Use

Information		Does your household collect/reflect the information before cropping seasons?						*Example of the information to be collected and used for farming*
		Before or without participating in EVAP			After or with participating in EVAP			
		Yes	No	If Yes, who collect/reflect in your household?	Yes	No	If Yes, who collect/reflect in your household?	
External Information (Information to be collected from outside)	New Production Technique	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*New techniques to improve yield and quality and to reduce production cost, etc.*
	Market Information	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Information on market needs, price trend, consumers' needs, contact number of traders and retailers, etc.*
	Information of Farm Inputs	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Information on crop/livestock variety, price of seedlings, fodder, fertilizer and agro-chemicals, vaccine, animal medicines, etc.*
	Information of Support Program	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Information on government program, NGO's support program, subsidy, available public facility, etc.*
	Information of Climate/Natural Condition	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Weather forecast, pest & disease prediction, frost & drought prediction etc.*
Internal Information (Reflection or review by farmer themselves)	Labor, Workload among Family Members	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Working record of family members, labour employment record, etc.*
	Farm Records	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Record of sales and income, cost of farm inputs, quantity of production, available cash for farming, etc.*
	Land, Equipment and Machinery	☐	☐	☐ Men ☐ Women ☐ Both men and women	☐	☐	☐ Men ☐ Women ☐ Both men and women	*Record of available farm land, land condition (pH, salinity level etc.), how to use available equipment and machinery effectively, etc.*

3. Evaluation of Extension Activities in EVAP and their Application

3-1. Communication with Extentionists

Questions	Answer
1) Did you understand explanation by the extensionists in implementing the EVAP activities?	☐ 1. YES, Very easily ☐ 2. YES, With some difficulties ☐ 3. NO, Very difficult ☐ 4. Not known
2) Have you had more opportunities to consult with the extensionists after implementation of the EVAP activities?	☐ Yes ☐ No ☐ Not know
3) Do you intend to consult with the extensionists when you face problems in the future?	☐ Yes ☐ No ☐ Not know

3-2. Evaluation of Extension Measures

Question	Evaluation				Did you apply any techniques or information obtained from EVAP activities for your agricultural activities?
	Very Satisfied	Satisficed	Dissatisfied	Very Dissatisfied	
	1	2	3	4	
1) Are you satisfied with the study tours (awareness creation tours, market visits, business matching sessions, etc.)?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
2) Are you satisfied with the planning sessions for study tours, farming improvement plan, training plans, etc.?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
3) Are you satisfied with the lectures for technical trainings?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
4) Are you satisfied with the technical training manuals/materials? (Did you easily understand training manuals/materials?)	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know
5) Are you satisfied with the contents of the EVAP Extension Package as a whole?	☐	☐	☐	☐	☐ Yes ☐ No ☐ Not know

4. Evaluation of Effectiveness of Gender Consideration in EVAP

For female members				For both male and female members			
Question	Answer			Question	Answer		
	Yes	No	Not sure		Yes	No	Not sure
A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?	☐	☐	☐	B-1. Have workloads of family members (**particularly female farmers**) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?	☐	☐	☐
A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?	☐	☐	☐	C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?	☐	☐	☐
A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?	☐	☐	☐	C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?	☐	☐	☐
A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?	☐	☐	☐	D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?	☐	☐	☐
A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?	☐	☐	☐	D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?	☐	☐	☐

Format-7A

5. Evaluation on Improvement of Problems

Typical Problems due to lack of information (Please check if you faced before EVAP)		**Were problems improved by techniques or information provided by EVAP?**
Problems in Production	☐ Farm management was bad.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Techniques for disease control was bad.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Mortality of lambs was high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Reproductive performance of ewes was poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Techniques for fattening were poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Techniques for processing milk were poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
Problems in Marketing	☐ Prices of processed products (cheese) were low.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Market channels of processed products (cheese) were limited.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Bargaining/negotiation power of farmers was poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Packaging methods for processed milk were poor.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
Problems in Cost and Labor	☐ Costs for feed were high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Costs for disease control were high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Working hours were long.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
	☐ Transportation cost was high.	☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
Other problems **(Please write if there are other problems)**		☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
		☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement
		☐ 1. Yes, improved ☐ 2. Yes, expect to be improved ☐ 3. No improvement

6. Profitability Assessment

6-1. Present Status (with or after EVAP)

Please fill in the data of sheep raising in which there were **any change** by EVAP **over the last year.** Such examples as i) sheep (new breed, ram, etc.) newly introduced, ii) sheep to which new techniques were applied, iii) sheep which were sold to different markets/persons after EVAP, iv) sheep whose number were increased by increasing fertility of ewes and decreasing mortality of lams, v) sheep whose production costs decreased, etc. could be corresponded. If you have kept farm records, please refer to it.

	(A)		(B)	(C)	(D)	(E)	(F)			(G)	(H)		
#	Sex and age, or Products	*Changes by EVAP*	Farm Size (number)	Total Production (head or kg*1)	Sold Amount (head or kg*1)	Average Selling Price (NIS/head or NIS/kg)	Total Sales (NIS) (D)	X	(E)	Total Cost (Feed, Medicines, Veterinary service, Labor fee, Maintenance, etc.) (NIS)	Net Profit (NIS) (F)	-	(G)
(1)				☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(2)				☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(3)				☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(4)				☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(5)				☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
										(I) Total Net Profit (Present Status)			

*1 If you usually use “ton”, please convert it to “kg” (1,000kg=1ton).

6-2. Baseline Status (without or before EVAP)

Please fill in the assumed or predicted data of the sheep which would have been raised in the farm mentioned in the above table if you had not participated in the EVAP activities. Such examples as i) conventional sheep, ii) sheep which were produced by conventional techniques, iii) sheep which were sold to conventional market, etc. could be corresponded. If you remember historical data of those sheep, you can fill in it. If you cannot fill in, please keep it blank.

	(A)	(B)	(C)	(D)	(E)	(F)			(G)	(H)		
#	Sex and age, or Products	Farm Size*2 (number)	Total Production (head or kg*1)	Sold Amount (head or kg*1)	Average Unit Selling Price (NIS/head or NIS/kg)	Total Sales (NIS) (D)	X	(E)	Total Cost (Feed, Medicines, Veterinary service, Labor fee, Maintenance, etc.) (NIS)	Net Profit (NIS) (F)	-	(G)
(1)			☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(2)			☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(3)			☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(4)			☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
(5)			☐head ☐kg	☐head ☐kg	☐NIS/head ☐NIS/kg							
									(J) Total Net Profit (Baseline Status)			

*2 The same numbers with the above Table 6-1 are preferable.

6-3. Comparison between Baseline Status and Present Status

(i) Increase in Profitability **(I) Total Net Profit (NIS) (Present Status)** / **(J) Total Net Profit (NIS) (Baseline Status)** **X 100 -100** %

(ii) Do you feel how much percentage of your farm profits have been increased by EVAP activities? %

Format-7A

7. Farm Management Analysis and Recommendation in Farm Improvement in the Future

7-1. Calculation of Farm Management Indicator

Please calculate the typical farm management indicators using the data in **Table 6-1** following the formula. Those indicators can be used to analyze your farm situations to improve for the future.

	Formula	Farm Management Indicator					
		(C) / (B)	*(D) / (B)*	*(E)*	*(D) / (C)*	*(G) / (B)*	*(H) / (B)*
#	**Sex and age, or Products**	**Productivity (head/farm or kg/farm)**	**Sold Amount per farm (head/farm or kg/farm)**	**Average Selling Price (NIS/head or NIS/kg)**	**Sold Amount Rate (%)**	**Total Cost per Farm (NIS/farm)**	**Net Profit per Farm (NIS/farm)**
(1)		☐head/farm ☐kg/farm	☐head/farm ☐kg/farm	☐NIS/head ☐NIS/kg			
(2)		☐head/farm ☐kg/farm	☐head/farm ☐kg/farm	☐NIS/head ☐NIS/kg			
(3)		☐head/farm ☐kg/farm	☐head/farm ☐kg/farm	☐NIS/head ☐NIS/kg			
(4)		☐head/farm ☐kg/farm	☐head/farm ☐kg/farm	☐NIS/head ☐NIS/kg			
(5)		☐head/farm ☐kg/farm	☐head/farm ☐kg/farm	☐NIS/head ☐NIS/kg			

7-2. Recommendation

If the indicators are **lower** than those of other farmers or average figures, the strategies in the right columns are recommended for the future improvement.	• To apply sponge (hormone) for induction of heat • To apply artificial insemination to improve genetical character (for better milk yield and body size, etc.) • To change sheep breed • To change feed to more nutritious one, etc.	• To change lambing time by application of sponge (hormone) • To look for new and additional buyers/markets who can buy your products, etc.	• To change selling methods • To improve your product's quality (milk) • To sort your products based on buyers' and market's needs • To negotiate properly with buyers • To change selling method by such as group selling, etc.	• To improve product quality by improvement of process techniques. • To improve animal conditions by fattening and diseases control by vaccination and proper farm management. • To introduce lamb hutch or creep feeding.	• To find feed providers which sell at lower prices • To change procurement methods of farm inputs by such as group buying • To apply feeds effectively • To reduce workload by enhancing work efficiency, etc.	• To process the product (milk to cheese or yogurt, etc.) • To improve all the applicable items listed in the left columns, etc.

8. Comments on EVAP activities and requests to DOA/MOA

Attachment 3-8

Progress of extension activities based on the EVAP extension package with own budget of Palestinian authority (2nd round activity) as of January 2022

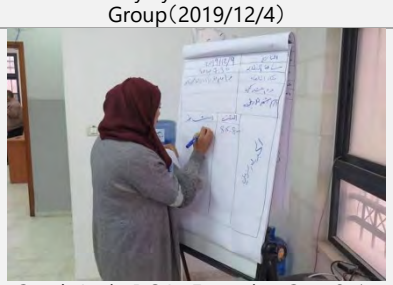
ID	Farmer Group	DOA	Extension Step												
			1-2	2-1	2-2	3-1	3-2	4	5	6-1	6-2	6-3	6-4	6-5	7
A-1	Beit Hasan Farmer Extension Group	Nablus	'18/5/3	'18/7/10											
A-2	Jama'een Farmer Extension Group	Nablus	'18/5/10	'18/5/30	'18/7/17	'18/8/6	'18/9/18	'18/12/10	'19/9/12	'19/12/28	done				
A-3	Beit Foreek Livetsctok Farmer Extension group	Nablus	'18/8/1	'18/8/28	'18/9/20										
A-4	Tell Women Farmer Extension Group	Nablus	'18/7/2	'18/7/12	'18/8/14	'18/10/10									
A-5	Kardala Women Farmer Extension Group	Tubas	'18/7/2	'18/7/9	'18/8/28	'18/9/3	'18/9/18	'19/1/26	done						
A-6	Akaba Men and Women Farmer Extension Group	Tubas	'18/7/5	'18/8/1	'18/8/15	'18/8/30	'18/10/14	done	'21/9/23	'21/10/2	'21/10/17				
A-7	Auja Livetsock Extension Group	Jericho	'18/4/2	'18/4/9	'18/4/26	'18/5/10	'18/6/28	'21/10/28	done						
A-8	Marj Na'jeh Farmer Extension Group	Jericho	'18/4/5	'18/4/26	'18/5/10	'18/6/28	'18/8/31	'18/9/13	'18/11/29	done	done				'21/10/28
A-9	Al-Fara'a Women Extension Group	Tubas	'21/9/20	'21/9/27	'21/11/8										
B-1	Ateel Women Extension Group	Tulkarm	'18/5/10	'18/6/27	'18/7/19	'18/10/2									
B-2	Thenabeh Farmer Extension Group	Tulkarm	'18/5/14	'18/6/28	'18/7/31	'18/9/27	'18/10/24	'18/12/27							
B-3	Kufur Al-Labad Female Farmer Extension Group	Tulkarm	'19/7/1	'19/7/21	'19/8/22	'19/9/26									
B-4	Tulkarem Female Farmer Extension Group	Tulkarm	'19/7/21	'19/9/19	'19/10/8		'21/11/9								
B-5	Jensafout Women Extension Group	Qalqiliya	'18/4/25	'18/6/27	'18/7/25	'18/9/6	'18/9/25	'18/12/13	'19/7/9	'19/8/25	'19/12/4				'21/8/23
B-6	Qalqiliya and Al-Naby Ilyas Farmer Extension Group	Qalqiliya	'18/4/19	'18/6/28	'18/7/19	'18/10/15	'18/10/25	'19/7/3	'19/7/21	'19/8/29	'19/9/8	'19/12/4	'21/9/22	'21/11/3	
B-7	Qalqiliya Livestock Farmer Extension Group	Qalqiliya	'19/8/25	'19/9/8	'19/9/12	'19/9/26	'19/10/3	'21/9/30	'21/11/22						
B-8	Al-Jalameh Farmer Extension Group	Jenin	'19/4/15	'19/9/2	19/9/26	'19/12/4		'21/10/6							
B-9	Al-Jalameh Women Extension Group	Jenin	'19/4/15	'19/9/2	'19/9/26	'19/12/4	done								
B-10	Qabatiya Grape Farmer Extension Group	South Jenin	'19/9/17	'19/11/18	'19/11/24	'19/12/8									
B-11	South Jenin Honeybee Farmer Extension Group	South Jenin	'19/9/23	'19/12/3	done	'21/9/22	'21/10/5	'21/11/25							
C-1	Qarawret Bani Hassan Livestock Farmer Group	Salfit	'19/9/3	'19/9/8	'19/9/11	'19/11/25	'19/12/3	'21/9/23	'21/11/23						
C-2	Beit Liqia Women Extension Group	Ramallah	'19/9/5	'19/10/8	'19/11/24	'21/9/30	'21/10/31								
C-3	Bani Zaid Livestock Farmer Extension Group	Ramallah	'19/8/22	'19/9/12	'19/11/24	'21/10/10									
C-4	Beit Soreek Farmer Extension Group	Jerusalem	'19/9/20	'19/11/27	'19/12/3	'21/9/16	'21/9/27			'20/6/9	'20/6/19				
C-5	North-West Livestock Farmer Extension Group	Jerusalem	'19/11/6	'19/11/27	'19/12/3										
D-1	Wad Rahal Grape farmers extension Group	Bethlehem	'21/9/28	'21/10/18	'21/11/18	done									
D-2	Al-Ma'sareh livestock farmers extension group	Bethlehem	'21/9/27	done	'21/11/21	done	done								
D-3	Hata Livestock Farmers Extension Group	North Hebron	'21/9/28	'21/10/5	'21/10/20	done	done								
D-4	Soreef Vegetables Farmers Extension Group	North Hebron	'21/9/28	'21/10/6	'21/11/17	done	done								
D-5	Khalet el-Dar & Qalqas Vegetables farmers Group	Hebron	'21/9/27	'21/9/30	'21/10/11	'21/11/3	'21/11/23	done							
D-6	Showaikeh& Dier Shams livestock farmers ext. group	South Hebron	'21/9/22	done	done	done									
D-7	Dora Women Farmers Extension Group	South Hebron	'21/11/23	done	done										
D-8	Wad Abu Al-Foul vegetables farmers extension group	Yatta	'21/9/22	'21/10/11	'21/10/24	'21/11/4	'21/11/14	done	done						**Total**
	Number of Activities		33	33	32	27	20	14	10	6	6	1	1	1	2	186
	Estimated Unit Cost (NIS)		250	250	2,250	250	2,250	250	250	2,250	250	250	250	250	250	9,250
	Estimated Sub-total (NIS)		8,250	8,250	72,000	6,750	45,000	3,500	2,500	13,500	1,500	250	250	250	500	162,500

Attachment 3-9

Extension activities based on the EVAP extension package with own budget of Palestinian authority (2nd round activity) as of January 2022

Examples of the activities carried out in the 3rd Contract Period

 Tulkarm DOA: :Extension Step 2-2：Kufur Al-labad Women Extension Group（2019/8/22）	 Qalkiliya DOA: :Extension Step 6：Kufur Al-labad Women Extension Group（2019/8/25）	 Ramallah DOA: :Extension Step 1：Bani Ziad Livestock Farmer Extension Group（2019/8/22）
 Qalkiliya DOA: :Extension Step 1：Qalqilia Livestock Farmers Extension Group（2019/8/25）	 Salfit DOA: :Extension Step 2-1：Qarawet Bani Hassan Livestock Farmer Extension Group（2019/9/3）	 Ramallah DOA: :Extension Step 1：Beit Liqia Vegetable Female Farmer Extension Group(2019/9/5）
 Qalkiliya DOA: :Extension Step 6：Al-Nabi Llyas and Qalqilia Vegetable Farmer Group（2019/9/8）	 Qalkiliya DOA: :Extension Step 2-1：Qalqilia Livestock Farmer Extension Group（2019/9/8）	 Salfit DOA: :Extension Step 2-2：Qarawet Bani Hassan Livestock Farmer Extension Group（2019/9/11）
 Qalkiliya DOA: :Extension Step 2-2：Qalqilia Livestock Farmer Extension Group（2019/9/12）	 Nablus DOA: :Extension Step 5：Jama'een Olive Farmer Extension Group（2019/9/12）	 Ramallah DOA: :Extension Step 2-1：Bani Zaid Al-Sharqyia Farmer Extension Group（2019/9/12）
 South Jenin DOA: :Extension Step 1：South Jenin Grape Farmers Extension Group（2019/9/17）	 Tulkarm DOA: :Extension Step 2-1：Tulkarem Women Extension Group（2019/9/19）	 Jerusalem DOA: :Extension Step 1：Beit Soreek Stone Fruit Farmers Extension Group（2019/9/20）

 South Jenin DOA: :Extension Step 1：South Jenin Honey Bees Farmer Extension Group（2019/9/23）	 Qalkiliya DOA: :Extension Step 2-2：Jensafout Women Extension Group（2019/7）	 Qalkiliya DOA: :Extension Step 2-2：Qalqilia and Al-Naby Ilyas Farmers Extension Group（2019/7）
 South Jenin DOA: :Extension Step 2-2：Qabatiya Grape Farmers Extension Group (2019/11/24）	 Jerusalem DOA: :Extension Step 2-1：Beit Soreek Stone Fruit Farmers Extension Group（2019/11/27）	 Jerusalem DOA: :Extension Step 2-2：North-West Livestock Farmers Extension Group（2019/12/3）
 Salfit DOA: :Extension Step 2-2：Qarawret Bani Hassan Livestock Farmers Group（2019/12/3）	 Jenin DOA: :Extension Step 2-2：Al-Jalameh Farmers Extension Group（2019/12/4）	 Jerusalem DOA: :Extension Step 2-2：Beit Soreek Stone Fruit Farmers Extension Group（2019/12/3）
 Qalkiliya DOA: :Extension Step 6：Jensafout Women Extension Group（2019/12/4）	 Jenin DOA: :Extension Step 2-2：Al-Jalameh Women Extension Group（2019/12/4）	 Qalkiliya DOA: :Extension Step 5：Qalqilia and Al-Naby Ilyas Farmers Extension Group（2019/12/4）
 South Jenin DOA: :Extension Step 2-2：South Jenin Grape Farmers Extension Group（2019/12/8）	 Nablus DOA: :Extension Step 4：Jama'een Farmers Extension Group（2019/12/10）	 South Jenin DOA: :Extension Step 2-1：South Jenin Honey Bees Farmers Extension Group（2019/12/3）



Nablus DOA: :Extension Step 6：Jama'een Farmers Extension Group（2019/12/28）



Jerusalem DOA: :Extension Step 6：Beit Soreek Farmers Extension Group（2020/6/9）



Jerusalem DOA: :Extension Step 6：Beit Soreek Farmers Extension Group（2020/6/19）



Technical Follow-up for Extension Step 7：Profitability Assessment（Qalkiliya DOA）（2021/8/16）



Jensafout Women Farmer Extension Group（Extension Step 7/Qalkiliya DOA）（2021/8/23）



Biet Soreek Farmer Extension Group（Extension Step 3-1/Jerusalem DOA）(2021/9/16)



Al-Fara'a Women Farmer Extension Group（Extension Step 1/Tubas DOA）(2021/9/20)



Qalqiliya and Al-Naby Ilyas Farmer Extension Group（Extension Step 6：Disease Control for Cucumber/Qalkiliya DOA）（2021/9/22）



Wad Abu Al-Foul Farmer Extension Group（Extension Step 1：Yatta DOA）（2021/9/22）



South Jenin Honey Bee Farmer Extension Group（Extension Step 3-1/South Jenin DOA）(2021/9/22)



Shwaikeh and Dier Shams Livestock Farmer Extension Group（Extension Step 1/South Hebron DOA）(2021/9/22)



Qarawet Bani Hassan Farmer Extension Group（Extension Step 4/Salfit DOA）(2021/9/23)



Al-Aqaba Farmer Extension Group（Extension Step 5/Tubas DOA）(2021/9/23)



Al-Fara'a Women Farmer Extension Group（Extension Step 2-1/Tubas DOA）(2021/9/27)



Biet Soreek Farmer Extension Group（Extension Step 3-2/Jerusalem DOA）(2021/9/27)



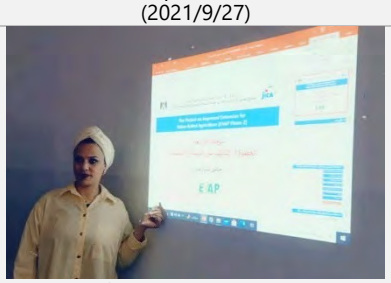
Al-Ma'sareh Livestock Extension Group（Extension Step 1/Bethlehem DOA）(2021/9/27)



Khalet El-Dar and Galqas Farmer Extension Group(Extension Step 1/Hebron DOA)(2021/9/27)



Hata Livestock Farmer Extension Group（Extension Step 1/North Hebron DOA）(2021/9/28)



Al-Reef Al-Janoubi Grape Farmer Extension Group(Extension Step 1/Bethlehem DOA)(2021/9/28)



Soreef Vegetable Farmer Extension Group（Extension Step 1/North Hebron DOA）(2021/9/28)



Biet Liqia Farmer Extension Group（Extension Step 3-1/Ramallah DOA）(2021/9/30)



Khalet El-Dar and Galqas Farmer Extension Group(Extension Step 2-1/Hebron DOA)(2021/9/30)



Qalqilia Livestock Farmer Extension Group(Extension Step 4/Qalkiliya DOA)(2021/9/30)



Al-Aqaba Livestock Farmer Extension Group(Extension Step 6：Sheep Management Training /Tubas DOA)(2021/10/2)



Hata Livestock Farmer Extension Group（Extension Step 2-1/North Hebron DOA）(2021/10/5)



South Jenin Honey Bee Famer Extension Group(Extension Step 3-2/South Jenin DOA)(2021/10/5)



Al-Jalameh Farmer Extension Group（Extension Step 4/Jenin DOA)(2021/10/6)



Soreef Vegetable Farmer Extension Group（Extension Step 2-1/North Hebron DOA）(2021/10/6)



Mazare' Nobani Livestock Farmer Extension Group(Extension Step 3-1/Ramallah DOA)(2021/10/10)



Yatta Vegetable Farmer Extension Group（Extension Step 2-1/Yatta DOA）(2021/10/11)



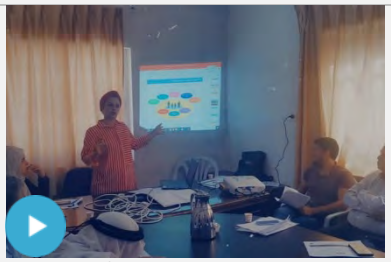
Khalet El-Dar and Galqas Farmer Extension Group（Extension Step 2-1/North Hebron DOA）(2021/10/11)



Al-Aqaba Livestock Farmer Extension Group（Extension Step 6-1：Sheep Management Training/Tubas DOA）(2021/10/17)



Technical Follow-up for Extension Step 7：Profitability Assessment（Jericho DOA）(2021/10/18)



Al-Reef Al-Janoubi Grape Farmer Extension Group（Extension Step 2-1/Bethlehem DOA）(2021/10/18)



Hata Livestock Farmer Extension Group（Extension Step 2-2/North Hebron DOA）(2021/10/20)



Yatta Vegetable Farmer Extension Group（Extension Step 2-2/Yatta DOA）(2021/10/24)



Marj Na'jeh Farmer Extension Group（Extension Step 7/Jericho DOA）(2021/10/28)



Auja Livestock Farmer Extension Group（Extension Step 4/Jericho DOA）(2021/10/28)



Beit Liqia Farmer Extension Group（Extension Step 3-2/Ramallah DOA）(2021/10/31)



Al-Nabi Elyas and Qalqilia Farmer Extension Group（Extension Step 6/Qalkiliya DOA）(2021/11/3)



Khalet El-Dar and Galqas Farmer Extension Group（Extension Step 3-1/Hebron DOA）(2021/11/3)



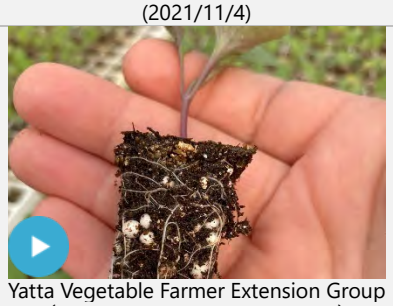
Yatta Vegetable Farmer Extension Group（Extension Step 3-1/Yatta DOA）(2021/11/4)



Al-Fara'a Women Farmer Extension Group（Extension Step 2-2/Tubas DOA）(2021/11/8)



Tulkarem Women Farmer Group（Extension Step 3-2/Tulkarm DOA）(2021/11/9)



Yatta Vegetable Farmer Extension Group（Extension Step 3-2/Yatta DOA）(2021/11/14)



Soreef Women Farmer Extension Group（Extension Step 2-2/North Hebron DOA）(2021/11/17）



Jouret Al-Shama'eh Farmer Extension Group（Extension Step 2-2/Bethlehem DOA）(2021/11/18）



Al-Ma'sara Livestock Farmer Extension Group（Extension Step 2-2/Bethlehem DOA）(2021/11/21）



Qalqilia Livestock Farmer Extension Group（Extension Step 5/Qalkiliya DOA）(2021/11/22）



Khalet El-Dar and Qalqas Vegetable Farmer Extension Group（Extension Step 3-2/Hebron DOA）(2021/11/23）



Dora Women Extension Group（Extension Step 1/South Hebron DOA）(2021/11/23）



Qarawet Bani Hassan Extension Group（Extension Step 5/Salfit DOA）(2021/11/24）



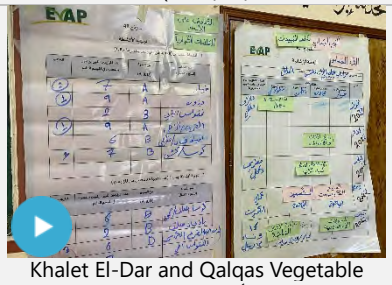
South Jenin Honey Bee Farmer Extension group（Extension Step 4/South Jenin DOA）(2021/11/25）



Dier Shams Farmer Extension Group（Extension Step 2-1/South Jenin DOA）(2021/11/25）



Yatta Vegetable Farmer Extension Group（Extension Step 4/Yatta DOA）(2021/12/6)



Khalet El-Dar and Qalqas Vegetable Farmer Extension Group（Extension Step 4/Hebron DOA）(2021/12/7）



Soreef Women Farmer Extension Group（Extension Step 3-1/North Hebron DOA）(2021/12/9）



Dora Women Extension Group（Extension Step 1/South Hebron DOA）(2021/12/10）



Hata Livestock Farmer Extension Group（Extension Step 3-1/North Hebron DOA）(2021/12/14)



Al-Reef Al-Janoubi Grape Farmer Extension Group（Extension Step 3-1/Bethlehem DOA）(2021/12/16)

 Dier Shams Farmer Extension Group（Extension Step 2-2/South Hebron DOA）(2021/12/16)	 Soreef Women Farmer Extension Group（Extension Step 3-2/North Hebron DOA）(2021/12/21）	 Al-Ma'sara Livestock Farmer Extension Group（Extension Step 3-1/Bethlehem DOA）(2021/12/22）
 Jalameh Farmers Extension GroupExtension Step 5/Jenin DOA）(2021/12/23)	 South Jenin Honey Bee Farmer Extension group（Extension Step 6/SouthJenin DOA）(2021/12/27）	 Yatta Vegetable Farmer Extension Group（Extension Step 5/Yatta DOA）(2022/1/3)
 Qalqilia Livestock Farmer Extension Group（Extension Step 6/Qalkiliya DOA）(2022/1/9)		

Attachment 6-1

Project Design Matrix

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development
Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip
Period of Project: July 2016 - February 2022
Project Site: All Districts of West Bank and Gaza Strip

Version 6
Revised: October 2021

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption
Overall Goals			
In all Districts of West Bank & Gaza Strip, the number of farmers who have experienced a rise in their income through the benefits of extension services based on the Improved EVAP Extension Package have increased.	1. Extension activities using the EVAP Extension Package are carried out annually for at least two farmer groups per DOA in all Districts of the West Bank and Gaza Strip. 2. The average farm income of farmer groups whose extension activities are implemented using the EVAP Extension Package increases by 8%.	Ex-post evaluation	
Project Purpose			
In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen based on the Improved EVAP Extension Package.	The net income*1 from agriculture*2 have increased among the targeted small and medium sized farmers by 8.0% at the time of Project completion*3. *1: Current (nominal) prices will be applied. *2: It will specify agriculture activities related to target crops under EVAP-2. *3: Data on profitability increase of target crops under EVAP-2 for 2 years will be calculated by the target farmers based on their farm records (not at the time of Project completion).	Baseline survey, Project evaluation report (End-line Survey)	1. There are no natural disaster incidents in the region.
Outputs			
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. All targeted MoA and DoA personnel*1 (i.e. the participants of Activity 1.2) demonstrate good understanding of EVAP Extension Package, including its principles and objectives. *1: Those nominated as Project counterparts.	Presentation materials used under Activity 1.4 Interviews	1. There are no drastic climatic changes. 2. The market value of agricultural produce does not decline drastically.
	1.2. All DoA annual plans reflect the EVAP Extension Package.	DoA annual plans	
Output 2: The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	2.1. The Provisional EVAP Extension Package incorporate measures to ensure that its extension services reach out to small and medium sized farmers.	Revisions made through Activities 2.1 through 2.5 and their reasons.	
	2.2. The improved EVAP Extension Package is finalized and approved by JCC.	JCC minutes	
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. All DoAs implement their annual plan without direct support of the Project.	M&E Report of the DoAs one year after implementation of the cycle under Activities 3.1-3.6	
	3.2. More than 70% of the farmers who participated in "Step 2-2: Awareness Creation Tour" in activity 3.6 participate in following training sessions of Step 3 to 7.	Records kept by the extensionists	
	3.3. On average, more than 70% of farmers responded that the problems referred in Step 7 have been "improved" or are "expected to be improved".	Results of Activity 3.7 (End-line Survey Report)	
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. Farming manuals that cover the comprehensive steps from planting to marketing for each relevant agricultural products, based on the needs of the small and medium sized farmers, have	Farming manuals	
	4.2. The farming manuals receive positive feedback from the extensionists and farmers.	Questionnaire survey among extensionists and farmers	

Activities	Inputs		Important Assumption
	The Japanese Side	The Palestinian Side	
1.1 Establish Task Forces for implementation of the Project.	a. Dispatch of Japanese Experts 1. Chief Advisor/ Farm management (1)/ Agricultural Policy/ Fruit production 2. Deputy Chief Advisor/ Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/ Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Animal husbandry/Veterinary/ Animal disease diagnosis 8. Water-saving/ Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/ Planning and reporting system development b. Counterpart training program Trainings (2 times) in Japan c. Equipment and materials Vehicles, other equipment and materials to be agreed upon in consideration of needs. d. Local operation costs: budget related to the Project activities	a. Personnel (Project counterpart) 1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture b. Office space and necessary facilities at Ramallah for Experts c. Local cost (to be specified) Each targeted District will utilize the available resources for implementing “EVAP Extension Package”-based extension services after the second year of each targeted District.	1. Price of agricultural inputs does not suddenly rise.
1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept.			
1.3 Support development of annual extension plans for 1 year by the targeted DoAs with a view to reflecting the EVAP Extension Package in the plans.			
1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3.			
2.1 Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services.			
2.2 Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1.			
2.3 Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package.			**Pre-Conditions**
2.4 Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis.			Palestinian policy for agricultural cooperatives and extensions do not change. The international political environment surrounding Palestine does not drastically deteriorate. Counterpart personnel are properly assigned in MoA and DOA.
2.5 Develop the ‘Provisional EVAP Extension Package’ based on the results of the activities under Activity 2.4.			
3.1 Select target Districts and new subsectors to provide extension services based on the ‘Provisional EVAP Extension Package’.			
3.2 Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups.			
3.3 Review the results of the survey conducted under the Activity 3.2 and categorize the farmer groups in the target areas based on their characteristics.			
3.4 Select the farmer groups to provide extension services based on the ‘Provisional EVAP Extension Package’, taking into account the results of the Activity 3.3.			
3.5 Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4.			
3.6 Provide extension services, including demo farms, based on the ‘Provisional EVAP Extension Package’ to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5.			↓
3.7 Monitor and evaluate the outcome of the extension services provided under the Activity 3.6.			**<Issues and countermeasures>**
4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender			
4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities.			
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1.			
4.4 Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required.			
4.5 Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.			

1) EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Th. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.
2) Regarding the Activities under Output 2, the Project will initially revise the “EVAP Extension Package” in those Districts in which the same subsectors of agriculture as the Districts under the previous phase of EVAP (i.e. irrigated vegetable and livestock) is practiced, in order not to introduce unnecessary elements of complication.
3) Regarding the Activities under Output 3,the Project provides direct support to implement the first cycle of the “EVAP Extension Package” for each District in West Bank. Thereafter, each DOA would be held responsible for independent implementation of “EVAP Extension Package”-based extension services with periodical follow-up by the MOA and Japanese Experts.
4) When targeting Gaza Strip for activities under Output 3, where accessibility is limited for the Japanese Experts due to security advisory, the DOA officials will be invited to West Bank Districts to take part in training or SMS and extensionists of the West Bank Districts provide training in Gaza in order to enable them to independently implement their extension activities with periodical follow-up by the MOA and Japanese Experts. Objectively verifiable indicators for Gaza Strip will be measured for Output 1 only.
5) Refers to those equipment/facilities introduced under EVAP1, including compost-making facilities, silage-making machineries, equipment for soil analysis laboratory, AI service-related equipment.

Plan of Operation

Version 6
Revised: October 2021

Project Title: The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Inputs	Phase	1st Period												2nd Period												3rd Period												Remarks
	Year	2016						2017							2018							2019							2020							2021				'22	
	Month	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
Expert																																																						
Chief Advisor/ Farm Management (1)/ Agricultural Policy/ Fruit production	Plan																																																					
	Actual																																																					
Deputy Chief Advisor/ Farm Management (2)/ Field Crop Cultivation (1)	Plan																																																				
	Actual																																																					
Extension Planning/Training Materials Development	Plan																																																				
	Actual																																																					
Gender/Farmers Organizations	Plan																																																				
	Actual																																																					
Vegetable Production (1)	Plan																																																				
	Actual																																																					
Vegetable Production (2)/ Field Crop Cultivation (2)	Plan																																																				
	Actual																																																					
Animal Husbandry/ Veterinary/ Animal Disease Diagnosis	Plan																																																				
	Actual																																																					
Water-Saving/ Water Use Techniques/ Soil Management	Plan																																																				
	Actual																																																					
Marketing	Plan																																																				
	Actual																																																					
Monitoring/ Planning and Reporting System Development	Plan																																																				
	Actual																																																					
Equipment																																																					
Vehicles	Plan																																																				
	Actual																																																					
Facilities/equipment necessary for effective extension	Plan																																																				
	Actual																																																					
Training in Japan																																																				
Training for Counterpart Personnel	Plan																																																				
	Actual																																																					

Remarks:
- Planned assignment schedules were modified as the Project period was extended. Their actual assignment schedules/periods were modified in consideration of progress of the Project activities.
- Minibus and 4WD pickup truck were procured, and are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities.
  Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018.
  Eight 4WD pickup trucks provided to MOA in March were delivered to the 3rd and 4th Cycle DOAs on 25th Mar. 2020.
  Two minibuses were provided to MOA in May 2021.
- 1st training in Japan was held in Oct. 2018.
  10 MOA counterparts participated in SHEP/ISMAP Workshop held in Egypt (1-6 Mar. 2020).
  2nd training in Japan planned in Oct. 2020 was cancelled. Online workshops connecting between Japan and Palestine is planned to be implemented in Oct. & Nov. 2021.

Activities / Sub-Activities	Year / Month	2016						2017							2018							2019							2020							2021				'22	Responsible Organization: Japan	Palestine
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.																																											
1.1 Establish Task Forces for implementation of the Project.	Plan																																									JICA	MOA
	Actual																																										
1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and District Agriculture Offices (DoAs).	Plan																																								JICA	MOA
	Actual																																										
1.3 Support development of annual extension plans for 1 year by the targeted DoAs.	Plan																																								JICA	MOA
	Actual																																										
1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans.	Plan																																								JICA	MOA
	Actual																																										
Output 2: The EVAP Extension Package[1] is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank & Gaza Strip.																																											
2.1 Review the EVAP Extension Package, with a view to mainstreaming gender and improving the effectiveness of extension services.	Plan																																								JICA	MOA
	Actual																																										
2.2 Propose a Revised Draft EVAP Extension Package.	Plan																																									JICA	MOA
	Actual																																										
2.3 Select farmer groups from among Districts in the West Bank for the purpose of revision of the EVAP Extension Package.	Plan																																									JICA	MOA
	Actual																																										
2.4 Provide extension services based on the Revised Draft EVAP Extension Package on a trial basis.	Plan																																									JICA	MOA
	Actual																																										
2.5 Develop the 'Provisional EVAP Extension Package'.	Plan																																									JICA	MOA
	Actual																																										
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.																																											
3.1 Select target Districts and new subsectors to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan																																									JICA	MOA
	Actual																																										
3.2 Conduct survey on agricultural practice including gender roles in the target Districts.	Plan																																									JICA	MOA
	Actual																																										
3.3 Review the results of Activity 3.2 and categorize the farmer groups in the target areas.	Plan																																									JICA	MOA
	Actual																																										
3.4 Select the farmer groups to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan																																									JICA	MOA
	Actual																																										
3.5 Develop the details in each extension step.	Plan																																									JICA	MOA
	Actual																																										
3.6 Provide 'Provisional EVAP Extension Package'-based extension services, including demo farms, to the selected farmer groups.	Plan																																									JICA	MOA
	Actual																																										
3.7 Monitor and evaluate the outcome of the Activity 3.6.	Plan																																									JICA	MOA
	Actual																																										
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.																																											
4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers.	Plan																																									JICA	MOA
	Actual																																										
4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities.	Plan																																									JICA	MOA
	Actual																																										
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced.	Plan																																										JICA	MOA
	Actual																																										
4.4 Verify and conduct field demo farms, as required, the applicability of the newly introduced technology based on the verification criteria.	Plan																																										JICA	MOA
	Actual																																										
4.5 Develop farming manuals that cover the comprehensive steps from planting to marketing.	Plan																																										JICA	MOA
	Actual																																										
Duration/Phasing	Plan																																											
	Actual																																										

Monitoring Plan	Year / Month	2016						2017							2018							2019							2020							2021				'22	Remarks
		7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
Monitoring																																												
Joint Coordinating Committee	Plan	●						●						●						●						●						●						●					9th JCC was held on 7 Oct. 2021.
	Actual	●						●						●						●						●						●						●					
Set-up the Detailed Plan of Operation	Plan	▲																																									
	Actual	▲																																									
Submission of Monitoring Sheet	Plan	▲					▲					▲					▲					▲					▲					▲					▲						
	Actual	▲					▲					▲					▲					▲					▲					▲					▲						
Monitoring Mission from Japan	Plan																																									JICA Terminal Evaluation on the Project was held Sep. - Oct. 2021.
	Actual																																									
Joint Monitoring	Plan																																									
	Actual																																									
Post Monitoring	Plan																																									
	Actual																																									
Reports/Documents																																										
Inception Report	Plan	▲																																								
	Actual	▲																																								
Progress Report	Plan													▲												▲												▲					
	Actual													▲												▲												▲					
Training Materials	Plan													▲												▲															▲		
	Actual													▲												▲															▲		
Project Completion Report	Plan																																								▲		
	Actual																																										
Public Relations																																										
Establishment and Operation of Web Site	Plan							▲																																		In stead of website, Facebook has been used for public relations activities.
	Actual							▲																																			
Seminars	Plan																																								▲		
	Actual																																										

[1] EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.

Attachment 6-2

List of Counterparts of EVAP-2

1. Project Director, Project Manager and Members of the Taskforce

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
Project Director	JCC Chairman	Mr. Abdullah Lahlouh	Deputy Minister	MOA	Sep. 2016 - Dec. 2017	M	
Project Director	JCC Chairman	Mr. Amjad Salah	Assistant Deputy Minister for Technical Affaires	MOA	Jan. 2017 - up to date	M	
Project Manager	JCC member	Mr. Salaheddin Al-Baba	General Director	GDoERD	Sep. 2016 - up to date	M	
Extension Taskforce	Member	Mrs. Ala Ismail	Head of Division	Rural Development Dept. GDoERD	Oct. 2016 - Jun. 2021	F	In charge of Gender Training
			Director	Rainfed Crops Dept. GDoERD	Jun. 2021 - up to date		
	Member	Mr. Jamal Abdo	Head of Division	Rural Development Dept. GDoERD	Oct. 2016 - up to date	M	EVAP Official Trainer
	Member	Ms. Doha Abdi	Director	Mass Media Dept. GDoERD	Oct. 2016 - up to date	F	
	Member	Ms. Fatima Ajouli	Head of Division	Mass Media Dept. GDoERD	Oct. 2016 - up to date	F	In charge of GPF survey
	Member	Ms. Hanan Hajajeh	Head of Division	Mass Media Dept. GDoERD	Oct. 2016 - Nov. 2018	F	Move to MOA HQ
	Member	Mr. Ahmed Asmar	Head of Division	Mass Media Dept. GDoERD	Jan. 2017 - up to date	M	
	Member	Mr. Moyaed Salman	Director	Ruminant Dept. GDoERD	Apr. 2017 - up to date	M	EVAP Official Trainer
	Member	Mr. Walid Lahlouh	Director	Bee Dept. GDoERD	Apr. 2017 - up to date	M	EVAP Official Trainer
	Member	Mr. Fadi Fuqaha'	Head of Division	Bee Dept. GDoERD	May 2018- up to date	M	
	Member	Ms. Reem Fathi	Director	Poultry Dept. GDoERD	Apr. 2017 - up to date	F	EVAP Official Trainer
	Member	Mr. Qutaibeh Khanfar	Head of Division	Poultry Dept. GDoERD	Dec. 2018 - up to date	M	
	Member	Mr. Khaldoun Ghadban	Head of Division	Horticulture Dept. GDoERD	Apr. 2017 - up to date	M	
	Member	Mr. Tareq Abu Baker	Head of Division	Field Crop Dept. GDoERD	Apr. 2017 - up to date	M	
	Member	Ms. Safa' Ibsais	Director	Rural Development Dept. GDoERD	Apr. 2017 - up to date	F	Member of Technical Taskforce

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
	Member	Mr. Thafer Hamshari	Director	Marketing Information Dept. GD of Agricultural Marketing	Apr. 2017 - up to date	M	Involved in market visits/matching
	Member	Mr. Nihad Injoum	Head of Division	Local Market Dept. GD of Agricultural Marketing	Apr. 2017 - up to date	M	Involved in market visits/matching
	Member	Mr. Ramiz Obaid	Director	Olives tree Dept. GDoERD	Oct. 2016 - up to date	M	Member of Technical Taskforce
	Member	Mr. Husam Weld Hamad	Head of Division	Olives tree Dept. GDoERD	Oct. 2018 - up to date	M	
	Member	Mr. Abdelkader AL Kharraz	Director	Vegetables Dept. GDoERD	Oct. 2016 - up to date	M	Member of Technical Taskforce
Technical Taskforce	Member	Mr. Mahmoud Fatafta	Director	Ruminant Dept. GDoERD	Oct. 2016 - Apr. 2018	M	Moved to GDoPP
	Member	Mr. Fathi Bast	Head of Division	Ruminant Dept. GDoERD	Aug. 2017 - up to date	M	
	Member	Mr. Ghazi Kakani	Director	Animal Fodder Dept. GDoERD	Oct. 2016 - Oct.2018	M	Member of Technical Taskforce
	Member	Mr. Osama Doleh	Director	Animal Fodder Dept. GDoERD	Oct. 2018 - up to date	M	Member of Technical Taskforce
	Member	Mrs. Asmahan Ahmad Ghrouf	Director	Rainfed Crops Dept. GDoERD	Oct. 2016 - Nov. 2017	F	Moved to Ramallah DOA
	Member	Mr. Fawwaz AL Thaher	Director	PCLI, NARC	Oct. 2016 - up to date	M	
	Member	Mr. Mahmoud Barham	Director	Irrigation Dept. GD of Agricultural Water & Irrigation	Oct. 2016 - up to date	M	
	Member	Mr. Mohammed Talahmeh	Head of Division	Irrigation Dept. GD of Agricultural Water & Irrigation	May 2021 - up to date	M	Delivery training
	Member	Mr. Sameh Jarar	Head of Division	Biodiversity, NARC	Oct. 2016 - up to date	M	
	Member	Mr. Abdulrahman Al-Taibawi	Director	Head of Labs, NARC	Nov. 2017 - up to date	M	
	Member	Mrs. Noha Qadomi	Head of Division	Nablus Lab., NARC	Oct. 2016 - up to date	F	Involved in soil diagnosis & test
	Member	Mr. Imad Ghenma	Director	Soil Department	Dec. 2017 - up to date	M	
	Member	Dr. Osama Awad	Director	GD of Animal Health & Veterinary Services	Sep. 2017 - up to date	M	Brochures contents' review & approval
	Member	Mr. Khalil Allami	Director	Director of Finance Dept.	May 2017 - up to date	M	

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
	Member	Ms. Sanabil Barghouthi	Head of Section	GD of Finance & Admin.	Oct. 2018 - up to date	F	Involved in Payment request & settlement
	Member	Dr. Saeed Barghouthi	Veterinary	DVS of Ramallah	Feb. 2019 - up to date	M	Involved in training
	Member	Dr. Ali Ziadan	Veterinary	DVS of Jerusalem	Feb. 2019 - up to date	M	Involved in training
	Member	Mr. Wael Halaweh	Team Leader of A.I.	Palestinian Center for Livestock Improvement (PCLI), NARC	Oct. 2017 - up to date	M	A. I. Team
	Member	Mr. Mo'aeen Shtayeh	A.I team member	PCLI, NARC	Oct. 2017 - up to date	M	A. I. Team
	Member	Mr. Baher Ghazal	A.I team member	PCLI, NARC	Oct. 2017 - up to date	M	A. I. Team
	Member	Mr. Mustafa Donbok	A.I team member	PCLI, NARC	Oct. 2017 - up to date	M	A. I. Team
	Member	Mr. Haleemeh Al-zo'bi	A.I team member	Beit Qad Station, NARC	Oct. 2017 - up to date	M	A. I. Team
	Member	Ms. Rawda Irshaid	A.I team member	Beit Qad Station, NARC	Oct. 2017 - up to date	F	A. I. Team
	Member	Mr. Fathi Na'erat	A.I team member	Beit Qad Station, NARC	Oct. 2017 - up to date	M	A. I. Team
Monitoring Taskforce	Member	Mr. Odeh Sabarneh	Director	Fruit Trees Dept. GDoERD	Oct. 2016 - up to date	M	Member of Extension and Technical Taskforces
	Member	Ms. Sana' Abu Ayyash	Acting Director	Extension Planning Dept. GDoERD	Oct. 2016 - Mar. 2018	F	
	Member	Ms. Maram Sawalha	Director	Extension Planning Dept. GDoERD	Apr. 2018 - Jun. 2021	F	Left the MOA for one year
	Member	Ms. Ahlam Odeh	Head of Division	M & E Dept. GD of Planning & Policies	Oct. 2016 - Mar. 2018	F	
	Member	Ms. Safinaz Bader	Head of Division	M & E Dept. GD of Planning & Policies	Apr. 2018 - Jul. 2019	F	Moved from Al-Aroub Station Moved to GIS Dept.
	Member	Mr. Ali Al-qam	Head of Division	M & E Dept. GD of Planning & Policies	Sept. 2019 - up to date	M	
Total Number	52				Male	38 (73.1%)	
					Female	14 (26.9%)	

2. Counterparts of DOAs

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
Jericho DOA	C/P	Mr. Abdelghaffar Dawabsheh	Director	Extension Service Dept.	Oct. 2016 -Mar. 2018	M	Moved to G.D. of Fishery
	C/P	Mr. Raed Bsharat	Director	Extension Service Dept.	Apr. 2018 - Feb. 2021	M	Moved from Jenin DOA Moved to NARC, Feb. 2021
	C/P (field activity)	Mr. Ali Abdo Shakhshir	Head of Division	Livestock (Ruminants)	Oct. 2016 -up to date	M	A.I. Team
	C/P (field activity)	Mr. Walid Hanany	Head of Section	Livestock (Ruminants)	Oct. 2016 - Oct. 2017	M	Moved to Jerusalem DOA
	C/P (field activity)	Mr. Riyad Abu Samra	Head of Section	Livestock (Ruminants)	Oct. 2016 - Apr. 2017	M	Moved to Qalqilia DOA
	C/P (field activity)	Mr. Awad Daraghmeh	Head of Division	Vegetables	Oct. 2016 - Feb. 2021	M	
			Acting Director	Extension Service Dept.	Feb. 2021 -up to date		
	C/P (field activity)	Mr. Amin Mustafa Bsharat	Head of Section	Vegetable	Oct. 2016 - up to date	M	
	C/P (field activity)	Mr. Islam Bsharat	Head of Section	Vegetable/Jeftlik Extension Unit	Oct. 2016 - up to date	M	
	C/P (field activity)	Mr. Thaer Bsharat	Head of Section	Vegetables	Oct. 2016 - Oct. 2017	M	Moved to Ramallah DOA
	C/P (field activity)	Ms. Noor Awatleh	Head of Division	Rural Women	Oct. 2016 - up to date	F	
	C/P (field activity)	Mr. Mohammed Hajeh	Head of Division	Marketing	Jan. 2017- Dec. 2017	M	Moved to MOE
Nablus DOA	C/P (Director of Extension)	Mr. Majed Kharaz	Director	Extension Service Dept.	May 2017 - Dec. 2018	M	Moved to technical department, then appointed as DG of Salfit DOA in Nov. 2020
	C/P (Director of Extension)	Mr. Bara' Alghoul	Director	Extension Service Dept.	Dec. 2018 - Apr. 2021	M	Moved to training center, Tulkarem
	C/P (Director of Extension)	Mr. Nihad Salahat	Director	Extension Service Dept.	Apr. 2021- up to date	M	Moved from the technical Dept. at Nablus DOA
	C/P (field activity)	Mr. Majdi Aghbar	Head of Division	Ruminants	Oct. 2016 - up to date	M	A.I. Team
	C/P (field activity)	Mr. Samer Hafeth Hanany	Head of Division	Ruminants	Oct. 2016 - up to date	M	
	C/P (field activity)	Mr. Imad Subhi Eid	Head of Division	Vegetable	Oct. 2016 - Dec. 2018	M	Moved to G.D. of Plant Protection
	C/P (field activity)	Mr. Mohammad Ashour	Head of Division	Fruit Trees Dept.	Oct. 2016 - up to date	M	
	C/P (field activity)	Mrs. Shams Sartawi	Head of Division	Rural Development	Oct. 2016 - up to date	F	
	C/P (field activity)	Mrs. Kawther Al-Shater	Head of Division	Rain fed crops	Oct. 2016 - up to date	F	
	C/P (field activity)	Mr. Ja'far AL-Khayat	Head of Division	Mass Media	Oct. 2016 - up to date	M	
	C/P (field activity)	Ms. Ola Abu Hijleh	Head of Division	Marketing	Jan. 2017 - up to date	F	Involved in EVAP marketing activities
Tubas DOA	C/P	Mr. Monzer Khriawesh	Director	Extension Service Dept.	Oct. 2016 - Mar. 2018	M	Moved to Jenin DOA Retired, Nov. 2019
	C/P	Mr. Amer Shawkat Lubadeh	Director	Extension Service Dept.	Mar. 2018 - up to date	M	

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
	C/P (field activity)	Mr. Majdi Bsharat	Head of Division	Ruminants Dept.	Oct. 2016 - up to date	M	
	C/P (field activity)	Mr. Ihab Malhis	Head of Division	Honey Bees¥ Livestock	Oct. 2016 - up to date	M	A.I. Team
	C/P (field activity)	Mrs. Zafaf Abu Shehadeh	Head of Division	Fruit Trees	Oct. 2016 - up to date	F	
	C/P (field activity)	Mr. Hashim Sawaftah	Head of Unit	North Al-Aghwar Extension Unit (became N. Al-Aghwar DOA in Apr. 2018)	Oct. 2016 - Jun. 2021	M	
			Director	North of Al-Aghwar DOA	Jun. 2021 - up to date		
	C/P (field activity)	Mrs. Haneen Al-Masri	Head of Division	Rural Women	Oct. 2016 - Nov. 2016	F	Moved to Nablus DOA
	C/P (field activity)	Ms. Elham Fahmi Hamdan	Head of Division	Rural Women/Mass Media	Oct. 2016 - up to date	F	
	C/P (field activity)	Mr. Eyad Rabayia	Head of Division	Marketing	Jan. 2017 - up to date	M	Involved in EVAP marketing activities
Jenin DOA	C/P	Mr. Raed Bsharat	Director	Extension Service Dept.	Sep. 2017 - Mar. 2018	M	Moved to Jericho DOA Moved to NARC, Feb. 2021
	C/P	Mr. Monzer Khriawesh	Director	Extension Service Dept.	Apr. 2018 - Nov. 2019	M	Moved to Jenin DOA Retired, Nov. 2019
	C/P (field activity)	Mr. Samer Farah	Head of Division	Rainfed Crops Dept.	Sep. 2017 - up to date	M	
	C/P (Director of DOA)	Ms. Lama Abu Baker	Director	South Jenin DOA	Sept. 2017 - up to date	F	Promoted to Director of South Jenin DOA (from Apr. 2018)
	C/P (field activity)	Mr. Jawwad Zakarneh	Head of Division	Vegetables Dept.	Sept. 2017 - up to date	M	
	C/P (field activity)	Ms. Maha Y.Jaradat	Head of Division	South Jenin DOA Olive and Planning	Sept. 2017 - up to date	F	Moved to South Jenin DOA (from Apr. 2018)
	C/P (field activity)	Mrs. Randa Hassan Sbitan	Head of Division	South Jenin DOA Director of Extension	Sept. 2017 - up to date	F	Moved to South Jenin DOA (from Apr. 2018)
	C/P (field activity)	Mr. Ragheb Ziad	Head of Division	Al Siyleh Al Harthyeh Extension Unit	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Imad Fayyad	Head of Division	South Jenin DOA Agricultural Services	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Fadi Fayyad	Head of Division	South Jenin DOA Vegetables	Aug. 2018 - up to date	M	
	C/P (field activity)	Ms. Majdal Abu Hasan	Head of Division	South Jenin DOA Horticulture	Dec. 2018 - up to date	F	
	C/P (field activity)	Mr. Tayseer Al-Sadiq	Head of Division	Fishery	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Jihad Rabayia	Head of Division	Marketing	Sep. 2017 - up to date	M	Involved in EVAP marketing activities

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
Tulkarem DOA	C/P	Mr. Mamoon Tayeh	Director	Extension Service Dept.	Sep. 2017 - Mar. 2018	M	Moved to technical department, Tulkarm DOA
	C/P	Mr. Sharif Jayousi	Director	Extension Service Dept.	Apr. 2018 - up to date	M	
	C/P (field activity)	Mr. Samer Droobi	Head of Division	Vegetables Dept.	Sep. 2017 - up to date	M	
	C/P (field activity)	Ms. Haifa Omar	Head of Division	Vegetables Dept.	Sep. 2017 - up to date	F	
	C/P (field activity)	Ms. Maysoon Khader	Head of Division	Rural Women Dept.	Sep. 2017 - up to date	F	
	C/P (field activity)	Mr. Othman Arafat	Head of Division	Honey Bees Dept.	Sep. 2017 - Jun. 2021	M	Retired, Jun. 2021
	C/P (field activity)	Ms. Rola Al-Jamal	Head of Section	Mass Media	Sep. 2017 - up to date	F	
	C/P (field activity)	Ms. Hana' Khraisheh	Head of Section	Rain fed crops	Sep. 2017 - up to date	F	
	C/P (field activity)	Mr. Nabil Hamdan	Head of Division	Horticulture Dept.	Sep. 2017 - up to date	M	
Qalqilia DOA	C/P	Mrs. Nesreen Barham	Director	Extension Service Dept.	Sep. 2017 - up to date	F	
	C/P (field activity)	Mr. Ahmed Shhab	Head of Division	Ruminants Dept.	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Bashar Shwahneh	Head of Division	Ruminants Dept.	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Mohammed Abu Saleh	Head of Division	Vegetables Dept.	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Mohammed Abu Issa	Head of Division	Vegetables Dept.	Sep. 2017 - up to date	M	
	C/P (field activity)	Mr. Osama Abu Hamdeh	Head of Division	Mass Media	Sep. 2017 - up to date	M	
	C/P (field activity)	Ms. May Nazzal	Head of Division	Rural Development	Sep. 2017 - up to date	F	Moved to South Hebron DOA, May 2021
	C/P (field activity)	Mr. Sameh Badwan	Head of Division	Marketing	Sep. 2017 - up to date	M	Involved in EVAP marketing activities
Khanyounis DOA	C/P	Mr. Kamal Abu Shamaleh	Director	Khanyounis DOA	Nov. 2016 - Jun. 2018	M	Retired
	C/P (Logistic)	Mr. Maged Shaheen	Director	MOA-HQ, Gaza	Nov. 2016 - up to date	M	Appointed in Nov. 2016. However, activities for Gaza has been suspended.
	C/P (Extension)	Mr. Mahmoud Abed	Director	MOA-HQ, Gaza	Nov. 2016 - up to date	M	
	C/P (Mass media)	Mr. Naser Rabah	Head of Division	Mass media, MOA-HQ, Gaza	Nov. 2016 - up to date	M	
	C/P (Vegetable)	Mr. Ashraf Abu Daqa	Head of Division	Vegetable Dept.	Nov. 2016 - up to date	M	
	C/P (Vegetable)	Mr. Wael Wafi	Head of Division	Vegetable Dept.	Nov. 2016 - up to date	M	
	C/P (Fruit Tree)	Mr. Mahmoud Abu Riada	Head of Divisi+D83:H92on	Ruminants Dept.	Nov. 2016 - up to date	M	
	C/P (Fruit Tree)	Mr. Ayham An-Najjar	Head of Division	Ruminants Dept.	Nov. 2016 - up to date	M	
	C/P (Livestock)	Mr. Nabil Abu Mustafa	Head of Division	Ruminants Dept.	Nov. 2016 - up to date	M	
	C/P (Livestock)	Mr. As'ad Abu Ita'aimeh	Head of Division	Ruminants Dept.	Nov. 2016 - up to date	M	
	C/P (Rainfed Crops)	Mr. Ashraf Qdaih	Head of Division	Rainfed Crops Dept.	Nov. 2016 - up to date	M	
	C/P (Rainfed Crops)	Mr. Kanan Al-Abadleh	Head of Division	Rainfed Crops Dept.	Nov. 2016 - up to date	M	
	C/P (Gender)	Ms. Monda Al-Joa'aidi	Head of Division	Rural Women Dept.	Nov. 2016 - up to date	F	
	C/P (Gender)	Ms. Inas Al-Ghol/Na'meh Abed	Head of Division	Rural Women Dept.	Nov. 2016 - up to date	F	
Salfit DOA	C/P (Key)	Mr.Majed Kharaz	Director General	Salfit DOA	Nov. 2020 - up to date	M	

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
	C/P (Key)	Mr. Labeeb Obaid	Director	Extension Services Dept.	Oct. 2018 - up to date	M	
	C/P (field activity)	Ms. Amany Al-Zeer	Head of Division	Horticulture & Olive	Oct. 2018 - up to date	F	
	C/P (field activity)	Ms. Maysa' Ma'kouseh	Head of Division	Rural Development	Oct. 2018 - up to date	F	
	C/P (field activity)	Mr. Ma'en Mohammed Abedul Razaq	Head of Division	Bee keeping	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Ahmed Abdullah	Head of Division	Livestock	Oct. 2018 - up to date	M	
	C/P (field activity)	Ms. Rula Esam Jaber	Head of Division	Mass Media, Field Crops	Oct. 2018 - up to date	F	
	C/P (field activity)	Ms. Oland Mohammed Jamil Ajloni	Head of Division	Vegetables	Oct. 2018 - up to date	F	
Ramallah DOA	C/P (Key)	Ms. Asmahan Ghrouf	Director	Extension Services Dept.	Oct. 2018 - up to date	M	Moved from GDoERD
	C/P (field activity)	Mr. Mohammed Darabee'	Head of Section	Horticulture	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Ahmed Al-Boom	Head of Division	Livestock	Oct. 2018 - up to date	M	
	C/P (field activity)	Ms. Jumana Zaid	Head of Division	Horticulture	Oct. 2018 - up to date	F	
	C/P (field activity)	Mr. Ahmed Talib	Head of Division	Vegetables	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Thaer Bsharat	Head of Division	Field Crops	Oct. 2018 - up to date	M	
	C/P (field activity)	Ms. Salam Dalayshi	Head of Division	Mass Media	Oct. 2018 - up to date	F	
	C/P (field activity)	Ms. Haifa Al-Mahseeri	Head of Division	Rural Development	Oct. 2018 - up to date	F	
	C/P (field activity)	Mr. Sami Al-Rimawi	Head of Division	Poultry	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Saleh Al-Azhari	Head of Division	Bee keeping	Oct. 2018 - up to date	M	
Jerusalem DOA	C/P (Key)	Mr. Jehad Barghouthi	Director	Extension Services Dept.	Oct. 2018 - up to date	M	
	C/P (field activity)	Ms. Isra' Al-Natsheh	Head of Division	Vegetables	Oct. 2018 - up to date	F	
	C/P (field activity)	Mr. Taha Al-Jamal	Head of Division	Horticulture	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Jamil Jahalin	Head of Division	Livestock	Oct. 2018 - up to date	M	
	C/P (field activity)	Ms. Nabila Samara	Head of Division	Rural Development	Oct. 2018 - up to date	F	
	C/P (field activity)	Mr. Imad Tawil	Head of Division	Field Crops	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Imad Damra	Head of Division	Bee keeping	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Mohammed Sarhan	Head of Division	Olive Trees	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Sa'oud Abu Karish	Head of Division	Mass Media, Poultry	Oct. 2018 - up to date	M	
	C/P (field activity)	Mr. Ali Ghithan	Head of Division	Admin & Finance	Oct. 2018 - up to date	M	
Bethlehem DOA	C/P (Key)	Mr. Mahmoud Shaheen	Director	Extension Services Dept.	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Hussien Atteyeh	Head of Division	Horticulture	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Mohammed Basha	Head of Division	Livestock	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. Kefah Sahoury	Head of Division	Rural Development	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Yousif Salah	Head of Division	Olive/Grape Trees	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. Niveen Salameh	Head of Division	Al-Khader Extension Unit	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Yousi Obyait	Head of Division	Janata Extension Unit	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Ayman Zawahreh	Head of Section	Taqo' Extension Unit/Livestock	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. Fida' Abed Zawahreh	Head of Section	Mass Media	Oct. 2019 - up to date	F	

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
	C/P (field activity)	Ms. Tahani Dara'awi	Head of Section	Poultry	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Adnan Jabareen	Head of Section	Vegetables	Oct. 2019 - up to date	M	
	C/P (field activity)	Dr. Abdelmu'ti AL Sharabati	Head of Section	Field Level Veterinarian	Oct. 2019 - up to date	M	One time delivery training
North Hebron DOA	C/P (Key)	Mr. Iyad Za'aqiq	Director	Extension Services Dept.	Oct. 2019 - Jan. 2021	M	
	C/P (Key)	Mr. Ayman Attawneh	Director	Extension Services Dept.	Jan. 2021 - up to date	M	
	C/P (field activity)	Mr. Ibrahim Arar	Head of Division	Horticulture	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. Shoq Bahar	Head of Division	Rural Development	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Judai' Faroukh	Head of Division	Mass Media/Vegetables	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Samer Jahshan	Head of Division	Livestock	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Rana Ikhleel	Head of Division	Biet Ummar Extension Unit	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. Sawsan Alami	Head of Division	Olive	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Firas Awad	Head of Section	Extension Agent/Biet Ummar Extension Unit	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Sharaf Abu Karish	Head of Section	Beekeeping/Poultry	Oct. 2019 - up to date	M	
Hebron DOA	C/P (Key)	Ms. Fadwa Abu Sharar	Director	Extension Services Dept.	Oct. 2019 - Jun. 2021	F	Assigned to the Agr. Census in Jun. 2021
	C/P (Key)	Ms. Ruba Al-Nazer	Head of Division	Extension Services Dept.	Oct. 2019 - up to date	F	Take over Ms. Fadwa's role as of Jun. 2021
	C/P (field activity)	Ms. Haya Za'aqia	Head of Division	Vegetables (Sa'eer Unit)	Oct. 2019 - up to date	F	Moved to North Hebron DOA, Jan. 2021 (but still follow-up EVAPs activities in Sa'eer area)
	C/P (field activity)	Ms. Faten Al-Tamimi	Head of Division	Vegetables	Oct. 2019 - up to date	F	
	C/P (field activity)	Ms. Majdoleen Rajabi	Head of Division	Horticulture	Oct. 2019 - up to date	F	
	C/P (field activity)	Ms. Bahar AL Za'tari	Head of Division	Field Crops	Oct. 2019 - up to date	F	
	C/P (field activity)	Ms. Hind Al-Ja'bari	Head of Division	Rural Development	Oct. 2019 - up to date	F	
South Hebron DOA	C/P (Key)	Mr. Fadel Mahariq	Director	Extension Services Dept.	Oct. 2019 - up to date	M	
	C/P (Key)	Ms. Manar Manasra	Head of Division	Rural Development	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Wael Amro	Head of Division	Mass Media	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Ziad Abu Rahmeh	Head of Division	Vegetables	Dec 2020 - up to date	M	
	C/P (field activity)	Mr. Amer Al Tel	Head of Division	Horticulture	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. Ameera A. Abu Jaheesha	Head of Division	Dier Samit Ext. Unit	Oct. 2019 - up to date	F	
	C/P (field activity)	Ms. Seema M. Nammoreh	Head of Division	Poultry	Oct. 2019 - up to date	F	
Yatta DOA	C/P (Key)	Dr. Iyad Farajallah	Director	Yatta DOA	Oct. 2019 - up to date	M	
	C/P (Key)	Mr. Loai Abu Eid	Head of Division	Extension/ Poultry	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Ayman Hathaleen	Head of Division	Extension/ Livestock	Oct. 2019 - up to date	M	
	C/P (field activity)	Dr. Ziad Sha'rawi	Head of Division	Livestock/ Vet Service	Oct. 2019 - up to date	M	

Position at EVAP-2		Name	Position at MOA		Period as EVAP C/P	Gender	Remarks
	C/P (field activity)	Ms. Qamar Hawamdeh	Head of Division	Vegetables/Rural Development	Oct. 2019 - up to date	F	
	C/P (field activity)	Mr. Yousif Helees	Head of Division	Plant Production	Oct. 2019 - up to date	M	
	C/P (field activity)	Mr. Samir Dudeen	Head of Division	Plant Protection	Oct. 2019 - up to date	M	
	C/P (field activity)	Ms. May Arar	Head of Division	Horticulture/Olive	May 2021 - up to date	F	
Total Number		147			Male	101 (68.7%)	
					Female	46 (31.3%)	

Note: This list includes part-time officers as well as full-time officers

3. List of Government Officers engaged in Agricultural Extension in the West Bank in 2017 (for reference)

Office	Total No. of Staff	Male	Female	Male (%)	Female (%)	Average Age	Average Experienced Year
GDoERD	27	16	11	59%	41%	41.1	14.2
Jenin DOA	15	12	3	80%	20%	44.3	16.8
Tubas DOA	11	7	4	64%	36%	43.9	14.9
Tulkarm DOA	15	11	4	73%	27%	44.1	14.8
Nablus DOA	14	12	2	86%	14%	46.9	17.2
Qalqiliya DOA	8	7	1	88%	13%	38.9	9.9
Sulfit DOA	5	3	2	60%	40%	41.2	14.2
Ramallah DOA	9	7	2	78%	22%	45.2	13.7
Jericho DOA	8	7	1	88%	13%	41.6	14.9
Jerusalem DOA	7	6	1	86%	14%	36.3	9.0
Bethlehem DOA	10	8	2	80%	20%	38.9	8.7
North Hebron DOA	3	2	1	67%	33%	33.0	5.3
Hebron DOA	10	6	4	60%	40%	41.0	12.5
South Hebron DOA	8	6	2	75%	25%	36.3	9.4
Yatta DOA	7	7	0	100%	0%	39.4	9.4
Livestock Breed Improvement Center	7	5	2	71%	29%	43.7	15.0
Total	**164**	**122**	**42**	**74%**	**26%**	**41.8**	**13.4**

Source: Prepared based on personnel information of MOA

Attachment 6-3

List of Taskforce Committees and Technology Transfers (TOTs) in EVAP-2

1. Taskforce Committees

#	Date	Topic	Participants
1	2016/9/15	1st Taskforce Meeting to request forming Taskforce and explain the Monitoring Sheet.	GDoERD
2	2016/12/12	1st Extension Taskforce Meeting to discuss upgrading of the EVAP Extension Package.	GDoERD, Taskforce members
3	2017/2/19	2nd Extension Taskforce Meeting to improve understanding of the EVAP Extension Package.	GDoERD, Taskforce members
4	2017/2/19	2nd Monitoring Taskforce Meeting to confirm responsibilities of the Taskforce and progress of the Project to be reflected to the Monitoring Sheet.	GDoERD, Taskforce members
5	2017/3/20	3rd Extension Taskforce Meeting to discuss activities relating to marketing.	GDoERD, Taskforce members
6	2017/4/13	4th Extension Taskforce Meeting to share the results of "Market Analysis" Step, discuss contents/procedures of "Family Resource and Gender Analysis".	GDoERD, Taskforce members
7	2017/8/6	3rd Monitoring Taskforce Meeting to confirm progress of activities and achievements to be reflected to the Monitoring Sheet.	GDoERD, Taskforce members
8	2017/9/10	5th Extension Taskforce Meeting to confirm interests/needs of C/Ps on cases of sales promotion of agricultural products which could be destinations to visit at training in Japan and applicable for Palestine.	GDoERD, Taskforce members
9	2017/11/28	Technical Taskforce Meeting to discuss and approve the technique of "On-farm Soil Diagnosis by Extensionist (OSDEX)"	GDoERD, GD of Agricultural Water & Irrigation, Taskforce members
10	2018/2/13	4th Monitoring Taskforce Meeting.	GDoERD, Taskforce members
11	2018/2/25	6th Extension Taskforce Meeting to confirm modification of the EVAP EP.	GDoERD, Taskforce members
12	2018/7/4	Technical Taskforce Meeting to discuss "Negotiation Techniques for Agricultural Products".	GDoERD, Taskforce members
13	2018/7/10	7th Extension Taskforce Meeting and explanatory meeting on "Manual on Budget Request and Disbursement".	GDoERD, Taskforce members, GD of Finance & Administrative Affairs, 1st -3rd Cycle DOAs
14	2018/7/25	5th Monitoring Taskforce Meeting.	GDoERD, Taskforce members
15	2019/2/13	8th Extension Taskforce Meeting to discuss Step of "Profitability Assessment" for the 1st Cycle.	GDoERD, Taskforce members
16	2019/3/12	6th Monitoring Taskforce Meeting.	GDoERD, Taskforce members
17	2019/10/2	7th Monitoring Taskforce Meeting.	GDoERD, Taskforce members
18	2020/1/8	9th Extension Taskforce Meeting to discuss Step of "Profitability Assessment" for the 2nd Cycle.	GDoERD, Taskforce members
19	2021/3/22	8th Monitoring Taskforce Meeting.	GDoERD, Taskforce members

2. Technology Transfers (TOTs) to GDoERD

#	Date	Topic	Participants
1	2017/12/19	Explanation of detailed activities of the EVAP Extension Package and its necessary costs, and how to include this Package into the MOA Annual Extension Plan.	GDoERD, extensionists from all DOAs
2	2017/12/31	Explanation of detailed activities of the EVAP Extension Package and its necessary costs, and how to include this Package into the MOA Annual Extension Plan.	GDoERD, extensionists from all DOAs
3	2018/3/19	Workshop to explain necessary administrative procedure for implementing EVAP EP with MOA's own budget.	GDoERD, GD of Finance & Administrative Affairs, 1st and 2nd Cycle DOAs
4	2018/10/8	Workshop on identification of "good practice farmers" and preparation of their introduction sheets.	GDoERD, Mass Media Dep., 1st -3rd Cycle DOAs
5	2018/11/22	Session to share knowledge and experiences acquired from C/P training in Japan (Oct. 2018).	GDoERD, Heads of Extension Service Department and extensionists in charge of vegetable
6	2019/6/8	Explanatory meeting on "Petty Cash System" for implementing EVAP EP with MOA's own budget.	GDoERD, 1st -3rd Cycle DOAs
7	2019/8/27	Workshop on identification of "good practice farmers" and preparation of their introduction sheets.	GDoERD, Mass Media Dep., 4th Cycle DOAs
8	2021/3/15	Participation and presentation at "SHEP Approach International Online Workshop in Cairo" organized by JICA.	GDoERD, All DOAs in WB
9	2021/4/11	How to use "e-Guidelines of EVAP EP"	GDoERD, All DOAs in WB
10	2021/5/29	Online workshop on "Agricultural Extension and Disaster".	GDoERD, All DOAs in WB

3. Technology Transfers (TOTs) to the 1st Cycle DOAs (Jericho DOA, Nablus DOA and Tubas DOA)

#	Date	Target	Topic	Male	Female	Total
1	2017/1/12	Nablus DOA	Meeting to deepen understanding of EVAP Extension Package and to select target farmer groups	4	2	6
2	2017/1/17	Tubas DOA	Meeting to deepen understanding of EVAP Extension Package and to select target farmer groups	4	1	5
3	2017/1/19	Jericho DOA	Meeting to deepen understanding of EVAP Extension Package and to select target farmer groups	6	2	8
4	2017/2/8	Jericho DOA	Awareness Creation Tour	5	2	7
5	2017/2/9	Tubas DOA	Awareness Creation Tour	4	1	5
6	2017/2/12	Nablus DOA	Awareness Creation Tour	4	2	6
7	2017/3/5	Jericho DOA	Market Analysis	9	2	11
8	2017/3/5	Nablus DOA	Market Analysis	6	3	9
9	2017/3/6	Tubas DOA	Market Analysis	4	2	6
10	2017/4/10	Jericho DOA	Family Resource and Gender Analysis	9	1	10
11	2017/4/12	Nablus DOA Tubas DOA	Family Resource and Gender Analysis	5	6	11
12	2017/4/26	GDoERD for 3 DOAs	Action Planning and Baseline Assessment	13	6	19
13	2017/5/3	Nablus DOA Tubas DOA	Action Planning and Baseline Assessment	9	5	14
14	2017/5/4	Jericho DOA	Action Planning and Baseline Assessment	4	1	5
15	2017/5/21	Jericho DOA	Preparation of extension plan	6	1	7
16	2017/5/21	Nablus DOA	Preparation of extension plan	3	1	4
17	2017/5/24	Tubas DOA	Preparation of extension plan	3	1	4
18	2017/7/9	GDoERD	Farm record keeping and Group purchasing	6	2	8

#	Date	Target	Topic	Male	Female	Total
19	2017/7/10	Nablus DOA	Farm record keeping and Group purchasing	4	1	5
20	2017/7/12	Tubas DOA	Farm record keeping and Group purchasing	3	1	4
21	2017/7/13	Jericho DOA	Farm record keeping and Group purchasing	5	1	6
22	2019/2/17	Nablus DOA	Profitability Assessment	4	2	6
23	2019/2/19	Tubas DOA	Profitability Assessment	4	2	6
24	2019/2/21	Jericho DOA	Profitability Assessment	6	0	6
			Total Number of Participants	130	48	178
				73.0%	27.0%	100.0%

4. Technology Transfers (TOTs) to the 2nd Cycle DOAs (Jenin DOA, Tulkarm DOA and Qalkiliya DOA)

#	Date	Target	Topic	Male	Female	Total
1	2017/8/9	Qalqiliya DOA	Kickoff to explain EVAP Extension Package	4	2	6
2	2017/8/13	Jenin DOA	Kickoff to explain EVAP Extension Package	5	4	9
3	2017/8/14	Tulkarm DOA	Kickoff to explain EVAP Extension Package	6	2	8
4	2017/9/12	Qalqiliya DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	4	2	6
5	2017/9/13	Tulkarm DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	6	2	8
6	2017/9/14	Jenin DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	5	4	9
7	2017/10/2	Qalqiliya DOA	Gender Awareness and Consideration (Step 1-3) Awareness Creation Tour (Step-2)	4	2	6
8	2017/10/3	Tulkarem DOA	Gender Awareness and Consideration (Step 1-3) Awareness Creation Tour (Step-2)	4	3	7
9	2017/10/4	Jenin DOA	Gender Awareness and Consideration (Step 1-3) Awareness Creation Tour (Step-2)	5	3	8
10	2017/10/17	Khan Yunis DOA	Kickoff to explain EVAP Extension Package, Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2), Awareness Creation Tour (Step-2)	12	1	13
11	2017/12/5	Qalqiliya DOA	Market Opportunity Finding (Step-3)	7	2	9
12	2017/12/6	Tulkarem DOA	Market Opportunity Finding (Step-3)	4	4	8
13	2017/12/18	Jenin DOA	Market Opportunity Finding (Step-3)	7	3	10
14	2018/2/27	Qalqiliya DOA	Farming Improvement Planning & Training Needs Identification (Step-4)	5	2	7
15	2018/2/28	Tulkarem DOA	Farming Improvement Planning & Training Needs Identification (Step-4)	5	4	9
16	2018/3/1	Jenin DOA	Farming Improvement Planning & Training Needs Identification (Step-4)	6	3	9
17	2018/4/8	Qalqiliya DOA	Farm Record Keeping (Step-5)	6	2	8
18	2018/4/9	Tulkarem DOA	Farm Record Keeping (Step-5)	4	3	7
19	2018/4/10	Jenin DOA	Farm Record Keeping (Step-5)	6	2	8
20	2018/7/4	GDoERD	Negotiation Techniques for Agricultural Products (Step-6)	9	3	12
21	2018/7/5	Qalqiliya DOA	Negotiation Techniques for Agricultural Products (Step-6)	5	2	7
22	2018/7/8	Jenin DOA	Negotiation Techniques for Agricultural Products (Step-6)	3	2	5
23	2018/7/9	Tulkarem DOA	Negotiation Techniques for Agricultural Products (Step-6)	5	4	9

#	Date	Target	Topic	Male	Female	Total
24	2018/7/17	Qalqiliya DOA	Livestock disease diagnosis (Step-6)	3	0	3
25	2020/1/12	Jenin DOA	Profitability Assessment (Step-7)	6	4	10
26	2020/1/13	Tulkarem DOA	Profitability Assessment (Step-7)	6	3	9
27	2020/1/14	Qalqiliya DOA	Profitability Assessment (Step-7)	4	1	5
			Total Number of Participants	146	69	215
				67.9%	32.1%	100.0%

5. Technology Transfers (TOTs) to the 3rd Cycle DOAs (Salfit DOA, Ramallah DOA and Jerusalem DOA)

#	Date	Target	Topic	Male	Female	Total
1	2018/9/4	Salfit DOA	Kickoff to explain EVAP Extension Package	5	6	11
2	2018/9/4	Ramallah DOA	Kickoff to explain EVAP Extension Package	9	5	14
3	2018/9/6	Jerusalem DOA	Kickoff to explain EVAP Extension Package	1	7	8
4	2018/10/3	Salfit DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	5	5	10
5	2018/10/4	Jerusalem DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	6	2	8
6	2018/10/7	Ramallah DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	4	4	8
7	2018/11/7	3 DOAs	Gender Awareness and Consideration (Step 1-3)	5	7	12
8	2018/11/13	Ramallah DOA	Awareness Creation Tour (Step-2)	2	3	5
9	2018/11/14	Salfit DOA	Awareness Creation Tour (Step-2)	2	4	6
10	2018/11/18	Jerusalem DOA	Awareness Creation Tour (Step-2)	5	1	6
11	2019/1/8	Ramallah DOA	Market Opportunity Finding (Step-3)	1	3	4
12	2019/1/9	Jerusalem DOA	Market Opportunity Finding (Step-3)	4	1	5
13	2019/1/10	Salfit DOA	Market Opportunity Finding (Step-3)	4	5	9
14	2019/3/20	Jerusalem DOA	Farming Improvement Planning & Training Needs Identification (Step-4)	5	1	6
15	2019/3/21	Ramallah DOA	Farming Improvement Planning & Training Needs Identification (Step-4)	2	3	5
16	2019/3/22	Salfit DOA	Farming Improvement Planning & Training Needs Identification (Step-4)	2	5	7
17	2019/4/22	Salfit DOA	Farm Record Keeping (Step-5)	1	5	6
18	2019/4/23	Ramallah DOA	Farm Record Keeping (Step-5)	4	3	7
19	2019/4/24	Jerusalem DOA	Farm Record Keeping (Step-5)	3	2	5
20	2019/2/14	Ramallah DOA Jerusalem DOA	Animal Health and Diseases (Step-6)	1	1	2
21	2019/2/17	Ramallah DOA Jerusalem DOA	Animal Feeding (Step-6)	1	1	2
22	2021/3/23	Ramallah DOA Jerusalem DOA	Profitability Assessment (Step-7)	6	4	10
23	2021/3/24	Salfit DOA	Profitability Assessment (Step-7)	2	7	9
24	2021/4/26	Jerusalem DOA	Dibis quality management (Step-6)	4	2	6
			Total Number of Participants	84	87	171
				49.1%	50.8%	100.0%

6. Technology Transfers (TOTs) to the 4th Cycle DOAs (Bethlehem DOA, North Hebron DOA, Hebron DOA, South Hebron DOA and Yatta DOA)

#	Date	Target	Topic	Male	Female	Total
1	2019/9/23	Hebron DOA	Kickoff to explain EVAP Extension Package	2	4	6
2	2019/9/26	South Hebron DOA	Kickoff to explain EVAP Extension Package	4	2	6
3	2019/9/29	Bethlehem DOA	Kickoff to explain EVAP Extension Package	7	3	10
4	2019/9/30	North Hebron DOA	Kickoff to explain EVAP Extension Package	5	2	7
5	2019/10/1	Yatta DOA	Kickoff to explain EVAP Extension Package	6	0	6
6	2019/10/3	South Hebron DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	2	3	5
7	2019/10/3	Hebron DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	6	3	9
8	2019/10/6	Bethlehem DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	6	4	10
9	2019/10/7	North Hebron DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	4	3	7
10	2019/10/8	Yatta DOA	Selection of target farmer groups (Step 1-1) & Willingness and Readiness Confirmation Workshop (Step 1-2)	8	1	9
11	2019/10/21	5 DOAs	Gender Awareness and Consideration (Step 1-3)	11	17	28
12	2019/11/12	5 DOAs	Awareness Creation Tour (Step-2)	18	9	27
13	2020/1/26	5 DOAs	Market Opportunity Finding (Step-3)	16	10	26
14	2020/6/2	5 DOAs	Farming Improvement Planning & Training Needs Identification (Step-4)	14	9	23
15	2020/9/6	Yatta DOA	Farm Record Keeping (Step-5)	4	0	4
16	2020/9/7	North Hebron DOA	Farm Record Keeping (Step-5)	2	2	4
17	2020/9/8	Hebron DOA	Farm Record Keeping (Step-5)	2	5	7
18	2020/9/10	South Hebron DOA	Farm Record Keeping (Step-5)	8	5	13
19	2020/9/20	Bethlehem DOA	Farm Record Keeping (Step-5)	6	3	9
20	2020/9/20	Bethlehem DOA	How to use "Online Monitoring Sheet"	6	3	9
21	2020/9/24	North Hebron DOA	How to use "Online Monitoring Sheet"	5	2	7
22	2020/9/28	Yatta DOA	How to use "Online Monitoring Sheet"	7	0	7
23	2020/10/1	Hebron DOA	How to use "Online Monitoring Sheet"	5	7	12
24	2020/10/7	South Hebron DOA	How to use "Online Monitoring Sheet"	4	4	8
25	2020/10/20	North Hebron DOA	Compost making and application technique (Step-6)	4	2	6
26	2020/11/18	South Hebron DOA	Compost making and application technique (Step-6)	3	3	6
27	2021/2/15	South Hebron DOA	Grafted seedling (Step-6)	3	5	8
28	2021/2/10	North Hebron DOA	Dibis quality management (Step-6)	2	3	5
29	2021/2/23	Bethlehem DOA	Dibis quality management (Step-6)	8	3	11
30	2021/4/22	Hebron DOA	Dibis quality management (Step-6)	8	6	14
31	2021/5/30	GDoERD for 5DOAs GD of Irrigation	Optimal use of irrigation water	1	1	2
32	2021/6/1	5 DOAs	Optimal use of irrigation water	20	10	30
33	2021/6/22	Yatta DOA	A.I. Treatment	2	0	2
34	2021/6/29	Bethlehem DOA	A.I. Treatment	3	0	3
			Total Number of Participants	212	134	346
				61.3%	38.7%	100.0%

7. Meetings with DOAs for Extension Activities based on the EVAP Extension Package with own Budget of Palestinian Authority (2nd round activity)

#	Date	Topic	Participants
1	2018/6/24	Meetings to monitor implementing EVAP EP with own budget.	1st Cycle DOAs
2	2018/6/26	Meetings to monitor implementing EVAP EP with own budget.	1st Cycle DOAs
3	2018/6/28	Meeting to monitor implementing EVAP EP with own budget.	Qalqiliya DOA

8. Technology Transfer for Livestock Artificial Insemination (TOT)

#	Date	Topic	Participants
1	2017/9/14	Technical guidance on freeze of semen.	AI Center at Beit Qad Experiment Station (Jenin)
2	2017/9/19	Technical guidance on freeze of semen.	AI Center at Beit Qad Experiment Station (Jenin)
3	2017/9/20	Technical guidance on freeze of semen.	AI Center at Beit Qad Experiment Station (Jenin)
4	2017/9/25	Technical guidance on freeze of semen.	AI Center at Beit Qad Experiment Station (Jenin)
5	2017/9/28	Technical guidance on freeze of semen.	AI Center at Beit Qad Experiment Station (Jenin)

9. Number of Government Officers engaged in Agricultural Extension in the West Bank in 2017 (for reference)

Office	Total No. of Staff	Male	Female	Male (%)	Female (%)	Average Age	Average Experienced Year
GDoERD	27	16	11	59%	41%	41.1	14.2
Jenin DOA	15	12	3	80%	20%	44.3	16.8
Tubas DOA	11	7	4	64%	36%	43.9	14.9
Tulkarm DOA	15	11	4	73%	27%	44.1	14.8
Nablus DOA	14	12	2	86%	14%	46.9	17.2
Qalqiliya DOA	8	7	1	88%	13%	38.9	9.9
Salfit DOA	5	3	2	60%	40%	41.2	14.2
Ramallah DOA	9	7	2	78%	22%	45.2	13.7
Jericho DOA	8	7	1	88%	13%	41.6	14.9
Jerusalem DOA	7	6	1	86%	14%	36.3	9.0
Bethlehem DOA	10	8	2	80%	20%	38.9	8.7
North Hebron DOA	3	2	1	67%	33%	33.0	5.3
Hebron DOA	10	6	4	60%	40%	41.0	12.5
South Hebron DOA	8	6	2	75%	25%	36.3	9.4
Yatta DOA	7	7	0	100%	0%	39.4	9.4
Livestock Breed Improvement Center	7	5	2	71%	29%	43.7	15.0
Total	**164**	**122**	**42**	**74%**	**26%**	**41.8**	**13.4**

Source: Aggregated based on personnel information of MOA

Attachment 6-4

Results of Extension Activities for Farmer Groups in EVAP-2

1. 1st Cycle DOAs (Jericho DOA, Nablus DOA and Tubas DOA)

(1) Results of Extension Activities for Farmer Groups

Extension Steps	1-1. Mothers' School Association in Al Badhan (Nablus)				1-2. Frosh Beit Dajan Cooperative Association (Nablus)				1-3. Aqqaba Women Extension Sub-Group (Tubas)				1-4. Bardala Women Extension Group (Tubas)				1-5. Al Mussafah Extension Sub-Group (Jericho)				1-6. Jiftlik Farmer Extension Group (Jericho)				**Total**		
	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	**Male**	**Female**	**Total**
Step 2: Planning workshop	2017/2/15	0	14	14	2017/2/15	13	0	13	2017/2/13	2	4	6	2017/2/16	0	8	8	2017/2/14	6	0	6	2017/2/16	13	0	13	**34**	**26**	**60**
Step 2: Tour	2017/2/27	0	22	22	2017/3/1	19	0	19	2017/2/23	2	12	14	2017/3/2	0	17	17	2017/2/22	14	0	14	2017/3/9	16	0	16	**51**	**51**	**102**
Step 3: Planning workshop	2017/3/15	0	21	21	2017/3/14	14	0	14	2017/3/13	0	13	13	2017/3/16	0	16	16	2017/3/15	17	0	17	2017/3/23	16	0	16	**47**	**50**	**97**
Step 3: Market visits	2017/3/29	0	18	18	2017/3/20	17	0	17	2017/3/27	1	7	8	2017/4/3	1	14	15	2017/3/28	7	0	7	2017/3/30	23	0	23	**49**	**39**	**88**
Step 4: Family Resource and Gender Analysis	2017/5/2	0	16	16	2017/4/26	14	0	14	2017/4/18	6	7	13	2017/4/19	0	12	12	2017/4/23	9	0	9	2017/4/20	12	0	12	**41**	**35**	**76**
Step 5: Action Planning	2017/5/14	0	18	18	2017/5/16	17	0	17	2017/5/23	1	11	12	2017/5/10	0	14	14	2017/5/15	10	0	10	2017/5/11	9	0	9	**37**	**43**	**80**
Farm Record Keeping	2017/7/17	0	15	15	2017/7/17	4	0	4	2017/7/18	0	6	6	2017/7/18	0	7	7	2017/7/20	10	0	10	2017/7/20	10	0	10	**24**	**28**	**52**
Business Matching & Tour	2017/7/31	0	15	15	2017/8/16	10	0	10	2017/8/15	1	4	5	2017/8/7	3	24	27	-	-	-	0	2017/8/16	8	0	8	**22**	**43**	**65**
Step 6: Technical Trainings-1	2017/10/1	0	17	17	2017/9/24	15	0	15	2017/10/5	2	10	12	2017/9/26	0	11	11	2017/9/18	15	0	15	2017/9/28	11	0	11	**43**	**38**	**81**
Step 6: Technical Trainings-2	2017/10/26	0	21	21	2017/10/8	12	0	12	-	-	-	0	2017/10/22	0	12	12	2017/10/12	16	0	16	2018/1/31	13	0	13	**41**	**33**	**74**
Step 6: Technical Trainings-3	-	-	-	0	2018/1/17	10	0	10	-	-	-	0	2017/10/30	2	17	19	2017/12/26	13	0	13	-	-	-	0	**25**	**17**	**42**
Step 6: Technical Trainings-4	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	2018/1/2	20	0	20	-	-	-	0	**20**	**0**	**20**
Step 6: Technical Trainings-5	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	2018/1/18	19	0	19	-	-	-	0	**19**	**0**	**19**
Step 6: Technical Trainings-6	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	2018/1/25	0	9	9	-	-	-	0	**0**	**9**	**9**
Step 7: Profitability Assessment	-	0	15	15	-	8	0	8	-	1	8	9	-	0	11	11	-	6	0	6	-	10	0	10	**25**	**34**	**59**
Total Number of Participants	-	0	192	192	-	153	0	153	-	16	82	98	-	6	163	169	-	162	9	171	-	141	0	141	**478**	**446**	**924**
																									51.7%	48.3%	100.0%
Total Beneficiaries	-	0	41	41	-	51	0	51	-	8	35	43	-	4	35	39	-	51	7	58	-	51	0	51	**165**	**118**	**283**
																									58.3%	41.7%	100.0%
Number of Sessions	11				12				10				12				15				11				**71**		

(2) Contents of Technical Trainings based on the Plan formulated by the Farmer Groups

Details of Technical Trainings planned by the Farmer Groups	1-1. Mothers' School Association in Al Badhan (Nablus)	1-2. Frosh Beit Dajan Cooperative Association (Nablus)	1-3. Aqqaba Women Extension Sub-Group (Tubas)	1-4. Bardala Women Extension Group (Tubas)	1-5. Al Mussafah Extension Sub-Group (Jericho)	1-6. Jiftlik Farmer Extension Group (Jericho)
Step 6: Technical Trainings-1	Disease/insect control of cucumber, use/maintenance of sprayer	Cultivation techniques of hanged pea	Cultivation techniques of gundelia, compost making & application	Disease and insect control of cucumber	Disease control, breeding of sheep/goats	Cultivation techniques of spring cucumber
Step 6: Technical Trainings-2	Pruning technique of lemon	Soil & irrigation management technique, compost making & application	-	Cultivation techniques of thyme, grafted seedlings of cucumber	Group procurement of agricultural materials	Business matching with traders from Bethlehem
Step 6: Technical Trainings-3	-	Marketing and branding including direct selling	-	Paprika production for processing, needs of processing company	Cooperative registration procedure (1)	-
Step 6: Technical Trainings-4	-	-	-	-	Cooperative registration procedure (2)	-
Step 6: Technical Trainings-5	-	-	-	-	Actual cooperative registration	-
Step 6: Technical Trainings-6	-	-	-	-	Cheese making technique	-

2. 2nd Cycle DOAs (Jenin DOA, Tulkarm DOA and Qalkiliya DOA)

(1) Results of Extension Activities for Farmer Groups

Extension Steps	2-1. Al-Izab Farmer Extension Group (Qalqiliya)				2-2. Qalqiliya Livestock Extension Group (Qalqiliya)				2-3. Baqa Al Sharqeiah Farmer Group (Tulkarm)				2-4. Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarm)				2-5. Maithalon and Sanor Farmer Extension Group (Jenin)				2-6. Qabatiya Farmer Extension Group (Jenin)				**Total**		
	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	**Male**	**Female**	**Total**
Step 1: Willingness & Readiness Confirmation	2017/9/25	10	0	10	2017/9/25	13	0	13	2017/9/26	10	0	10	2017/9/26	0	13	13	2017/9/27	14	5	19	2017/9/27	15	0	15	**62**	**18**	**80**
Step 2: Planning workshop	2017/11/7	13	0	13	2017/11/6	9	0	9	2017/11/9	15	0	15	2017/11/13	0	9	9	2017/11/8	7	3	10	2017/11/12	22	0	22	**66**	**12**	**78**
Step 2: Tour	2017/11/16	14	0	14	2017/11/14	19	0	19	2017/11/23	15	0	15	2017/11/29	0	18	18	2017/11/22	16	17	33	2017/11/27	32	0	32	**96**	**35**	**131**
Step 3: Planning workshop	2017/12/28	15	0	15	2017/12/27	14	0	14	2018/1/4	14	0	14	2018/1/3	0	13	13	2018/1/8	9	12	21	2018/1/9	19	0	19	**71**	**25**	**96**
Step 3: Market visits	2018/2/1	16	0	16	2018/1/29	17	0	17	2018/2/6	17	0	17	2018/2/8	0	14	14	2018/2/12	16	16	32	2018/2/14	39	0	39	**105**	**30**	**135**
Step 4: Farming Improvement Planning	2018/3/13	12	0	12	2018/3/6	15	0	15	2018/3/12	13	0	13	2018/3/12	0	14	14	2018/3/14	11	13	24	2018/3/11	23	0	23	**74**	**27**	**101**
Step 5: Farm Record Keeping	2018/4/16	16	0	16	2018/4/15	12	0	12	2018/4/17	13	1	14	2018/4/18	0	16	16	2018/4/19	9	9	18	2018/4/22	9	0	9	**59**	**26**	**85**
Step 6: Technical Trainings-1	2018/8/16	9	1	10	2018/7/4	14	0	14	-	-	-	-	2018/9/12	0	10	10	2018/9/13	6	7	13	2018/8/30	15	0	15	**44**	**18**	**62**
Step 6: Technical Trainings-2	2018/11/5	9	0	9	2018/7/24	22	0	22	-	-	-	-	2018/12/10	0	13	13	2018/10/24	11	12	23	2018/9/27	18	0	18	**60**	**25**	**85**
Step 6: Technical Trainings-3	2018/11/12	9	1	10	2018/8/8	17	0	17	-	-	-	-	2018/8/13	0	15	15	2019/2/7	6	16	22	2018/11/4	10	0	10	**42**	**32**	**74**
Step 6: Technical Trainings-4	2018/3/28	8	0	8	2018/7/11	15	0	15	-	-	-	-	2018/4/2	0	7	7	2018/8/1	10	8	18	2018/7/16	10	0	10	**43**	**15**	**58**
Step 6: Technical Trainings-5	-	-	-	0	2018/12/16	13	0	13	-	-	-	-	2019/3/14	0	12	12	2018/4/3	1	6	7	2019/2/12	10	0	10	**24**	**18**	**42**
Step 6: Technical Trainings-6	-	-	-	0	2018/10/2	17	0	17	-	-	-	-	2019/8/6	0	16	16	2019/7/29	5	9	14	2018/4/23	8	0	8	**30**	**25**	**55**
Step 6: Technical Trainings-7	-	-	-	0	2018/4/24	12	0	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**12**	**0**	**12**
Step 6: Technical Trainings-8	-	-	-	-	2019/5/2	11	0	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**11**	**0**	**11**
Step 7: Profitability Assessment	2020/1/20	15	0	15	2020/1/21	12	0	12	-	0	0	0	2020/1/19	0	12	12	2020/1/16	6	7	13	2020/1/22	7	0	7	**40**	**19**	**59**
Total Number of Participants	-	146	2	148	-	232	0	232	-	97	1	98	-	0	182	182	-	127	140	267	-	237	0	237	**839**	**325**	**1,164**
																									72.1%	27.9%	100.0%
Total Beneficiaries	-	54	1	55	-	71	0	71	-	46	1	47	-	0	33	33	-	46	50	96	-	89	0	89	**306**	**85**	**391**
																									78.3%	21.7%	100.0%
Number of Sessions	12				16				7				14				14				14				**77**		

(2) Contents of Technical Trainings based on the Plan formulated by the Farmer Groups

Details of Technical Trainings planned by the Farmer Groups	2-1. Al-Izab Farmer Extension Group (Qalqiliya)	2-2. Qalqiliya Livestock Extension Group (Qalqiliya)	2-3. Baqa Al Sharqeiah Farmer Group (Tulkarm)	2-4. Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarm)	2-5. Maithalon and Sanor Farmer Extension Group (Jenin)	2-6. Qabatiya Farmer Extension Group (Jenin)
Step 6: Technical Trainings-1	Hanged peas cultivation	Cooperative registration procedure	-	Gundelia production	Gundelia cultivation	Sales promotion of tomato & cucumber
Step 6: Technical Trainings-2	Greenhouse management	Animal disease & treatment	-	Bee keeping	Wheat cultivation for Freekeh production	Study tour & matching for tomato & cucumber
Step 6: Technical Trainings-3	Protected watermelon in green house	Animal health & feeding management	-	Negotiation techniques	Cultivation of rainfed grafted watermelon	Greenhouse management
Step 6: Technical Trainings-4	Study tour organized by DOA	Negotiation techniques	-	Study tour organized by DOA	Negotiation techniques	Negotiation techniques
Step 6: Technical Trainings-5	-	Tour for farm management & mortality rate improvement	-	Queen raising	Study tour organized by DOA	Study tour organized by DOA
Step 6: Technical Trainings-6	-	Study tour & matching for Alfalfa & sheep	-	Luisa production	Follow-up workshop on grafted watermelon cultivation	-
Step 6: Technical Trainings-7	-	Study tour organized by DOA	-	-	-	-
Step 6: Technical Trainings-8	-	Artificial Insemination	-	-	-	-

3. 3rd Cycle DOAs (Salfit DOA, Ramallah DOA and Jerusalem DOA)

(1) Results of Extension Activities for Farmer Groups

Extension Steps	3-1. Dier Ballout Women Extension Group (Salfit)				3-2. Salfit Olive Farmer Extension Group Group (Salfit)				3-3. Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)				3-4. Al Moghuyer Livestock Farmer Extension Group (Ramallah)				3-5. Beit Doqo Grape Farmer Extension Group (Jerusalem)				3-6. Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem)				**Total**		
	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	**Male**	**Female**	**Total**
Step 1: Willingness & Readiness Confirmation	2018/10/22	1	18	19	2018/11/6	13	3	16	2018/10/30	16	0	16	2018/10/29	17	0	17	2018/10/16	15	0	15	2018/10/23	16	1	17	**78**	**22**	**100**
Step 2: Planning workshop	2018/11/21	0	20	20	2018/11/19	13	5	18	2018/11/26	8	0	8	2018/12/3	22	0	22	2018/11/27	11	0	11	2018/11/28	9	3	12	**63**	**28**	**91**
Step 2: Tour	2018/12/6	0	13	13	2018/12/5	24	8	32	2018/12/1	15	5	20	2018/12/13	15	0	15	2018/12/12	18	0	18	2018/12/9	19	6	25	**91**	**32**	**123**
Step 3: Planning workshop	2019/1/17	0	17	17	2019/1/14	11	7	18	2019/1/21	15	4	19	2019/1/16	23	0	23	2019/1/20	11	0	11	2019/1/22	9	1	10	**69**	**29**	**98**
Step 3: Market visits	2019/1/24	4	35	39	2019/2/3	20	7	27	2019/1/31	22	7	29	2019/1/27	12	0	12	2019/1/28	12	0	12	2019/2/29	17	3	20	**87**	**52**	**139**
Step 4: Farming Improvement Planning	2019/3/27	0	13	13	2019/4/14	8	6	14	2019/4/1	14	2	16	2019/3/27	11	0	11	2019/3/26	7	0	7	2019/4/10	10	1	11	**50**	**22**	**72**
Step 5: Farm Record Keeping	2019/5/8	0	14	14	2019/4/25	9	5	14	2019/4/30	6	1	7	2019/4/29	12	0	12	2019/5/2	6	0	6	2019/5/5	10	1	11	**43**	**21**	**64**
Step 6: Technical Trainings-1	2019/7/10	0	11	11	2019/6/19	14	11	25	2019/7/3	14	1	15	2019/2/20	16	0	16	2018/12/23	14	0	14	2019/2/17	10	1	11	**68**	**24**	**92**
Step 6: Technical Trainings-2	2019/8/1	1	11	12	2019/8/5	13	6	19	2019/7/14	14	3	17	2019/2/25	17	0	17	2019/1/23	6	0	6	2019/2/25	10	1	11	**61**	**21**	**82**
Step 6: Technical Trainings-3	2019/8/8	0	11	11	2019/9/25	13	5	18	2019/8/7	3	0	3	2019/7/11	16	0	16	2019/7/8	9	0	9	2019/7/15	12	0	12	**53**	**16**	**69**
Step 6: Technical Trainings-4	-	-	-	-	2019/10/2	11	0	11	2019/8/20	12	1	13	2019/8/4	16	0	16	2019/7/1	4	0	4	2019/8/6	14	3	17	**57**	**4**	**61**
Step 6: Technical Trainings-5	-	-	-	-	-	-	-	-	2019/9/3	7	0	7	2019/5/22	9	0	9	2019/9/22	15	0	15	2019/5/23	7	0	7	**38**	**0**	**38**
Step 7: Profitability Assessment	2021/4/1	0	9	9	2021/3/29	7	2	9	2021/4/6	6	1	7	2021/4/5	7	0	7	2021/4/4	8	0	8	2021/4/8	8	1	9	**36**	**13**	**49**
Total Number of Participants	-	6	172	178	-	156	65	221	-	152	25	177	-	193	0	193	-	136	0	136	-	151	22	173	**794**	**284**	**1,078**
																									73.7%	26.3%	100.0%
Total Beneficiaries	-	6	56	62	-	33	17	50	-	48	8	56	-	74	0	74	-	48	0	48	-	58	10	68	**267**	**91**	**358**
																									74.6%	25.4%	100.0%
Number of Sessions	11				12				13				13				13				13				**75**		

(2) Contents of Technical Trainings based on the Plan formulated by the Farmer Groups

Details of Technical Trainings planned by the Farmer Groups	3-1. Dier Ballout Women Extension Group (Salfit)	3-2. Salfit Olive Farmer Extension Group Group (Salfit)	3-3. Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	3-4. Al Moghuyer Livestock Farmer Extension Group (Ramallah)	3-5. Beit Doqo Grape Farmer Extension Group (Jerusalem)	3-6. Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem)
Step 6: Technical Trainings-1	Compost making	Cooperative registration procedure	Supplemental irrigation	Animal health and disease	Downy Mildew disease	Animal health and disease
Step 6: Technical Trainings-2	Practical training on compost application	Study tour for supplemental irrigation	Study tour for supplemental irrigation	Feeding management	Grape pruning	Feeding management
Step 6: Technical Trainings-3	Group procurement	Group selling	Study tour for farm inputs	Farm management	Marketing and branding	Farm management
Step 6: Technical Trainings-4	-	Business matching	Compost application	Study tour to Bait Qad Station	Green pruning	Study tour to Bait Qad Station
Step 6: Technical Trainings-5	-	-	Group procurement	Artificial Insemination	Study tour to Hebron grape markets	Artificial Insemination

4. 4th Cycle DOAs (Bethlehem DOA, North Hebron DOA, Hebron DOA, South Hebron DOA and Yatta DOA)

(1) Results of Extension Activities for Farmer Groups

Extension Steps	4-1. Al Khader Grape Farmer Extension Group (Bethlehem)				4-2. Janata Livestock Farmer Extension Group (Bethlehem)				4-3. Sa'eer Farmer Extension Group (Hebron)				4-4. Agriculture Knowledge Leading Group in Halhoul (North Hebron)				4-5. Yatta Agriculture Innovative Farmer Extension Group (Yatta)				4-6. Al Hejri Farmer Extension Group (South Hebron)				**Total**		
	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	Date	Male	Female	Total	**Male**	**Female**	**Total**
Step 1: Willingness & Readiness Confirmation	2019/10/14	14	5	19	2019/10/15	23	9	32	2019/10/20	13	2	15	2019/10/16	22	7	29	2019/10/23	21	0	21	2019/10/13	17	12	29	110	35	145
Step 2: Planning workshop	2019/11/13	9	5	14	2019/11/17	20	8	28	2019/11/19	7	3	10	2019/11/18	12	11	23	2019/11/20	20	0	20	2019/11/14	13	10	23	81	37	118
Step 2: Tour	2019/12/17	13	5	18	2019/12/1	18	7	25	2019/12/5	9	6	15	2019/12/3	16	16	32	2019/12/8	23	0	23	2019/12/12	15	12	27	94	46	140
Step 3: Planning workshop	2020/2/9	11	2	13	2020/2/5	19	4	23	2020/2/4	17	6	23	2020/2/10	15	10	25	2020/2/6	15	0	15	2020/2/24	16	6	22	93	28	121
Step 3: Market visits	2020/2/25	11	5	16	2020/2/27	24	0	24	2020/2/18	7	10	17	2020/2/16	10	11	21	2020/2/23	22	0	22	2020/2/26	13	1	14	87	27	114
Step 4: Farming Improvement Planning	2020/6/16	14	5	19	2020/6/8	9	0	9	2020/6/10	8	5	13	2020/8/31	8	12	20	2020/6/4	15	0	15	2020/9/15	17	7	24	71	29	100
Step 5: Farm Record Keeping	2020/9/22	10	3	13	2020/9/21	16	3	19	2020/9/16	4	5	9	2020/9/15	9	11	20	2020/9/9	10	0	10	2020/9/17	12	11	23	61	33	94
Step 6: Technical Trainings-1	2020/10/19	9	4	13	2020/10/13	13	6	19	2020/12/7	6	3	9	2020/9/7	5	0	5	2020/10/11	6	0	6	2021/1/19	10	3	13	49	16	65
Step 6: Technical Trainings-2	2020/11/3	2	2	4	2020/11/17	21	4	25	2021/2/8	8	4	12	2020/9/27	9	14	23	2020/11/11	12	0	12	2021/2/25	14	6	20	66	30	96
Step 6: Technical Trainings-3	2021/2/24	9	5	14	2021/2/3	10	2	12	2021/2/21	12	5	17	2020/10/12	9	27	36	2020/12/9	21	0	21	2020/11/23	8	4	12	69	43	112
Step 6: Technical Trainings-4	2021/1/20	10	3	13	2020/12/2	16	4	20	2021/6/9	4	1	5	2020/11/2	5	6	11	2021/1/31	15	0	15	2021/6/14	3	0	3	53	14	67
Step 6: Technical Trainings-5	2021/5/26	10	5	15	2021/1/27	0	16	16	2021/9/8	5	5	10	2020/11/16	4	11	15	2021/1/25	0	15	15	2021/7/15	10	4	14	29	56	85
Step 6: Technical Trainings-6	2021/6/7	8	5	13	2020/10/28	10	4	14				0	2021/2/22	8	21	29				0					26	30	56
Step 6: Technical Trainings-7	2021/6/15	9	6	15									2021/4/28	6	11	17									15	17	32
Step 6: Technical Trainings-8	2021/6/23	9	5	14									2021/6/3	4	11	15									13	16	29
Step 6: Technical Trainings-9	2021/6/28	5	3	8									2021/6/30	6	9	15									11	12	23
Step 6: Technical Trainings-10													2021/7/28	3	7	10									3	7	10
Step 6: Technical Trainings-11													2021/8/17	2	3	5									2	3	5
Step 6: Technical Trainings-12													2021/8/22	4	9	13									4	9	13
Step 7: Profitability Assessment	2021/12/22	12	4	16	2021/12/28	14	11	25	2021/12/23	7	3	10	2021/12/27	1	19	20	2021/12/30	7	1	8	2021/12/21	13	0	13	54	38	92
Total Number of Participants		165	72	237		213	78	291		107	58	165		158	226	384		193	15	208		155	77	232	**991**	**526**	**1,517**
																									65.33%	34.67%	100.0%
Total Beneficiaries		32	10	42		73	21	94		57	18	75		33	44	77		43	15	58		54	23	77	**292**	**131**	**423**
																									69.03%	30.97%	100.0%
Number of Sessions		17				14				13				20				13				13				**90**	

(2) Contents of Technical Trainings based on the Plan formulated by the Farmer Groups

Details of Technical Trainings planned by the Farmer Groups	4-1. Al Khader Grape Farmer Extension Group (Bethlehem)	4-2. Janata Livestock Farmer Extension Group (Bethlehem)	4-3. Sa'eer Farmer Extension Group (Hebron)	4-4. Agriculture Knowledge Leading Group in Halhoul (North Hebron)	4-5. Yatta Agriculture Innovative Farmer Extension Group (Yatta)	4-6. Al Hejri Farmer Extension Group (South Hebron)
Step 6: Technical Trainings-1	Quality management (Dibs standards)	Additional study tour	Pest and diseases management	Meeting on group selling of grape	A.I./sponge application/hormone treatment (breed improvement)	Pest and diseases management & methods of mixing-up pesticides
Step 6: Technical Trainings-2	Field demo on Mollasses production	Feeding management	Fertilization program	Additional awareness creation tour	Feeding management	Grafting techniques
Step 6: Technical Trainings-3	Effect of thermal treatment on Dibs quality	Sheep farm management	Grafted seedlings	Quality management	Animal health & disease	Compost making
Step 6: Technical Trainings-4	Pest and diseases management	Animal health & disease	Optimal use of irrigation water	Field demo on Mollasses production	Sheep farm management & taking care of newborn sheep	Optimal use of irrigation water
Step 6: Technical Trainings-5	Grape pest control & mixing pesticides	Improving quality of milk and dairy products	Additional Study Tour (Mixing pesticides & other issues)	Compost making and application	Improving quality of milk and dairy product	Fertilization Programme
Step 6: Technical Trainings-6	Short-term cultivation practices to improve grape quality (1)	A.I./sponge application/hormone treatment (breed improvement)	-	Effect of thermal treatment on Dibs quality	-	-
Step 6: Technical Trainings-7	Short-term cultivation practices to improve grape quality (2)	-	-	Pest & disease management & methods of mixing-up pesticides	-	-
Step 6: Technical Trainings-8	Additional awareness creation tour to Hebron	-	-	Short-term cultivation practcies to improve grape quality	-	-
Step 6: Technical Trainings-9	Optimal use of irrigation water	-	-	Optimal use of irrigation water	-	-
Step 6: Technical Trainings-10	-	-	-	Group Procurement and Selling	-	-
Step 6: Technical Trainings-11	-	-	-	Awareness creation Tour Cardboard Factory in Nablus	-	-
Step 6: Technical Trainings-12	-	-	-	Matching Session with Cardboard factory in Hebron	-	-

5. Grand Summary of Results of Extension Activities for Farmer Groups

Cycle	ID	Name of Farmer Groups	Directorates of Agriculture (DOA)	Main Products	Type of Farmer Groups			Total Number of Participants (Person-Session)			Total Beneficiaries			Number of Sessions	Average Participants per Session
					Mixed Group	Male Group	Female Group	Male	Female	Total	Male	Female	Total		
1st	(1-1)	Mothers' School Association in Al Badhan	Nablus	Vegetable			✓	0	192	192	0	41	41	11	17.5
	(1-2)	Frosh Beit Dajan Cooperative Association	Nablus	Vegetable		✓		153	0	153	51	0	51	12	12.8
	(1-3)	Aqqaba Women Extension Sub-Group	Tubas	Vegetable, Herb, Almond	✓			16	82	98	8	35	43	10	9.8
	(1-4)	Bardala Women Extension Group	Tubas	Vegetable			✓	6	163	169	4	35	39	12	14.1
	(1-5)	Al Mussafah Extension Sub-Group	Jericho	Livestock	✓			162	9	171	51	7	58	15	11.4
	(1-6)	Jiftlik Farmer Extension Group	Jericho	Vegetable		✓		141	0	141	51	0	51	11	12.8
				Sub-total	2	2	2	478	446	924	165	118	283	71	13.0
					33.3%	33.3%	33.3%	51.7%	48.3%	100.0%	58.3%	41.7%	100.0%	-	-
2nd	(2-1)	Al-Izab Farmer Extension Group	Qalqiliya	Vegetable		✓		146	2	148	54	1	55	12	12.3
	(2-2)	Qalqiliya Livestock Extension Group	Qalqiliya	Livestock		✓		232	0	232	71	0	71	16	14.5
	(2-3)	Baqa Al Sharqeiah Farmer Group	Tulkarm	Vegetable		✓		97	1	98	46	1	47	7	14.0
	(2-4)	Saida Cooperative Association for Processing and Marketing of Rural Products	Tulkarm	Vegetable, Herb			✓	0	182	182	0	33	33	14	13.0
	(2-5)	Maithalon and Sanor Farmer Extension Group	Jenin	Rainfed Crop, Vegetable	✓			127	140	267	46	50	96	14	19.1
	(2-6)	Qabatiya Farmer Extension Group	Jenin	Vegetable		✓		237	0	237	89	0	89	14	16.9
				Sub-total	1	4	1	839	325	1,164	306	85	391	77	15.1
					16.7%	66.7%	16.7%	72.1%	27.9%	100.0%	78.3%	21.7%	100.0%	-	-
3rd	(3-1)	Dier Ballout Women Extension Group	Salfit	Vegetable, Herb			✓	6	172	178	6	56	62	11	16.2
	(3-2)	Salfit Olive Farmer Extension Group	Salfit	Olive	✓			156	65	221	33	17	50	12	18.4
	(3-3)	Kharbatheh Musbah Olive Farmer Extension Group	Ramallah	Olive		✓		136	0	136	48	0	48	13	10.5
	(3-4)	Al Moghuyer Livestock Farmer Extension Group	Ramallah	Livestock		✓		193	0	193	74	0	74	13	14.8
	(3-5)	Beit Doqo Grape Farmer Extension Group	Jerusalem	Fruit	✓			152	25	177	48	8	56	13	13.6
	(3-6)	Al Sawahreh Arab Cooperative Society for Livestock Development	Jerusalem	Livestock	✓			151	22	173	58	10	68	13	13.3
				Sub-total	3	2	1	794	284	1,078	267	91	358	75	14.4
					50.0%	33.3%	16.7%	73.7%	26.3%	100.0%	74.6%	25.4%	100.0%	-	-
4th	(4-1)	Al Khader Grape Farmer Extension Group	Bethlehem	Fruit	✓			165	72	237	32	10	42	17	13.9
	(4-2)	Janata Livestock Farmer Extension Group	Bethlehem	Livestock	✓			213	78	291	73	21	94	14	20.8
	(4-3)	Sa'eer Farmer Extension Group	Hebron	Vegetable	✓			107	58	165	57	18	75	13	12.7
	(4-4)	Agriculture Knowledge Leading Group in Halhoul	North Hebron	Fruit	✓			158	226	384	33	44	77	20	19.2
	(4-5)	Yatta Agriculture Innovative Farmer Extension Group	Yatta	Livestock	✓			193	15	208	43	15	58	13	16.0
	(4-6)	Al Hejri Farmer Extension Group	South Hebron	Vegetable	✓			155	77	232	54	23	77	13	17.8
				Sub-total	6	0	0	991	526	1517	292	131	423	90	16.9
					100.0%	0.0%	0.0%	65.3%	34.7%	100.0%	69.0%	31.0%	100.0%	-	-
				Total	**12**	**8**	**4**	**3,102**	**1,581**	**4,683**	**1,030**	**425**	**1,455**	**313**	**15.0**
					50.0%	**33.3%**	**16.7%**	**66.2%**	**33.8%**	**100.0%**	**70.8%**	**29.2%**	**100.0%**	**-**	**-**

6. Summary of Inventory Survey Results for Farmer Groups in the Jordan Valley Area (for reference)

Total Number of Farmer Groups	Registered	Member			Group Type			Farming Activity					
		Male	Female	Total	Mixed Group	Male Group	Female Group	Wheat	Vegetables	Fruits	Dates	Beehives	Livestock
37	31	4,032	1,105	5,137	15	10	12	27	30	19	24	22	33
-	**83.8%**	**78.5%**	**21.5%**	**100.0%**	**40.5%**	**27.0%**	**32.4%**	**73.0%**	**81.1%**	**51.4%**	**64.9%**	**59.5%**	**89.2%**

Source : EVAP-1, Summary Report for the inventory Survey for Farmers Organizations in Jericho and Jordan River Rift Valley, November 2011

Attachment 6-5

Analysis on the Results of Extension Step 7 (Profitability Assessment by Farmers)

"Project on Improved Extension for Value-Added Agriculture (EVAP 2)" (hereinafter called EVAP-2 or the Project) are divided into 3 contract periods. Extension activities for the target farmer groups were carried out by Cycle (1st – 4th Cycles). Thus, the results of Step 7 for respective Cycles are described in the following reports.

- The results of the 1st Cycle: Project Progress Report (2nd Period)
- The results of the 2nd – 4th Cycles: Project Completion Report (this Report)

Target farmer groups of the 2nd Cycle

Workshops of Extension Step 7 (Profitability Assessment) were held for target farmer groups of the 2nd Cycle in February and March 2020, where results of implementing the EVAP Extension Package were evaluated. Analysis on the results of this Step 7 is described below.

(1) Number of samples and population

Number of farmers who participated in workshops of Extension Step 7 (Profitability Assessment by Farmers) and responded to questionnaires is 56 (38 males and 18 females). This accounts for 16.7% of 335 beneficiary farmers ("population") who participated in EVAP activities at least once. Answers from 12 farmers (7 males and 5 males) who participated in the Step 7 workshop but did not participate in the previous Steps are not included into aggregation. Participation in this Step depends on farmers' decisions, it should be noted that the results may be biased.

Table 1 Number of respondents for evaluation in Extension Step 7 (2nd Cycle)

Farmer Group (2nd Cycle)	Number of Respondents (Sample Number)			Number of Beneficiaries (at least one-time participation)		
	Male	Female	Male	Female	Male	Female
Maithalon and Sanor Farmer Extension Group (Jenin)	6	3	9	46	47	93
Qabatiya Farmer Extension Group (Jenin)	10	0	10	87	0	87
Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarem)	0	15	15	0	32	32
Al-Izab Farmer Extension Group (Qalqilia)	11	0	11	52	1	53
Qalqilia Livestock Extension Group (Qalqilia)	11	0	11	70	0	70
Total	38	18	56	255	80	335

(2) Ratios of Farmers whose major household incomes are from agriculture

Figure below shows ratios of farmers whose major household incomes are from agricultural activities by group. This ratio is 71.4% in total. On the other hand, the ratio of farmers whose major household incomes are from non-agricultural activities is 28.6% in total. While major incomes of all members of Qabatiya Group are from agricultural activities, those ratios for other groups are around 65%. Since Qalqilia is adjacent to Israel, migrant workers to Israel are considered to be major income sources. In case of Maithalon Group (Jenin), since rainfed field crops are not profitable, it is thought that other income sources than agricultural ones are needed.

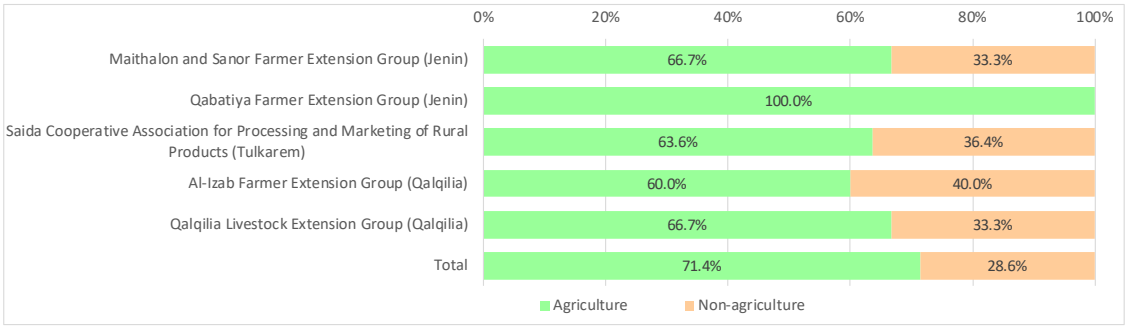


Figure 1 Ratios of farmers whose major household incomes are from agriculture (by group) (2nd Cycle)

It has been revealed through EVAP activities that objectives of farming differ depending on major household income sources and accordingly needs for technical trainings also differ. In consideration of these tendencies, Extension Step 4 (Farming Improvement Planning with Extension Needs Identification) adopts the system that DOA extensionists could draw technical training needs from participating farmers.

(3) Change in information collection through EVAP activities

EVAP-2 considers that target farmers could gradually accumulate necessary information for farming through providing necessary information and technologies as well as teach how to obtain them to these farmers by Step of the EVAP Extension Package. Figure below shows the situations of information collection for farming without (before, left) the Project and with (after, right) the Project.

Percentages of farmers who collect or reflect information after the Project have been increased from those before the Project in all types of information.

That of "support program" has increased most (46.2% points increase), followed by that of "farm records" (44.2% points increase) and that of "labor and workload among family members" (42.3% points increase). On the other hand, that of "climate and natural condition" has increased least (17.3% points increase) since most of target farmers (57.7%) have already considered climate and natural conditions for their farm planning even before the Project.

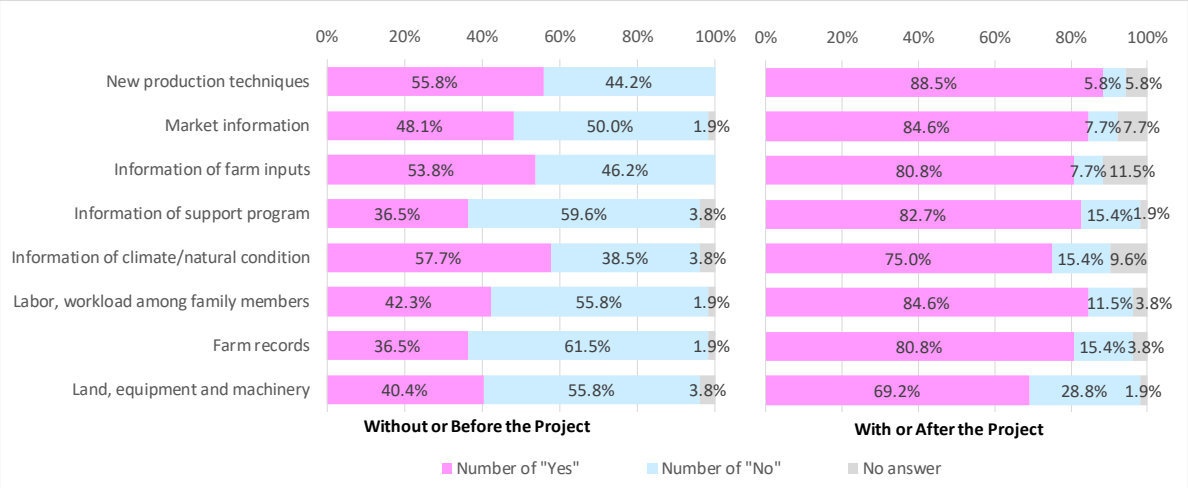


Figure 2 Change in ratio of farmers who collect necessary information for farming (2nd Cycle)

(4) Application of information and techniques to farming

EVAP-2 has carried out extension activities through various extension methods such tours (awareness creation tour, market visit, business matching), planning sessions (for study tours, farming improvement plan, training plans), lectures for technical trainings, distribution of training materials/manuals, etc. Figure below shows ratios of farmers who have applied information and techniques obtained from EVAP activities for their farming activities by type of extension method. “EVAP Extension Package” means whole extension activities by EVAP-2. Percentage of farmers applying what obtained from study tours is highest (88.5%).

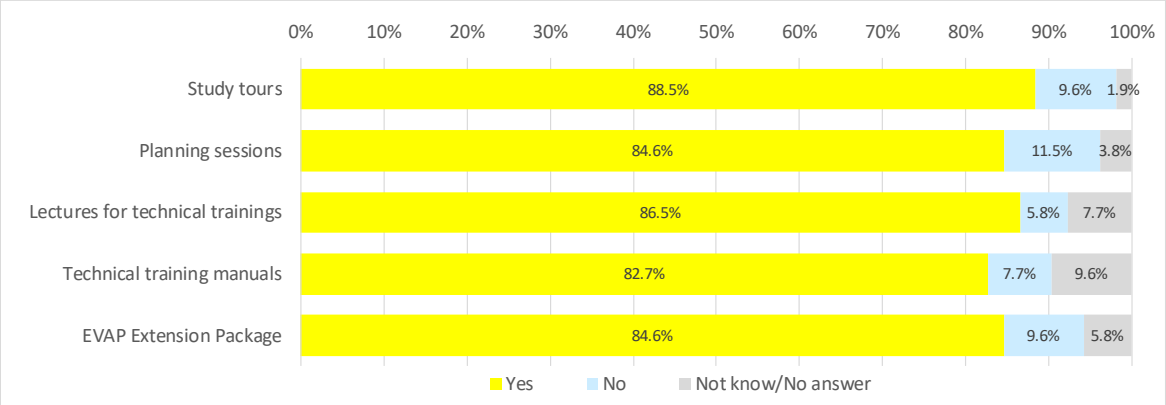


Figure 3 Application of techniques and information to farming practices (2nd Cycle)

(5) Improvement of problems through project activities

Respective problems faced by farmers should be improved for enhancing their income from agricultural activities. At the workshops for Extension Step 7, questions on i) whether they had faced typical problems regarding crop cultivation and/or livestock, and ii) whether those problems had been improved /are to be improved through EVAP activities were asked to participating farmers. Figures below show ratios (%) of number of farmers whose problems had been improved/are to be improved (above ii)) against that of farmers who had faced typical problems (above i)) by problem.

The figure below shows the ratios regarding crop cultivation. Issues with high ratios (“improved” + “to be improved”) are “unsuitable crop selection unmatching market needs” (58.8%+41.2%), “poor techniques of pest & disease control” (39.1%+56.5%), and “poor techniques of fertilization” (63.2%+31.6%). It could be thought that these problems have been/are to be improved by such EVAP activities as market visits, technical trainings on fertilization (compost making), and introduction of grafted seedlings with disease tolerance (with matching to seedling companies). On the other hand, high ratios of farmers answered, “no improvement” for problems of “long working hours” (35.0%), “high costs of farm inputs” (32.3%), and “high transportation cost” (25.0%). EVAP-2 did not implement concreate activities for solving these problems (activities of group procurement of agricultural materials are included in certain groups for their Cycles), thus, many famers felt that these problem were not improved.

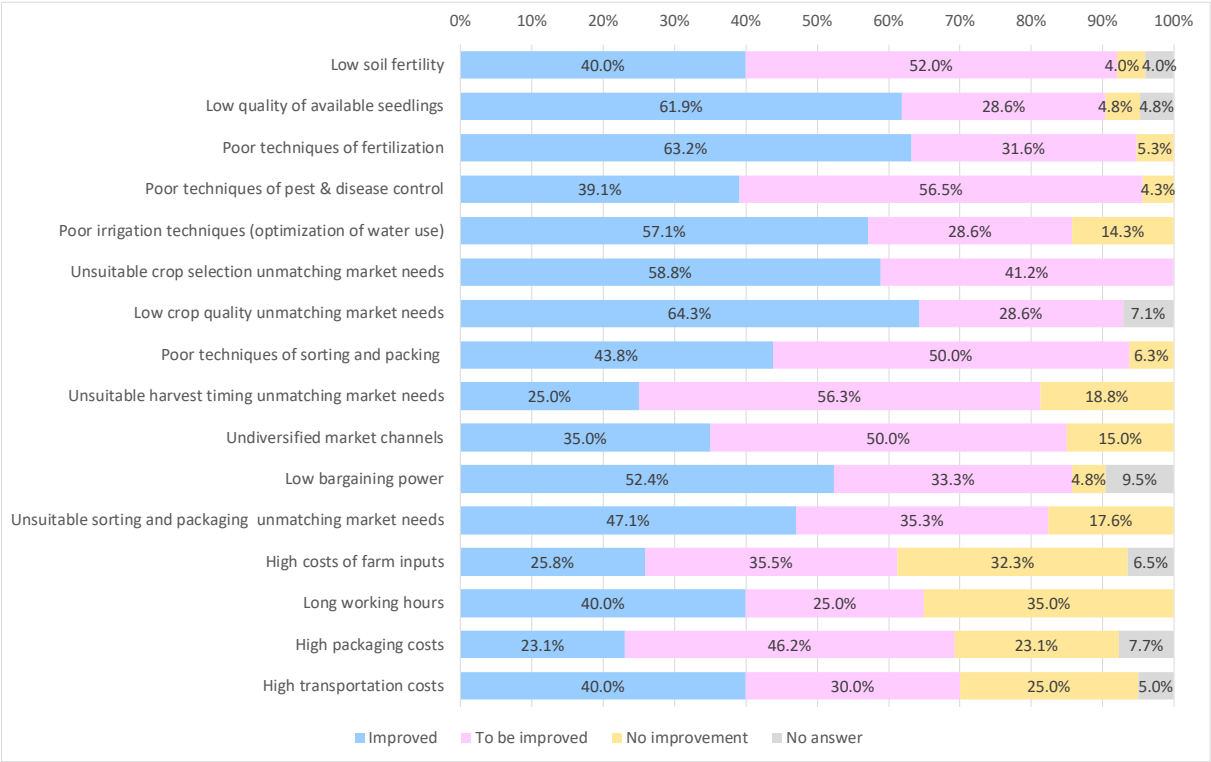


Figure 4 Improvement of problems through project activities (crop cultivation) (2nd Cycle)

The figure below shows the ratios regarding livestock. All famers answered issues of “poor techniques of disease control”, “high mortality rate of lambs”, “poor reproductive performance of ewes”, “poor techniques of fatting” were improved. It could be thought that these issues have been improved by such EVAP activities as visits to good practice farmers (isolation method of newborn/lambs), animal medicine company, fodder company, technical training on management of animal health and disease, and distribution of the fact sheets (symptoms, preventive measures, effective medicines for animals). On the other hand, high ratio (over 71.4%) of farmers answered, “no improvement” for issue of “high costs of disease control”. Although the Project has provided information on disease prevention measures and symptoms of diseases, prices of animal medicines and veterinary services are set by private sectors, which is difficult for the Project to deal with.

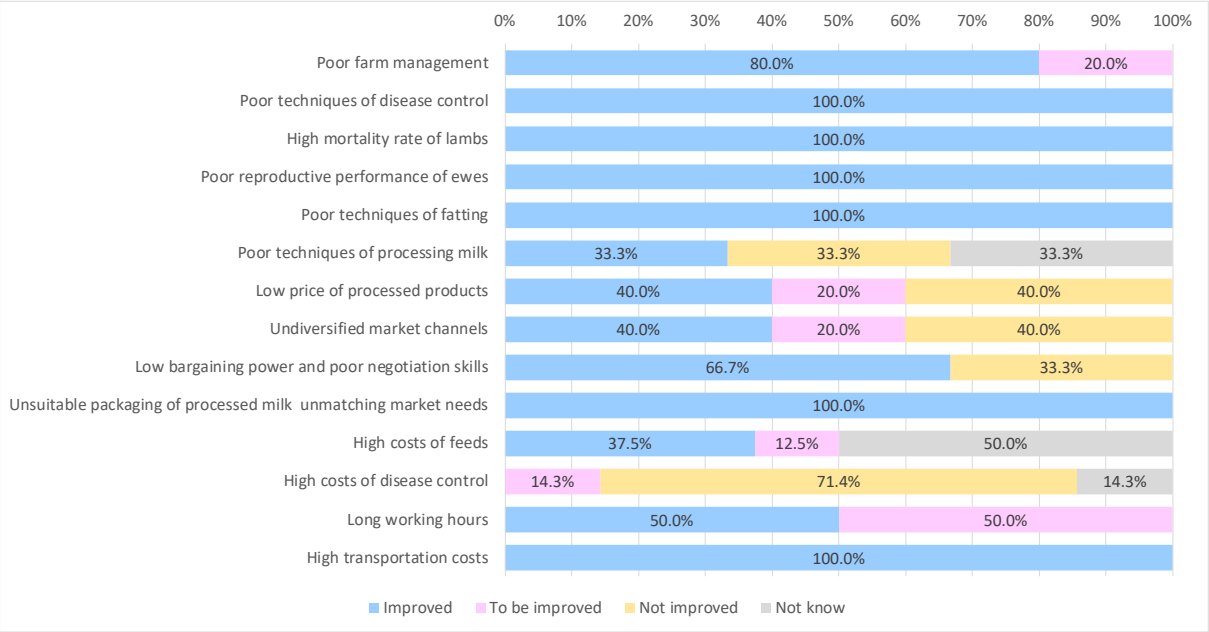


Figure 5 Improvement of problems through project activities (livestock) (2nd Cycle)

(6) Change in agriculture income of target farmer households

Table below shows changes in agricultural incomes of target farmers by group. Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP-2 (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP-2 activities (baseline status). Net agricultural profits with EVAP-2 have been increased by 60.9% for 2 years in comparison with those without EVAP-2. Thus, annual increase in agricultural net profits is 26.8%.

Table 2 Change in agricultural net profits after/with EVAP-2 by group (2nd Cycle)

Farmer Group (2nd Cycle)	Total Net Profit (NIS/year) (Baseline)	Total Net Profit (NIS/year) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/ HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% (Present/ Baseline)	% (difference)
Maithalon and Sanor Farmer Extension Group (Jenin)	13,090	57,130	9	1,454	6,348	436.4%	+336.4%
Qabatiya Farmer Extension Group (Jenin)	193,750	303,325	10	19,375	30,333	156.6%	+56.6%
Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarem)	12,600	54,500	15	840	3,633	432.5%	+332.5%
Al-Izab Farmer Extension Group (Qalqilia)	176,660	354,830	11	16,060	32,257	200.9%	+100.9%
Qalqilia Livestock Extension Group (Qalqilia)	741,340	1,060,390	11	67,395	96,399	143.0%	+43.0%
Total	**1,137,440**	**1,830,175**	**56**	**20,311**	**32,682**	**160.9%**	**+60.9%**

- Baseline figure of average net profits of Maithalon and Sanor Farmer Extension Group (Jenin) is relatively low since member farmers are basically engaged in cultivating rain-fed field crops whose profitability is low. Thus, increase rate in net profits is high (increased by 336.4%) by introducing high-profitability crops such as cucumber and parsley.
- Since all members of Qabatiya Farmer Extension Group (Jenin) are full-time vegetable farmers, their

agricultural incomes were already reached to high level and their technical level was also high. Although introduction of high-profitability crops and changes of sales method were applied for, increase rate in net profits remains not high (increased by 56.6%).

- Since agricultural incomes are supplemental for household incomes of majority members of Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarem), baseline figure of average net profits is relatively low. Increase in net profits was all produced by group farming activities with 15 members, thus should be divided by this number, which is still in low level.
- Al-Izab Farmer Extension Group (Qalqilia): Some members introduced high-profitability crops and gained very high profits, which raises average increase in net profit (increased by 100.9%).
- Qalqilya Livestock Extension Group: Large increase in net profits was achieved through increasing number of newborns, decreasing mortality rate of newborns, improving health conditions of lambs, and decreasing cost of fodder. Since their agricultural incomes were already reached to high level before EVAP, increase rate in net profits remains not high (increased by 43.0%).

(7) Ratios of farmers whose agricultural incomes have increased

Table below shows ratios of farmers whose net agricultural profits have been increased, not been changed, or been decreased by EVAP-2 activities. 91.1% of farmers in total have gained increase in their net agricultural profits, while 8.9% of them, who have continued conventional agricultural activities, have not gained any change in their profits.

Table 3 Ratios of farmers whose net profits have increased (by group) (2nd Cycle)

Farmer Group (2nd Cycle)	Number of farmers whose net profits **increased**	Number of farmers whose net profits **did not change**	Number of farmers whose net profits **decreased**
Maithalon and Sanor Farmer Extension Group (Jenin)	100.0%	0.0%	0.0%
Qabatiya Farmer Extension Group (Jenin)	90.0%	10.0%	0.0%
Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarem)	100.0%	0.0%	0.0%
Al-Izab Farmer Extension Group (Qalqilia)	90.9%	9.1%	0.0%
Qalqilia Livestock Extension Group (Qalqilia)	72.7%	27.3%	0.0%
Total	**91.1%**	**8.9%**	**0.0%**

(8) Satisfaction of target farmers on EVAP extension activities

EVAP-2 has carried out extension activities through various extension methods. Figure below shows the results of evaluation on farmers' satisfaction on these methods with 4 grades. Nearly all expressed their satisfaction on all EVAP activities (very satisfied" or "satisfied").

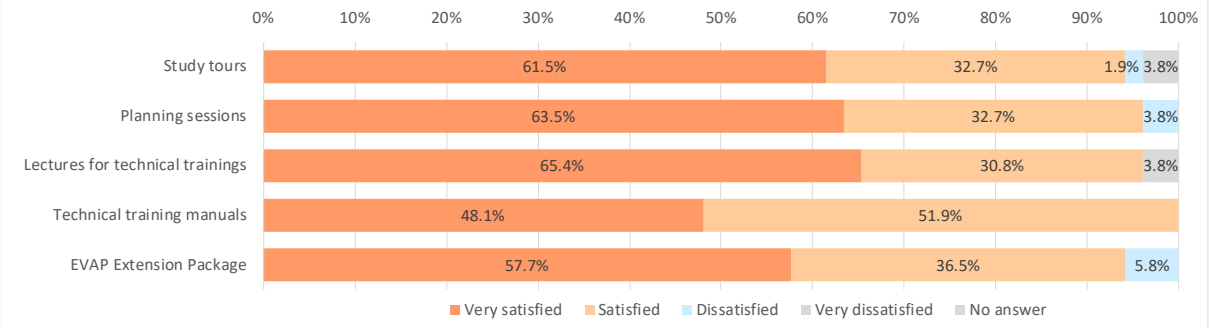


Figure 6 Satisfaction of target farmers on EVAP extension activities (2nd Cycle)

(9) Change in relations between extensionists and target farmers

How target farmers evaluate performance of extensionists and their communication situation with extensionists were checked. Regarding explanation by the extensionists in implementing EVAP activities, though 53.8% of respondent farmers answered, "with some difficulties", all answered they understood explanation by the extensionists. Regarding communication with the extensionists, nearly all answered that "have had more opportunities to consult with the extensionists after EVAP" and "intend to consult with the extensionists when facing problems". It could be thought that communications between the farmers and extensionists have been facilitated through EVAP activities.

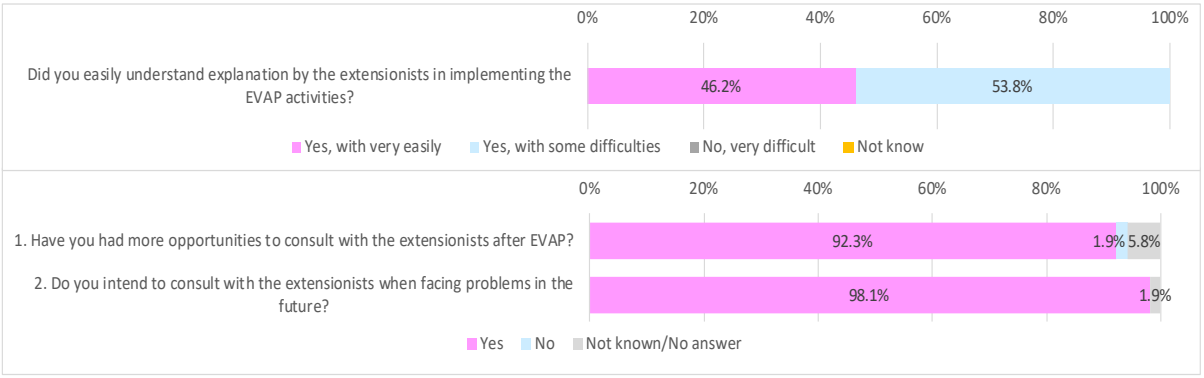


Figure 7 Evaluation of performance of extensionists and change in relations between extensionists and target farmers (2nd Cycle)

(10) Change in information collection by gender

It seems that men usually collect information from outside of households due to practices of Muslim societies. Through EVAP activities so far implemented, it was revealed that women usually obtain information from men or women are rarely shared with information in their households, which was regarded as one of the factors preventing improvement of agricultural profits. Thus, EVAP-2 has considered incorporating measures for filling up the gap between men and women on necessary information for farming which will lead to enhancing agricultural profits.

Figure below shows changes in who collect or reflect necessary information for farming through EVAP activities. Ratios of farmers who answered "women collect" or "both women and men collect" have been increased for all kinds of information except "labor and workloads among family members" through EVAP activities. Particularly, these ratios for "market information", "information of support program", and "information of land, equipment and machinery", "market information", and "farm records" have been largely enhanced (by 32.9%, 19.4%, and 17.9%, respectively).

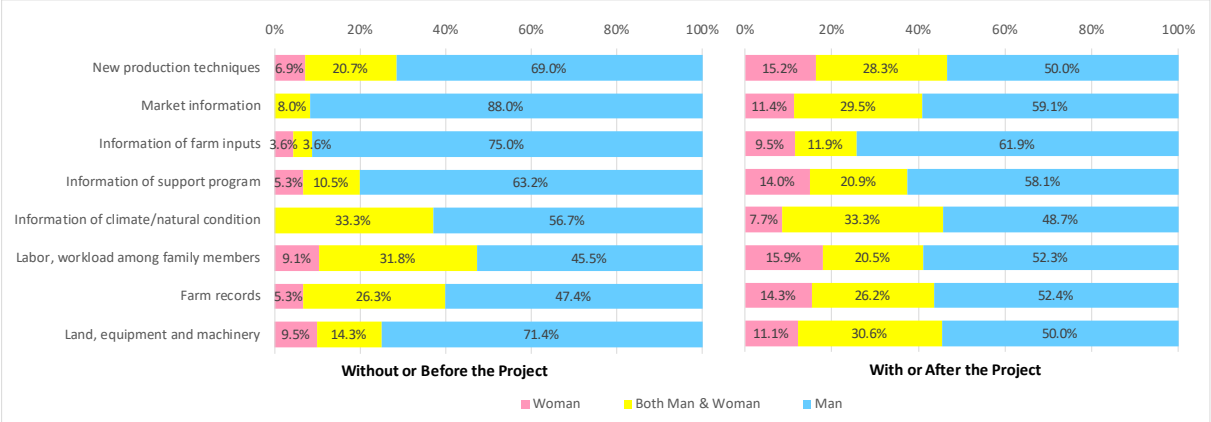


Figure 8 Who in household (men or women) collect necessary information (2nd Cycle)

(11) Evaluation of Effectiveness of Gender Consideration in EVAP-2

Questions based on gender viewpoints as follows were asked to target farmers to evaluate effectiveness of gender consideration measures applied for EVAP extension activities.

Questions for Evaluating Effectiveness of Gender Consideration Measures in EVAP2:

Viewpoint (1): Improve access/control to resources (knowledges, technologies, training opportunities, agricultural inputs, etc.) (Asked for female farmers only)

A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?

A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?

A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?

A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?

A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?

Viewpoint (2): Enhance work efficiency and productivities of family members

B-1. Have workloads of family members (particularly female farmers) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?

Viewpoint (3): Facilitate women's involvement in decision-making in family

C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?

C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?

Viewpoint (4): Facilitate gender awareness of male members and local communities

D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?

D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?

Above questions regarding A. were answered by female member, and other questions (B., C., D.) were answered by both male and female members. Figure below shows calculated results of answers from farmers for these questions.

Regarding questions A., nearly all women answered that "they could easily participate in EVAP activities" (A-1), "their opinions were appropriately taken and reflected to tour and training plans" (A-

2) and “they could obtain necessary information/knowledge/skills through EVAP activities” (A-3). It could be thought that gender consideration measures taken by EVAP have facilitated women’s active participation in activities and access to resources (information, knowledge, and skills).

Regarding other questions, 88.5% of respondents answered, “they shared information provided by EVAP with other family members” (C-1) and 78.8% of them answered “they have had more communications with other family members for improving their farming activities” (D-1). In implementing EVAP activities, DOA extensionists and EVAP-2 Team repeatedly requested participating farmers to share the information provided by EVAP with other family members. This could be thought to lead to the answers of C-1 and D-1. On the other hand, about half of female farmers answered “No” for questions of “women members have been more involved with decision-making” (C-2) and “family members and community have been aware effectiveness of women’s involvement in agricultural activities by posting their activities on Facebook” (C-4).

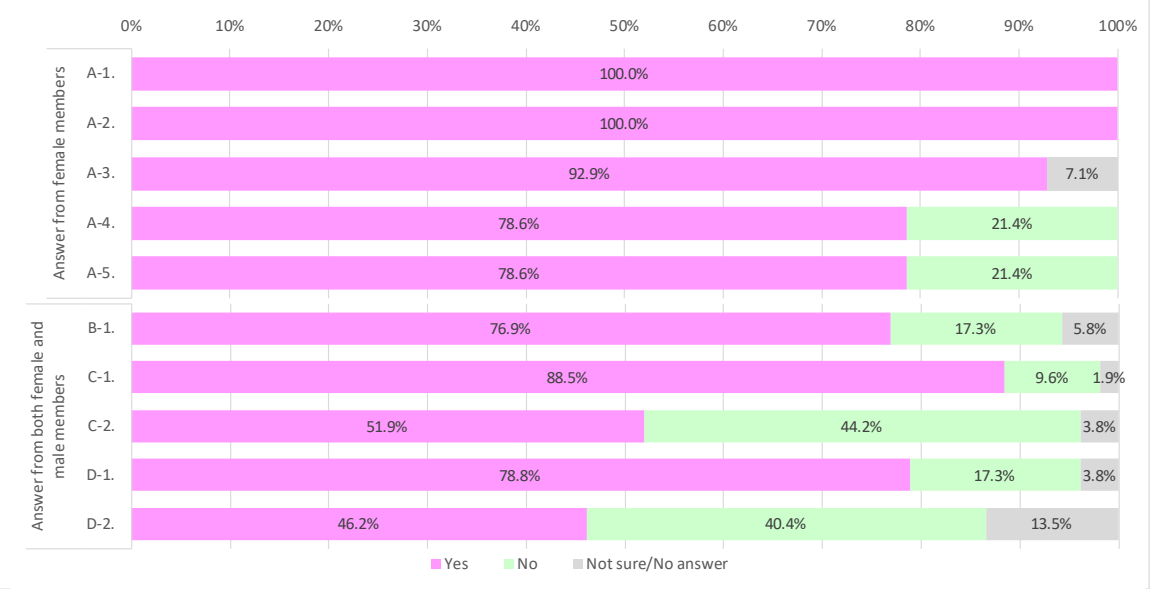


Figure 9 Evaluation of effectiveness of gender consideration in EVAP-2 (2nd Cycle)

Target farmer groups of the 3rd Cycle

Workshops of Extension Step 7 (Profitability Assessment by Farmers) were held for target farmer groups of the 3rd Cycle in March and April 2021, where results of implementing the EVAP Extension Package were evaluated. Analysis on the results of this Step 7 is described below.

(1) Number of samples and population

Number of farmers who participated in workshops of Extension Step 7 (Profitability Assessment by Farmers) and responded to questionnaires is 49 (36 males and 13 females). This accounts for 13.7% of 358 beneficiary farmers (“population”) who participated in EVAP activities at least once. Since the workshops were held without improving COVID-19 infection situation, number of participants was limited. Participation in this Step depends on farmers’ decisions, it should be noted that the results may be biased.

Table 4 Number of respondents for evaluation in Extension Step 7 (3rd Cycle)

Farmer Group (3rd Cycle)	Number of Respondents (Sample Number)			Number of Beneficiaries (at least one-time participation)		
	Male	Female	Male	Female	Male	Female
Salfit Olive Farmers Extension Group (Salfit)	7	2	9	33	17	50
Dier Ballout Women Farmers Extension Group (Salfit)	0	9	9	6	56	62
Beit Doqqo Grape Farmers Extension Group (Jerusalem)	8	0	8	48	0	48
Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem)	8	1	9	58	10	68
Al Mughayier Livestock Farmers Extension Group (Ramallah)	7	0	7	74	0	74
Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	6	1	7	48	8	56
Total	36	13	49	267	91	358

(2) Ratios of Farmers whose major household incomes are from agriculture

Figure below shows ratios of farmers whose major household incomes are from agricultural activities by group. This ratio is 49.0% in total. Particularly, this ratio of Dier Ballout Group is low (11.1%) since husbands of most members are engaged in other economic activities including working in Israel. These rations of groups in Ramallah and Jerusalem which are close to city except for Al-Sawahren Livestock group which is Bedouin are less than half since it is thought that members themselves and their family members are additionally engaged in other activities.

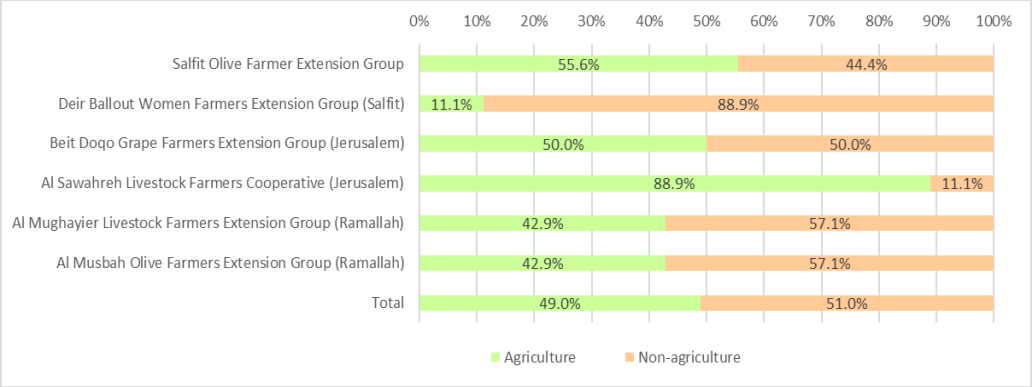


Figure 10 Ratios of farmers whose major household incomes are from agriculture (by group) (3rd Cycle)

(3) Change in information collection through EVAP activities

EVAP-2 considers that target farmers could gradually accumulate necessary information for farming through providing necessary information and technologies as well as teach how to obtain them to these farmers by Step of the EVAP Extension Package. Figure below shows the situations of information collection for farming without (before, left) the Project and with (after, right) the Project.

Percentages of farmers who collect or reflect information after the Project have been increased from those before the Project in all types of information. Information of “new production techniques” and “information of support program” have increased most (40.8% points increase each), followed by that of “market information” (38.8% points increase). On the other hand, that of “climate and natural condition” has increased least (28.6% points increase) since most of target farmers (63.3%) have already

considered climate and natural conditions for their farm planning even before the Project.

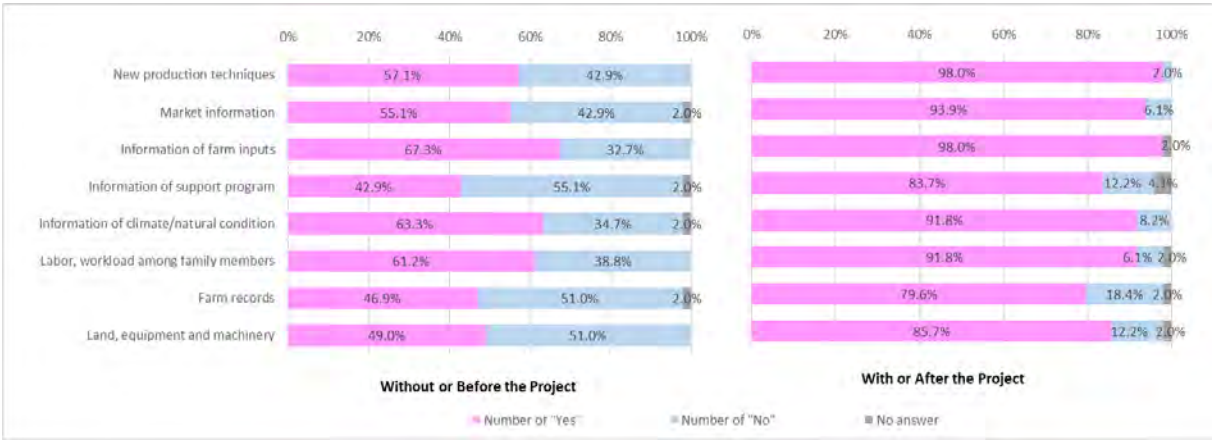


Figure 11 Change in ratio of farmers who collect necessary information for farming (3rd Cycle)

(4) Application of information and techniques to farming

EVAP-2 has carried out extension activities through various extension methods such tours (awareness creation tour, market visit, business matching), planning sessions (for study tours, farming improvement plan, training plans), lectures for technical trainings, distribution of training materials/manuals, etc. Figure below shows ratios of farmers who have applied information and techniques obtained from EVAP activities for their farming activities by type of extension method. “EVAP Extension Package” means whole extension activities by EVAP-2. Since training contents are different for each farmer group and cultivated crops are different for each farmer, EVAP-2 has not evaluated introduction rate for each technology in order not to complicate the method from the viewpoint of sustainablity. Nealy all have applied techniques and information obtained from EVAP activities for their actual farming.

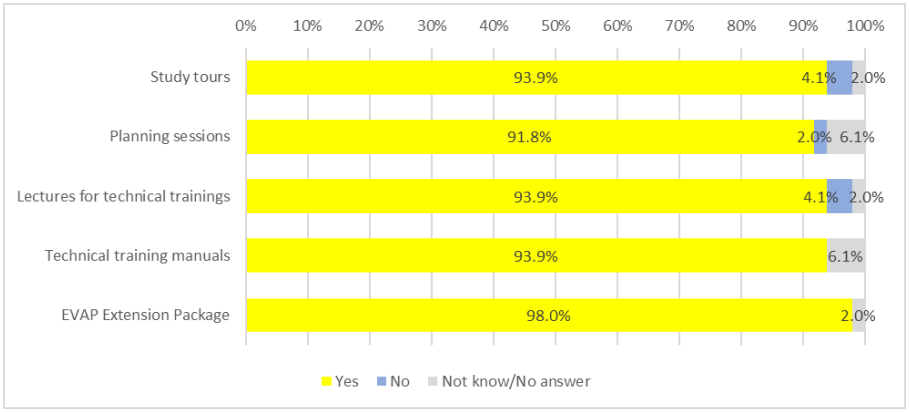


Figure 12 Application of techniques and information to farming practices (3rd Cycle)

(5) Improvement of problems through project activities

Respective problems faced by farmers should be improved for enhancing their income from agricultural activities. At the workshops for Extension Step 7, questions on “whether they had faced typical problems regarding crop cultivation and/or livestock” and “whether those problems had been improved /are to be improved through EVAP activities” were asked to participating farmers.

The following figure shows the existence of problems in crop (including olive and grape) cultivation (left graph) and the status of improvement (right graph). More than 60% of the farmers originally had

the following problems: (i) "Poor pest management techniques" (81.8%), (ii) "High cost of agricultural inputs" (78.8%), (iii) "Low soil fertility" (66.7%), (iv) "Low fertilizer application technology" (60.6%), and (v) "Undiversified marketing channels" (60.6%). The percentages of farmers who answered that these problems have improved or are expected to be improved were: (i) "Poor pest management technology" 81.5% (55.6%+25.9%), (ii) "High cost of agricultural inputs" 84.6% (57.7%+26.9%), (iii) "Low soil fertility" 90.9% (54.5%+36.4%), (iv) "Poor fertilizer technology" 95.0% (65.0%+30.0%), and (v) "Undiversified sales channels" 75.0% (55.0%+20.0%). The situation seems to have improved through market visits, training in pest and disease control techniques (including pruning techniques), training in compost making and fertilizer application techniques, introduction of joint purchasing of agricultural inputs (seeds, seedlings, pesticides, fertilizers, etc.), and development of sales channels through branding, direct sales, and joint sales, all of which were conducted under EVAP-2.



Figure 13 Improvement of problems through project activities (crop cultivation) (3rd Cycle)

Similarly, the following figure shows the existence of problems in livestock production (left graph) and the status of improvement (right graph). More than 60% of the farmers had the following problems: (i) "High lamb mortality rate" (87.5%), (ii) "High feed cost" (87.5%), (iii) "High cost of disease control" (75.0%), (iv) "Low price of processed milk products" (68.8%), (v) "Undiversified marketing channels" (68.8%), (vi) "Long working hours" (68.8%), (vii) "Low price of processed milk products" (68.8%) and (viii) “Low reproduction rate of ewes” (62.5%). The percentages of farmers who answered that these problems were improved or expected to be improved were: (i) "High lamb mortality rate" 78.6% (50.0%+28.6%), (ii) "High feed cost" 57.1% (57.1%+0%), (iii) "High cost of disease management" 66.7% (41.5%+25.0%)", (iv) “Low price of processed milk products” 90.9% (54.5%+36.4%), (v) “Undiversified marketing channels” 100% (54.5%+45.5%), (vi) “Long working hours” 81.9% (45.5%+36.4%), (vii) “Poor livestock disease control technology” 90.0% (55.0%+20.0%), and (viii) "Low ewe reproduction rate" 90.0% (40.0%+50.0%).

The situation has been improved by the following activities conducted under EVAP-2: visits to good practice farmers in sheep rearing (e.g., isolated rearing of newborn and lambs), visits to livestock pharmaceutical companies, visits to feed companies, training in livestock health and disease

management techniques, preparation and distribution of fact sheets on disease symptoms, prevention methods, and effective livestock medicines, and trial of artificial insemination. Although EVAP-2 activities included training in feeding techniques and joint purchase of feed by Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem), more than 40% of the farmers still reported that the issue of "high cost of feed" had not improved. Similarly, EVAP-2 provided information on disease prevention and disease symptoms, but more than 30% of farmers still reported that the high cost of disease management had not improved. This may be because the prices for feed, livestock medicine, and veterinary diagnostics are set by the private sector, and therefore it was difficult to improve them sufficiently through EVAP-2 activities alone.



Figure 14 Improvement of problems through project activities (livestock) (3rd Cycle)

(6) Change in agriculture income of target farmer households

Table below shows changes in agricultural incomes of target farmers by group. Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP-2 (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP-2 activities (baseline status). Net agricultural profits with EVAP-2 have been increased by 44.7% for 2 years in comparison with those without EVAP-2. Thus, annual increase in agricultural net profits is 20.29%.

Table 5 Change in agricultural net profits after/with EVAP-2 by group (3rd Cycle)

Farmer Group (3rd Cycle)	Total Net Profit (NIS/year) (Baseline)	Total Net Profit (NIS/year) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% (Present/ Baseline)	% (difference)
Salfit Olive Farmers Extension Group (Salfit)	23,982*	28,562	9	2,665*	3,174	119.10%	+19.10%
Dier Ballout Women Farmers Extension Group (Salfit)	24,645	47,975	9	2,738	5,331	194.70%	+94.70%
Beit Doqqo Grape Farmers Extension Group (Jerusalem)	98,490	151,270	7	14,070	21,610	153.60%	+53.60%
Al Sawahreh Livestock Farmers Extension Group (Jerusalem)	190,200	298,150	9	21,133	33,128	156.80%	+56.80%

Farmer Group (3rd Cycle)	Total Net Profit (NIS/year) (Baseline)	Total Net Profit (NIS/year) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% (Present/ Baseline)	% (difference)
Al Mughayier Livestock Farmers Extension Group (Ramallah)	136,192	163,750	7	19,456	23,393	120.20%	+20.20%
Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	19,415*	23,570	7	2,773*	3,367	121.40%	+21.40%
Total	492,924	713,277	48	10,269	14,860	144.70%	+44.70%

*Note: * values in the Baseline figures are calculated by discounting back the percentage increase (%: Present/Baseline) from the Net Profit (NIS/year/HH) reported by farmers.*

- The highest increase in agricultural income was recorded by Dier Ballout Women Farmers Extension Group (Salfit) (increased by 94.7%). Since this is a women's group and agriculture is not the main source of household income for most of the members, the level of agricultural income is not high. The members of this group are active by nature and are actively adopting the knowledge and skills gained from the EVAP-2 activities (introduction of highly profitable crops, joint purchase of agricultural inputs, application of compost, development of new marketing channels, etc.) to increase their income.
- In general, it is difficult to increase agricultural income in a short period of time in fruit tree cultivation. However, Beit Doqqo Grape Farmers Extension Group (Jerusalem) applied pruning techniques and disease prevention learned from the EVAP-2 activities, and the immediate result was an increase in the production and sale of leaves from grape picking and care. (*Vine leaves are also considered edible and sold in Palestine.)
- Al Sawahreh Livestock Extension Group (Jerusalem): Several farmers made sales increased due to lower neonatal mortality, improved lamb health, better husbandry, and increased lambing while their production costs decreased by reducing feed costs, etc.
- Al Mughayier Livestock Extension Group (Ramallah): Five out of seven farmers increased their sales due to reduction in neonate mortality, improvement in lamb health and improved husbandry, while only one farmer decreased his production cost.
- Among the members of the two livestock farmer groups, it was confirmed that farmers whose profitability had deteriorated due to lower lamb selling prices and higher feed costs because of the COVID-19 epidemic.

(7) Ratios of farmers whose agricultural incomes have increased

Table below shows ratios of farmers whose net agricultural profits have been increased, not been changed, or been decreased by EVAP-2 activities. 44 farmers (91.6%) in total have gained increase in their net agricultural profits, while 1 famer for no change and 3 farmers for decrease.

Table 6 Ratios of farmers whose net profits have increased (by group) (3rd Cycle)

Farmer Group (3rd Cycle)	Number of farmers whose net profits **increased**	Number of farmers whose net profits **did not change**	Number of farmers whose net profits **decreased**
Salfit Olive Farmers Extension Group (Salfit)	9	0	0
Dier Ballout Women Farmers Extension Group (Salfit)	9	0	0
Beit Doqqo Grape Farmers Extension Group (Jerusalem)	6	1	0
Al Sawahreh Livestock Farmers Extension Group (Jerusalem)	7	0	2
Al Mughayier Livestock Farmers Extension Group (Ramallah)	6	0	1
Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	7	0	0

Farmer Group (3rd Cycle)	Number of farmers whose net profits increased	Number of farmers whose net profits did not change	Number of farmers whose net profits decreased
Total	44 (91.7%)	1 (2.1%)	3 (6.3%)

(8) Satisfaction of target farmers on EVAP extension activities

EVAP-2 has carried out extension activities through various extension methods. Figure below shows the results of evaluation on farmers' satisfaction on these methods with 4 grades. Nearly all expressed their satisfaction on all EVAP activities (very satisfied" or "satisfied").

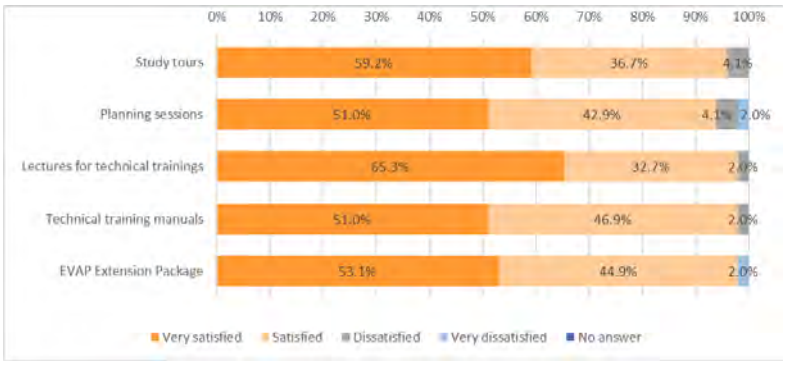


Figure 15 Satisfaction of target farmers on EVAP extension activities (3rd Cycle)

(9) Change in relations between extensionists and target farmers

How target farmers evaluate performance of extensionists and their communication situation with extensionists were checked. Regarding explanation by the extensionists in implementing EVAP activities, though 51.0% of respondent farmers answered, "with some difficulties", all answered they understood explanation by the extensionists. Regarding communication with the extensionists, 95.9% of them answered that "have had more opportunities to consult with the extensionists after EVAP" and 93.9% of them answered "intend to consult with the extensionists when facing problems". It could be thought that communications between the farmers and extensionists have been facilitated through EVAP activities.

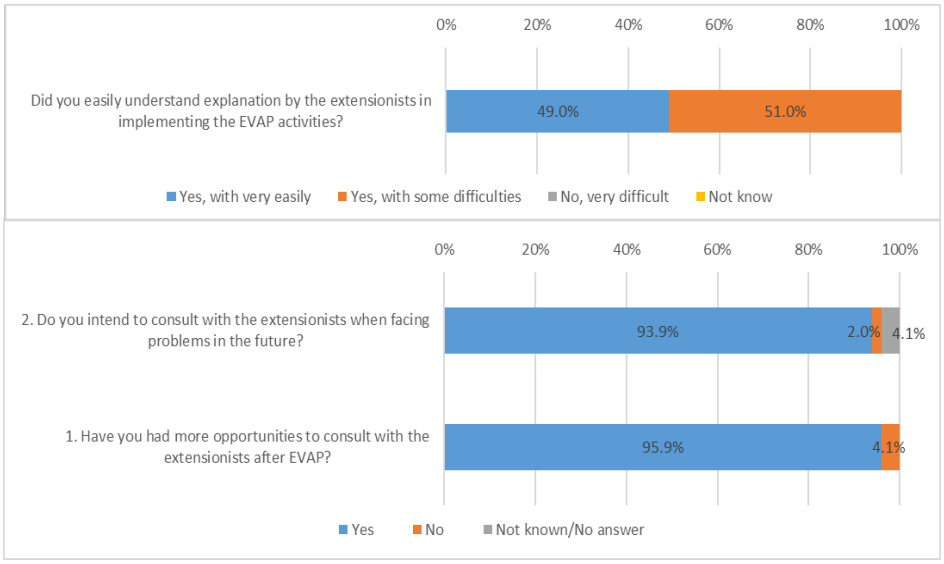


Figure 16 Evaluation of performance of extensionists and change in relations between extensionists and target farmers (3rd Cycle)

(10) Change in information collection by gender

It seems that men usually collect information from outside of households due to practices of Muslim societies. Through EVAP activities so far implemented, it was revealed that women usually obtain information from men or women are rarely shared with information in their households, which was regarded as one of the factors preventing improvement of agricultural profits. Thus, EVAP-2 has considered incorporating measures for filling up the gap between men and women on necessary information for farming which will lead to enhancing agricultural profits.

Figure below shows changes in who collect or reflect necessary information for farming through EVAP activities. Ratios of farmers who answered "women collect" or "both women and men collect" have been increased for all kinds of information. The greatest improvement was seen in "information on support programs" (increased by 34.4 % points), followed by "information on agricultural inputs" (increased by 19.7 % points) and "market information" (increased by 10.4 % points).

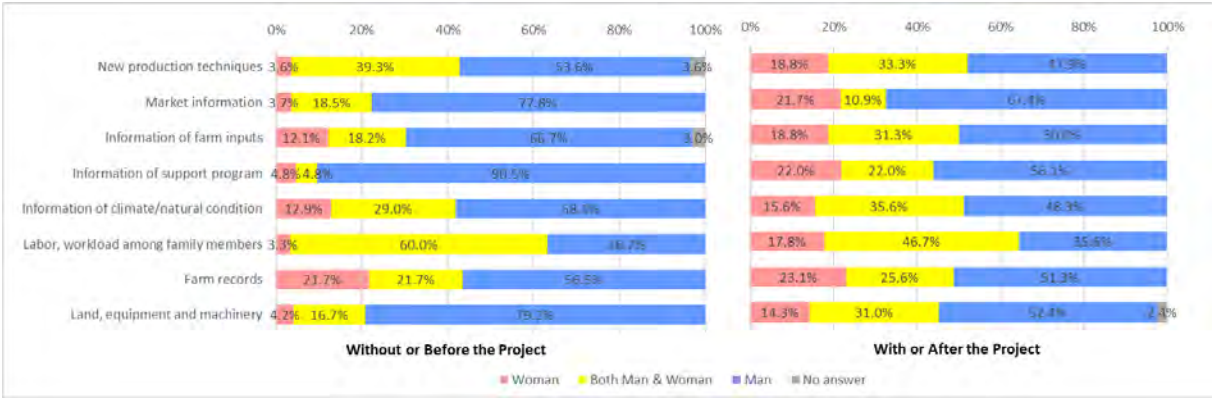


Figure 17 Who in household (men or women) collect necessary information (3rd Cycle)

(11) Evaluation of Effectiveness of Gender Consideration in EVAP-2

Questions based on gender viewpoints as follows were asked to target farmers to evaluate effectiveness of gender consideration measures applied for EVAP extension activities.

Questions for Evaluating Effectiveness of Gender Consideration Measures in EVAP2:

Viewpoint (1): Improve access/control to resources (knowledges, technologies, training opportunities, agricultural inputs, etc.) (Asked for female farmers only)

A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?

A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?

A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?

A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?

A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?

Viewpoint (2): Enhance work efficiency and productivities of family members

B-1. Have workloads of family members (particularly female farmers) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?

Viewpoint (3): Facilitate women's involvement in decision-making in family

C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?

C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?

Viewpoint (4): Facilitate gender awareness of male members and local communities

D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?

D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?

Above questions regarding A. were answered by female member, and other questions (B., C., D.) were answered by both male and female members. Figure below shows calculated results of answers from farmers for these questions.

Regarding questions A., all women answered that "they could easily participate in EVAP activities" (A-1) and "they could obtain necessary information/knowledge/skills through EVAP activities" (A-3). Nearly all (except one farmer) answered that "their opinions were appropriately taken and reflected to by DOA facilitators" (A-2) and "they have obtained networks to other farmers, markets, etc. through EVAP activities" (A-4). It could be thought that gender consideration measures taken by EVAP have facilitated women's active participation in activities and access to resources (information, knowledge, and skills).

Regarding other questions, 87.8% of respondents answered, "they have had more communications with other family members for improving their farming activities" (D-1). and 83.7% of them answered "they shared information provided by EVAP with other family members" (C-1). In implementing EVAP activities, DOA extensionists and EVAP-2 Team repeatedly requested participating farmers to share the information provided by EVAP with other family members. This could be thought to lead to the answers of C-1 and D-1.

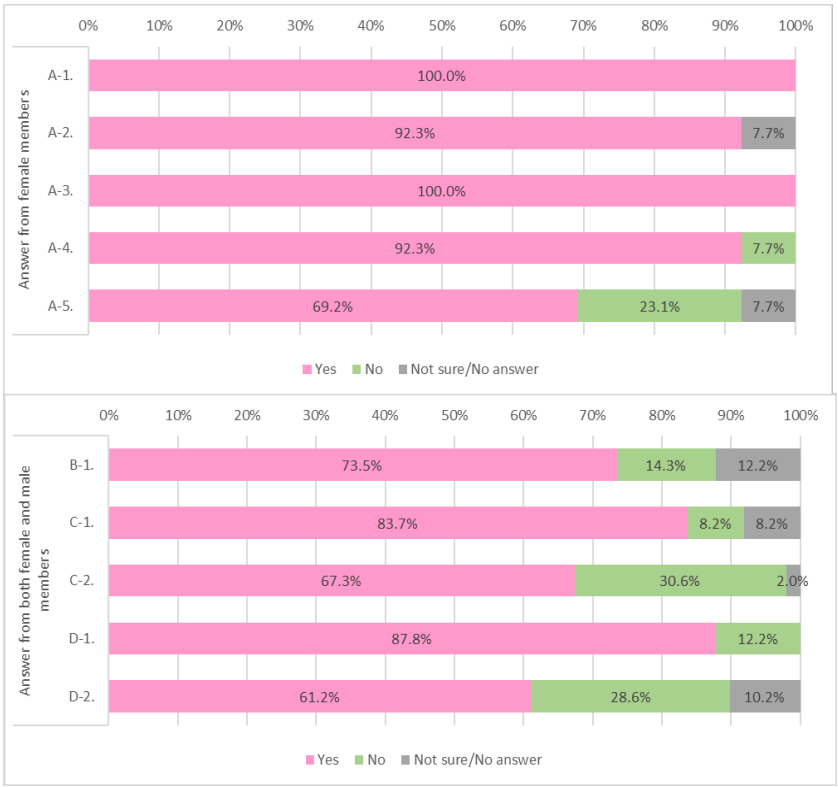


Figure 18 Evaluation of effectiveness of gender consideration in EVAP-2 (3rd Cycle)

Target farmer groups of the 4th Cycle

Workshops of Extension Step 7 (Profitability Assessment by Farmers) were held for target farmer groups of the 4th Cycle in December 2021 and January 2022, where results of implementing the EVAP Extension Package were evaluated. Analysis on the results of this Step 7 is described below.

(1) Number of samples and population

Number of farmers who participated in workshops of Extension Step 7 (Profitability Assessment by Farmers) and responded to questionnaires is 83 (50 males and 33 females). This accounts for 19.6% of 423 beneficiary farmers ("population") who participated in EVAP activities at least once. Although the workshops were held near the end of the year, number of participants was much bigger than that of the 3rd Cycle. Participation in this Step depends on farmers' decisions, it should be noted that the results may be biased.

Table 7 Number of respondents for evaluation in Extension Step 7 (4th Cycle)

Farmer Group (4th Cycle)	Number of Respondents (Sample Number)		Number of Beneficiaries (at least one-time participation)			
	Male	Female	Male	Female	Male	Female
Al Khader Grape Farmer Extension Group (Bethlehem)	11	3	14	32	10	42
Janata Livestock Farmer Extension Group (Bethlehem)	11	11	22	73	21	94
Sa'eer Farmer Extension Group (Hebron)	7	3	10	57	18	75
Agriculture Knowledge Leading Group in Halhoul (North Hebron)	1	15	16	33	44	77
Al Hejri Farmer Extension Group (South Hebron)	7	1	8	54	23	77
Yatta Agriculture Innovative Farmer Extension Group (Yatta)	13	0	13	43	15	58
Total	50	33	83	292	131	423

(2) Ratios of Farmers whose major household incomes are from agriculture

Figure below shows ratios of farmers whose major household incomes are from agricultural activities by group. This ratio is 80.7% in total, which is higher than those in other Cycles.

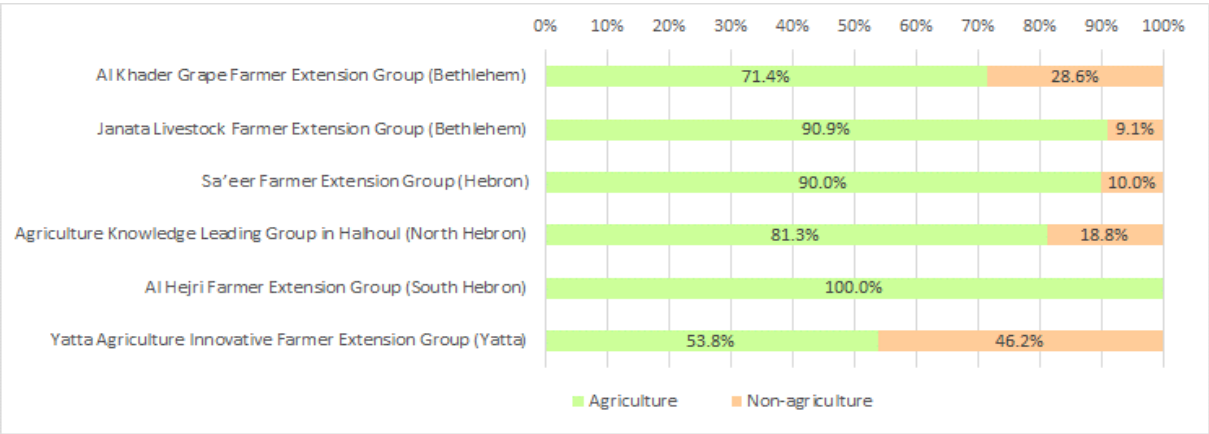


Figure 19 Ratios of farmers whose major household incomes are from agriculture (by group) (4th Cycle)

(3) Change in information collection through EVAP activities

EVAP-2 considers that target farmers could gradually accumulate necessary information for farming through providing necessary information and technologies as well as teach how to obtain them to these farmers by Step of the EVAP Extension Package. Figure below shows the situations of information collection for farming without (before, left) the Project and with (after, right) the Project.

Percentages of farmers who collect or reflect information after the Project have been increased from those before the Project in all types of information. Information of "farm records" and "information of support program" have increased most (62.7% points increase). On the other hand, those of "farm inputs" and "climate and natural condition" have increased least (25.3% points increase each) since most of target farmers (72.3%) have already considered that information for their farm planning even before the Project.

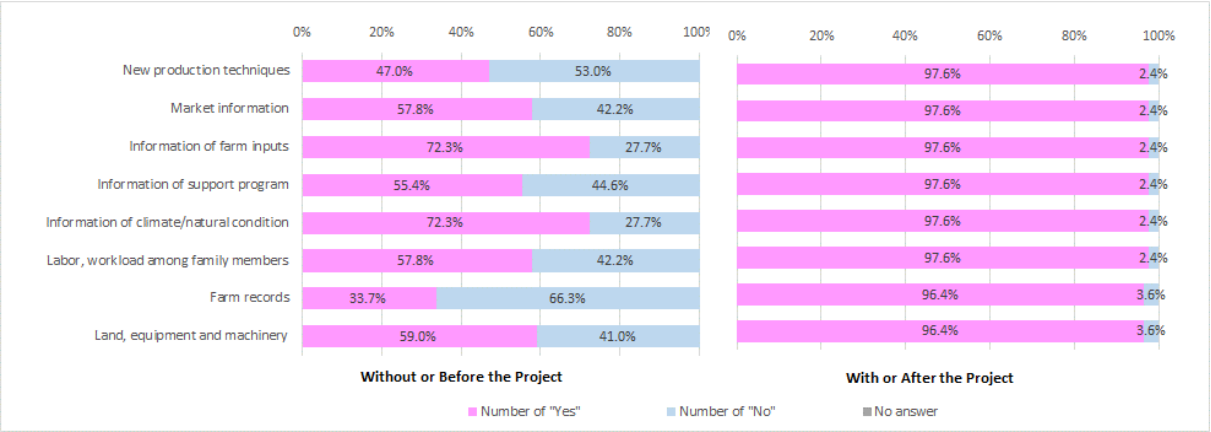


Figure 20 Change in ratio of farmers who collect necessary information for farming (4th Cycle)

(4) Application of information and techniques to farming

EVAP-2 has carried out extension activities through various extension methods such tours (awareness creation tour, market visit, business matching), planning sessions (for study tours, farming improvement plan, training plans), lectures for technical trainings, distribution of training materials/manuals, etc. Figure below shows ratios of farmers who have applied information and techniques obtained from EVAP activities for their farming activities by type of extension method. "EVAP Extension Package" means whole extension activities by EVAP-2. Since training contents are different for each farmer group and cultivated crops are different for each farmer, EVAP-2 has not evaluated introduction rate for each technology in order not to complicate the method from the viewpoint of sustainability. Nealy all have applied techniques and information obtained from EVAP activities for their actual farming.

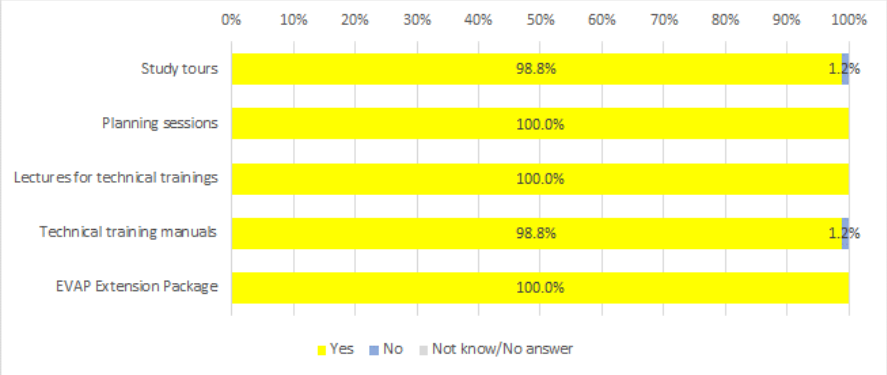


Figure 21 Application of techniques and information to farming practices (4th Cycle)

(5) Improvement of problems through project activities

Respective problems faced by farmers should be improved for enhancing their income from agricultural activities. At the workshops for Extension Step 7, questions on “whether they had faced typical problems regarding crop cultivation and/or livestock” and “whether those problems had been improved /are to be improved through EVAP activities” were asked to participating farmers.

The following figure shows the existence of problems in crop (including grape) cultivation (left graph) and the status of improvement (right graph). More than 70% of the farmers originally had the following problems: (i) "High cost of agricultural inputs" (87.5%), (ii) "Low soil fertility" (83.3%), (iii) "Poor pest management techniques" (83.3%), (iv) "Low fertilizer application technology" (77.1%), (v) "Poor irrigation technique " (77.1%), (vi) "High transportation cost" (75.0%) and (vii) "Low quality of available seedlings" (72.9%). The percentages of farmers who answered that these problems have improved or are expected to be improved were: (i) "High cost of agricultural inputs" 83.3% (78.6%+4.8%), (ii) "Low soil fertility" 95.0% (80.0%+15.0%), (iii) "Poor pest management techniques" 100.0% (95.0%+5.0%), (iv) "Low fertilizer application technology" 97.3% (89.2%+8.1%), (v) "Poor irrigation technique" 94.6% (78.4%+16.2%), (vi) "High transportation cost" 88.9% (80.6%+8.3%) and (vii) "Low quality of available seedlings" 91.4% (77.1%+14.3%).

The situation seems to have improved through market visits, training in pest and disease control techniques (including pruning techniques), training in compost making and fertilizer application techniques, and introduction of joint purchasing of agricultural inputs (seeds, seedlings, pesticides, fertilizers, etc.), all of which were conducted under EVAP-2.

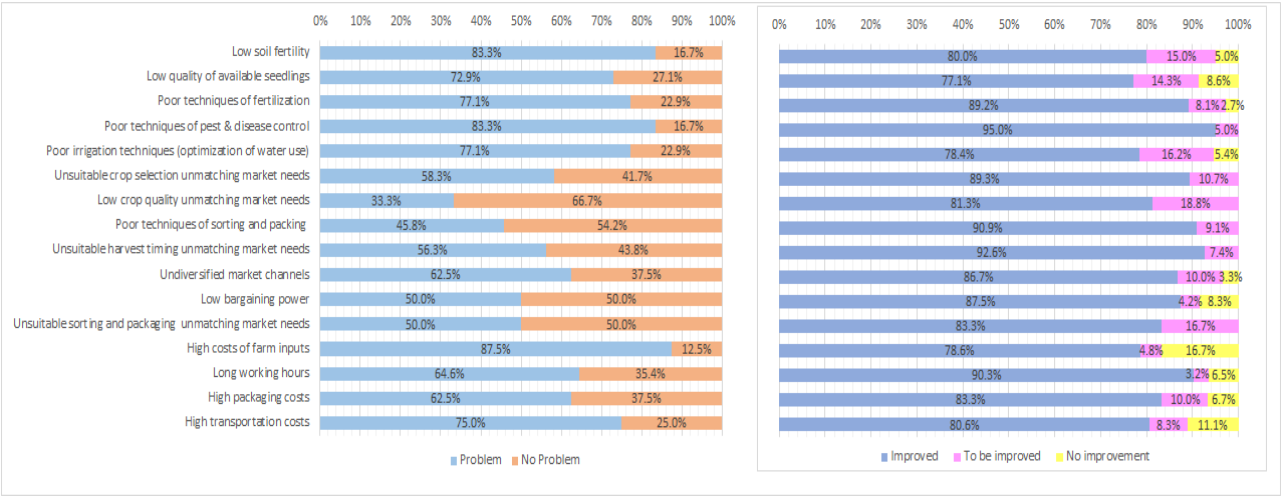


Figure 22 Improvement of problems through project activities (crop cultivation) (4th Cycle)

Similarly, the following figure shows the existence of problems in livestock production (left graph) and the status of improvement (right graph). More than 70% of the farmers had the following problems: (i) "High lamb mortality rate" (88.6%), (ii) "High feed cost" (85.7%), (iii) "High cost of disease control" (82.9%), (iv) "Poor technique of disease control" (77.1%), (v) "Poor technique of fatting" (74.3%), (vi) "Low reproduction rate of ewes" (68.6%), and (vii) "Poor farm management" (68.6%). The percentages of farmers who answered that these problems were improved or expected to be improved were: (i) "High lamb mortality rate" 87.1% (61.3%+25.8%), (ii) "High feed cost" 63.3% (30.7%+33.3%), (iii) "High cost of disease management" 82.8% (31.0%+51.7%)", (iv) “Poor technique of disease control” 100.0% (85.2%+14.8%), (v) “Poor technique of fatting” 88.5% (69.2%+19.2%), (vi) “Low reproduction rate of ewes” 83.3% (50.0%+33.3%) and (vii) “Poor farm management” 91.7% (79.2%+12.5%).

The situation has been improved by the following activities conducted under EVAP-2: visits to good practice farmers in sheep rearing (e.g., isolated rearing of newborn and lambs), visits to livestock pharmaceutical companies, visits to feed companies, training in livestock health and disease management techniques, preparation and distribution of fact sheets on disease symptoms, prevention methods, and effective livestock medicines, and trial of artificial insemination. Although EVAP-2 activities included training in feeding techniques, more than 30% of the farmers still reported that the issue of "high cost of feed" had not improved. This may be because the price for feed is set by the private sector, and therefore it was difficult to improve it sufficiently through EVAP-2 activities alone.

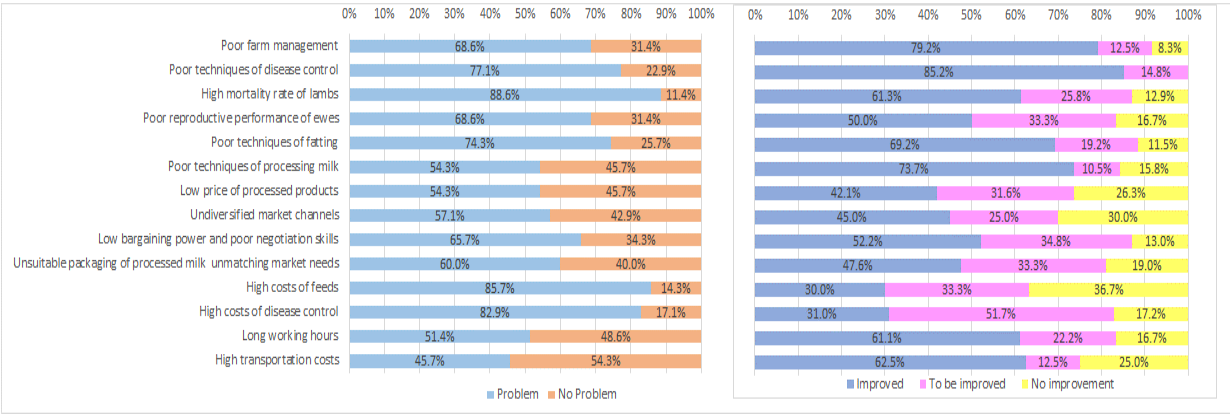


Figure 23 Improvement of problems through project activities (crop cultivation) (4th Cycle)

(6) Change in agriculture income of target farmer households

Table below shows changes in agricultural incomes of target farmers by group. Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP-2 (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP-2 activities (baseline status).

Net agricultural profits with EVAP-2 in total have been increased by 51.74% for 2 years in comparison with those without EVAP-2. Thus, annual increase in agricultural net profits is 23.18%. Some farmer groups have gained very large increase in net profits. This could be thought they include several farmers who had not practiced farming for cashing purpose; thus, their baseline amounts were low.

Table 8 Change in agricultural net profits after/with EVAP-2 by group (4th Cycle)

Farmer Group (4th Cycle)	Total Net Profit (NIS/year) (Baseline)	Total Net Profit (NIS/year) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% (Present/ Baseline)	% (difference)
Al Khader Grape Farmer Extension Group (Bethlehem)	119,390	241,795	14	8,528	17,271	202.53%	+102.53%
Janata Livestock Farmer Extension Group (Bethlehem)	22,775	127,750	22	1,035	5,807	560.92%	+460.92%
Sa'eer Farmer Extension Group (Hebron)	449,900	884,000	10	44,990	88,400	196.49%	+96.49%
Agriculture Knowledge Leading Group in Halhoul (North Hebron)	19,230	67,000	16	1,202	4,188	348.41%	+248.41%
Al Hejri Farmer Extension Group (South Hebron)	1,658,760	2,079,200	8	207,345	259,900	125.35%	+25.35%
Yatta Agriculture Innovative Farmer Extension Group (Yatta)	31,650	92,855	13	2,435	7,143	293.38%	+193.38%
Total	**2,301,705**	**3,492,600**	**83**	**27,731**	**42,080**	**151.74%**	**+51.74%**

(7) Ratios of farmers whose agricultural incomes have increased

Table below shows ratios of farmers whose net agricultural profits have been increased, not been

changed, or been decreased by EVAP-2 activities. 65 farmers (78.3%) in total have gained increase in their net agricultural profits, while 5 famers (6.0%) for no change and 13 farmers (15.7%) for decrease.

Table 9 Ratios of farmers whose net profits have increased (by group) (4th Cycle)

Farmer Group (4th Cycle)	Number of farmers whose net profits increased	Number of farmers whose net profits did not change	Number of farmers whose net profits decreased
Al Khader Grape Farmer Extension Group (Bethlehem)	13	0	1
Janata Livestock Farmer Extension Group (Bethlehem)	16	1	5
Sa'eer Farmer Extension Group (Hebron)	10	0	0
Agriculture Knowledge Leading Group in Halhoul (North Hebron)	13	2	1
Al Hejri Farmer Extension Group (South Hebron)	6	0	2
Yatta Agriculture Innovative Farmer Extension Group (Yatta)	7	2	4
Total	65 (78.3%)	5 (6.0%)	13 (15.7%)

(8) Satisfaction of target farmers on EVAP extension activities

EVAP-2 has carried out extension activities through various extension methods. Figure below shows the results of evaluation on farmers' satisfaction on these methods with 4 grades. Nearly all expressed their satisfaction on all EVAP activities (very satisfied" or "satisfied").

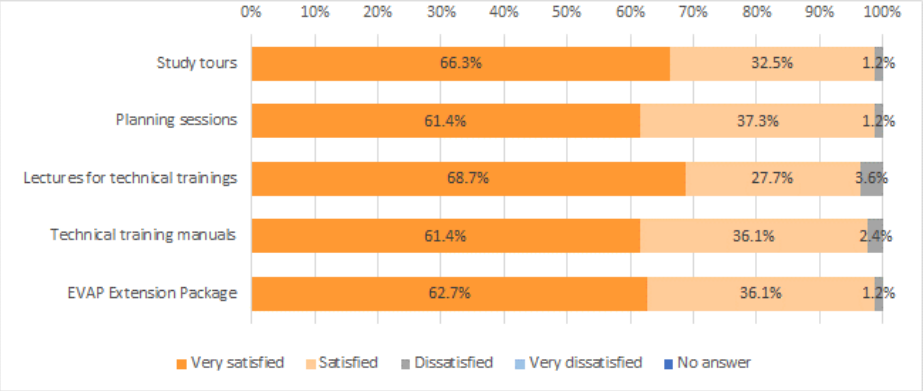


Figure 24 Satisfaction of target farmers on EVAP extension activities (4th Cycle)

(9) Change in relations between extensionists and target farmers

How target farmers evaluate performance of extensionists and their communication situation with extensionists were checked. Regarding explanation by the extensionists in implementing EVAP activities, though 39.8% of respondent farmers answered, "with some difficulties", all answered they understood explanation by the extensionists. Regarding communication with the extensionists, all of them answered that "have had more opportunities to consult with the extensionists after EVAP" and 98.8% of them answered "intend to consult with the extensionists when facing problems". It could be thought that communications between the farmers and extensionists have been facilitated through EVAP activities.

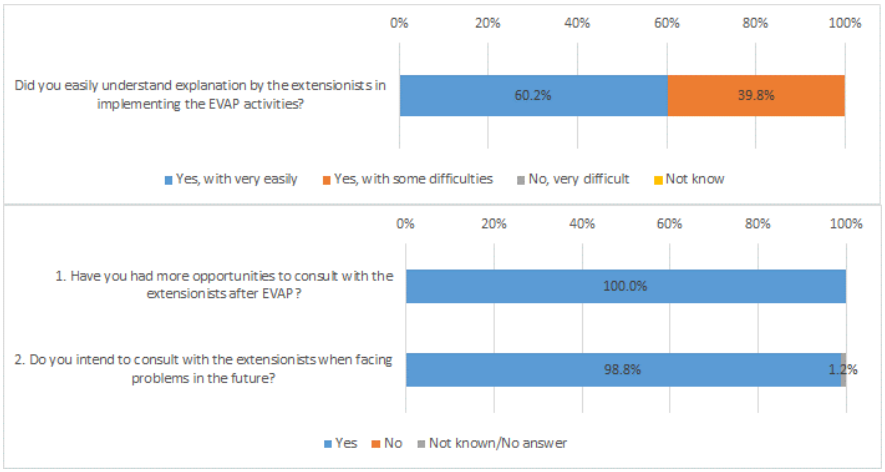


Figure 25 Evaluation of performance of extensionists and change in relations between extensionists and target farmers (4th Cycle)

(10) Change in information collection by gender

It seems that men usually collect information from outside of households due to practices of Muslim societies. Through EVAP activities so far implemented, it was revealed that women usually obtain information from men or women are rarely shared with information in their households, which was regarded as one of the factors preventing improvement of agricultural profits. Thus, EVAP-2 has considered incorporating measures for filling up the gap between men and women on necessary information for farming which will lead to enhancing agricultural profits.

Figure below shows changes in who collect or reflect necessary information for farming through EVAP activities. Ratios of farmers who answered “women collect” or “both women and men collect” have been increased for all kinds of information. The greatest improvement was seen in “reflection of farm records” (increased by 46.4 % points), followed by “market information” (increased by 33.8 % points) and “information of new production techniques” (increased by 33.2 % points).

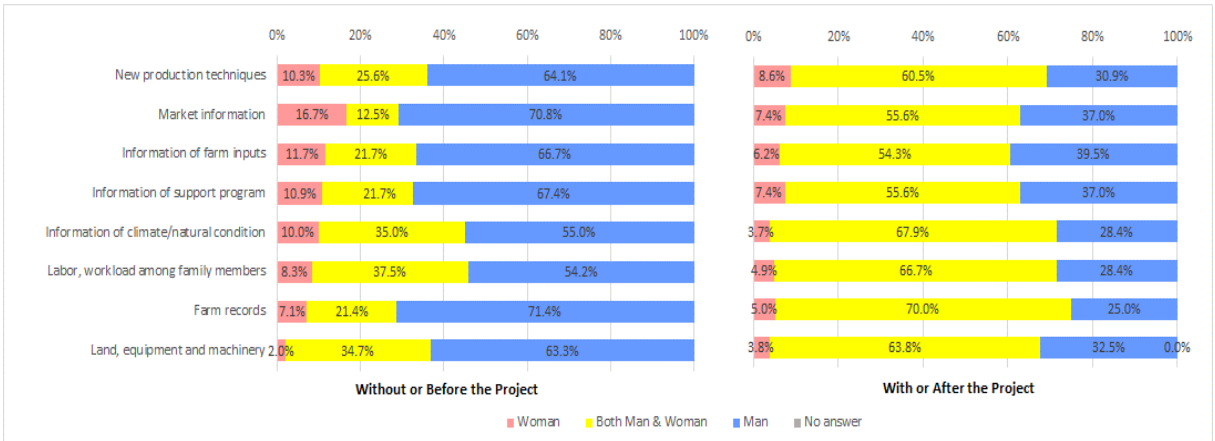


Figure 26 Who in household (men or women) collect necessary information (4th Cycle)

(11) Evaluation of Effectiveness of Gender Consideration in EVAP-2

Questions based on gender viewpoints as follows were asked to target farmers to evaluate effectiveness of gender consideration measures applied for EVAP extension activities.

Questions for Evaluating Effectiveness of Gender Consideration Measures in EVAP2:

Viewpoint (1): Improve access/control to resources (knowledges, technologies, training opportunities, agricultural inputs, etc.) (Asked for female farmers only)

A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?

A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?

A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?

A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?

A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?

Viewpoint (2): Enhance work efficiency and productivities of family members

B-1. Have workloads of family members (particularly female farmers) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?

Viewpoint (3): Facilitate women's involvement in decision-making in family

C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?

C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?

Viewpoint (4): Facilitate gender awareness of male members and local communities

D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?

D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?

Above questions regarding A. were answered by female member, and other questions (B., C., D.) were answered by both male and female members. Figure below shows calculated results of answers from farmers for these questions.

Regarding questions A., all women answered that "they have obtained networks to other farmers, markets, etc. through EVAP activities" (A-4). Nearly all (except one farmer) answered that "they could easily participate in EVAP activities" (A-1), "their opinions were appropriately taken and reflected to by DOA facilitators" (A-2) and "they could obtain necessary information/knowledge/skills through EVAP activities" (A-3). It could be thought that gender consideration measures taken by EVAP have facilitated women's active participation in activities and access to resources (information, knowledge, and skills).

Regarding other questions, 89.2% of respondents answered, "they have had more communications with other family members for improving their farming activities" (D-1). and 88.0% of them answered "they shared information provided by EVAP with other family members" (C-1). In implementing EVAP activities, DOA extensionists and EVAP-2 Team repeatedly requested participating farmers to share the information provided by EVAP with other family members. This could be thought to lead to the answers of C-1 and D-1.

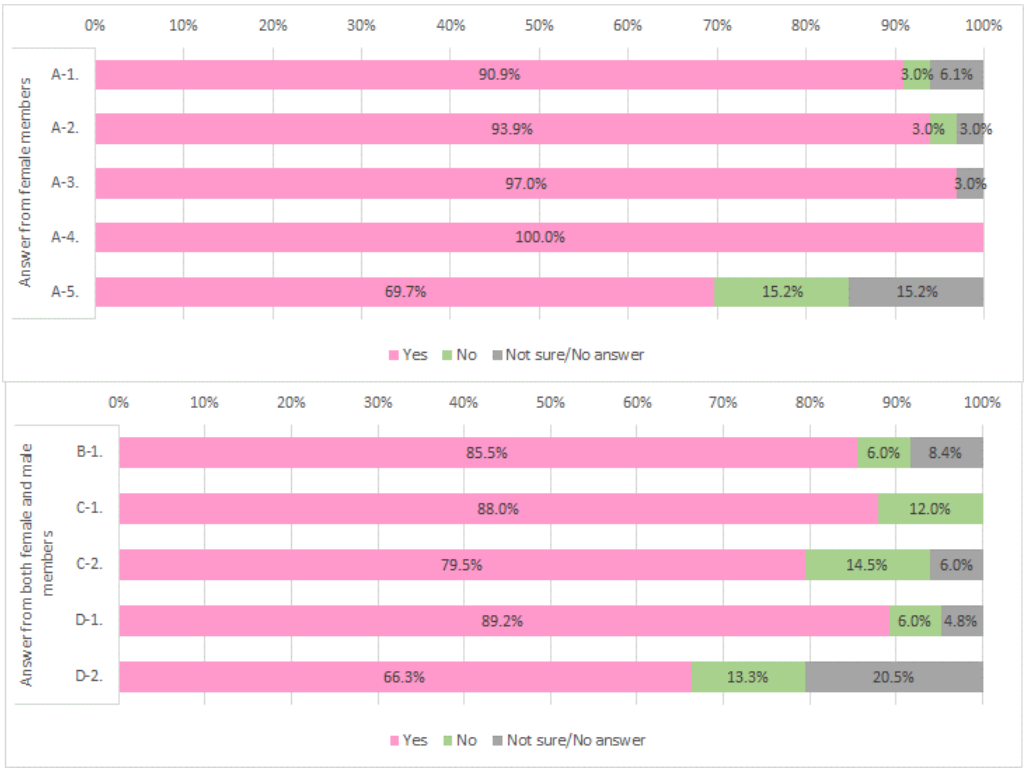


Figure 27 Evaluation of effectiveness of gender consideration in EVAP-2 (4th Cycle)

Attachment 6-6

1. Summary of Net Profits of 1st, 2nd 3rd and 4th Cycle Farmer Groups

Cycle (Year)	ID	Farmer Group	Total Net Profit (NIS/year/Group) (Baseline)	Total Net Profit (NIS/year/Group) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% in 2 years (Present/Baseline)
1st Cycle Farmer Group (2017-2018)	(1-1)	Mother's School Association in Al Badhan (Nablus)	6,233	27,685	15	416	1,846	444.2%
	(1-2)	Frosh Beit Dajan Cooperative Association (Nablus)	348,000	462,460	8	43,500	57,808	132.9%
	(1-3)	Aqqaba Women Extension Sub-group (Tubas)	43,100	72,340	9	4,789	8,038	167.8%
	(1-4)	Bardala Women Extension Group (Tubas)	62,000	86,000	11	5,636	7,818	138.7%
	(1-5)	Al Mussafah Extension Sub-group (Jericho)	161,200	250,750	6	26,867	41,792	155.6%
	(1-6)	Jiftlik Farmer Extension Group (Jericho)	142,700	216,184	10	14,270	21,618	151.5%
	Sub-total		**763,233**	**1,115,419**	**59**	**12,936**	**18,905**	**146.1%**
2nd Cycle Farmer Group (2018-2019)	(2-1)	Al-Izab Farmer Extension Group (Qalqilia)	176,660	354,830	11	16,060	32,257	200.9%
	(2-2)	Qalqilia Livestock Extension Group (Qalqilia)	741,340	1,060,390	11	67,395	96,399	143.0%
	(2-4)	Saida Cooperative Association for Processing and Marketing of Rural Products	12,600	54,500	15	840	3,633	432.5%
	(2-5)	Maithalon and Sanor Farmer Extension Group (Jenin)	13,090	57,130	9	1,454	6,348	436.4%
	(2-6)	Qabatiya Farmer Extension Group (Jenin)	193,750	303,325	10	19,375	30,333	156.6%
	Sub-total		**1,137,440**	**1,830,175**	**56**	**20,311**	**32,682**	**160.9%**
3rd Cycle Farmer Group (2019-2020)	(3-1)	Dier Ballout Women Farmer Extension Group (Salfit)	24,645	47,975	9	2,738	5,331	194.7%
	(3-2)	Salfit Olive Farmer Extension Group (Salfit)	23,982	28,562	9	2,665	3,174	119.1%
	(3-3)	Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	19,415	23,570	7	2,774	3,367	121.4%
	(3-4)	Al Mughayier Livestock Farmer Extension Group (Ramallah)	136,192	163,750	7	19,456	23,393	120.2%
	(3-5)	Beit Doqqo Grape Farmer Extension Group (Jerusalem)	98,490	151,270	7	14,070	21,610	153.6%
	(3-6)	Al Sawahreh Livestock Farmer Extension Group (Jerusalem)	190,200	298,150	9	21,133	33,128	156.8%
	Sub-total		**492,924**	**713,277**	**48**	**10,269**	**14,860**	**144.7%**
4th Cycle Farmer Group (2020-2021)	(4-1)	Al Khader Grape Farmer Extension Group (Bethlehem)	119,390	241,795	14	8,528	17,271	202.5%
	(4-2)	Janata Livestock Farmer Extension Group (Bethlehem)	22,775	127,750	22	1,035	5,807	560.9%
	(4-3)	Sa'eer Farmer Extension Group (Hebron)	449,900	884,000	10	44,990	88,400	196.5%
	(4-4)	Agriculture Knowledge Leading Group in Halhoul (North Hebron)	19,230	67,000	16	1,202	4,188	348.4%
	(4-5)	Al Hejri Farmer Extension Group (South Hebron)	1,658,760	2,079,200	8	207,345	259,900	125.3%
	(4-6)	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	31,650	92,855	13	2,435	7,143	293.4%
	Sub-total		**2,301,705**	**3,492,600**	**83**	**27,731**	**42,080**	**151.7%**
Total			**4,695,302**	**7,151,471**	**246**	**19,087**	**29,071**	**152.3%**

Note: One of the 2nd Cycle Farmer Group dropped out because the equipment was not provided, and Extension Step 7: Profitability Assessment could not be carried out.

2. Summary of Net Profits of 1st, 2nd, 3rd and 4th Cycle Farmer Groups (by Type of Farmer Group)

1) Mixed Group

Cycle (Year)	ID	Farmer Group	Total Net Profit (NIS/year/Group) (Baseline)	Total Net Profit (NIS/year/Group) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% in 2 years (Present/Baseline)
2nd Cycle Farmer Group (2018-2019)	(2-5)	Maithalon and Sanor Farmer Extension Group (Jenin)	13,090	57,130	9	1,454	6,348	436.4%
	Sub-total		**13,090**	**57,130**	**9**	**1,454**	**6,348**	**436.4%**
3rd Cycle Farmer Group (2019-2020)	(3-2)	Salfit Olive Farmer Extension Group (Salfit)	23,982	28,562	9	2,665	3,174	119.1%
	(3-5)	Beit Doqqo Grape Farmer Extension Group (Jerusalem)	98,490	151,270	7	14,070	21,610	153.6%
	(3-6)	Al Sawahreh Livestock Farmer Extension Group (Jerusalem)	190,200	298,150	9	21,133	33,128	156.8%
	Sub-total		**312,672**	**477,982**	**25**	**12,507**	**19,119**	**152.9%**
4th Cycle Farmer Group (2020-2021)	(4-1)	Al Khader Grape Farmer Extension Group (Bethlehem)	119,390	241,795	14	8,528	17,271	202.5%
	(4-2)	Janata Livestock Farmer Extension Group (Bethlehem)	22,775	127,750	22	1,035	5,807	560.9%
	(4-3)	Sa'eer Farmer Extension Group (Hebron)	449,900	884,000	10	44,990	88,400	196.5%
	(4-4)	Agriculture Knowledge Leading Group in Halhoul (North Hebron)	19,230	67,000	16	1,202	4,188	348.4%
	(4-5)	Al Hejri Farmer Extension Group (South Hebron)	1,658,760	2,079,200	8	207,345	259,900	125.3%
	(4-6)	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	31,650	92,855	13	2,435	7,143	293.4%
	Sub-total		**2,301,705**	**3,492,600**	**83**	**27,731**	**42,080**	**151.7%**
Total			**2,627,467**	**4,027,712**	**117**	**22,457**	**34,425**	**153.3%**

2) Male Group

Cycle (Year)	ID	Farmer Group	Total Net Profit (NIS/year/Group) (Baseline)	Total Net Profit (NIS/year/Group) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% in 2 years (Present/Baseline)
1st Cycle Farmer Group (2017-2018)	(1-2)	Frosh Beit Dajan Cooperative Association (Nablus)	348,000	462,460	8	43,500	57,808	132.9%
	(1-5)	Al Mussafah Extension Sub-group (Jericho)	161,200	250,750	6	26,867	41,792	155.6%
	(1-6)	Jiftlik Farmer Extension Group (Jericho)	142,700	216,184	10	14,270	21,618	151.5%
	Sub-total		**651,900**	**929,394**	**24**	**27,163**	**38,725**	**142.6%**
2nd Cycle Farmer Group (2018-2019)	(2-1)	Al-Izab Farmer Extension Group (Qalqilia)	176,660	354,830	11	16,060	32,257	200.9%
	(2-2)	Qalqilia Livestock Extension Group (Qalqilia)	741,340	1,060,390	11	67,395	96,399	143.0%
	(2-6)	Qabatiya Farmer Extension Group (Jenin)	193,750	303,325	10	19,375	30,333	156.6%
	Sub-total		**1,111,750**	**1,718,545**	**32**	**34,742**	**53,705**	**154.6%**
3rd Cycle Farmer Group (2019-2020)	(3-3)	Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	19,415	23,570	7	2,774	3,367	121.4%
	(3-4)	Al Mughayier Livestock Farmer Extension Group (Ramallah)	136,192	163,750	7	19,456	23,393	120.2%
	Sub-total		**155,607**	**187,320**	**14**	**11,115**	**13,380**	**120.4%**
Total			**1,919,257**	**2,835,259**	**70**	**27,418**	**40,504**	**147.7%**

3) Female Group

Cycle (Year)	ID	Farmer Group	Total Net Profit (NIS/year/Group) (Baseline)	Total Net Profit (NIS/year/Group) (Present)	Number of Sample Households (HH)	Average Net Profit (NIS/year/HH) (Baseline)	Average Net Profit (NIS/year/HH) (Present)	% in 2 years (Present/Baseline)
1st Cycle Farmer Group (2017-2018)	(1-1)	Mother's School Association in Al Badhan (Nablus)	6,233	27,685	15	416	1,846	444.2%
	(1-3)	Aqqaba Women Extension Sub-group (Tubas)	43,100	72,340	9	4,789	8,038	167.8%
	(1-4)	Bardala Women Extension Group (Tubas)	62,000	86,000	11	5,636	7,818	138.7%
	Sub-total		**111,333**	**186,025**	**35**	**3,181**	**5,315**	**167.1%**
2nd Cycle Farmer Group (2018-2019)	(2-4)	Saida Cooperative Association for Processing and Marketing of Rural Products	12,600	54,500	15	840	3,633	432.5%
	Sub-total		**12,600**	**54,500**	**15**	**840**	**3,633**	**432.5%**
3rd Cycle Farmer Group (2019-2020)	(3-1)	Dier Ballout Women Farmer Extension Group (Salfit)	24,645	47,975	9	2,738	5,331	194.7%
	Sub-total		**24,645**	**47,975**	**9**	**2,738**	**5,331**	**194.7%**
Total			**148,578**	**288,500**	**59**	**2,518**	**4,890**	**194.2%**

Attachment 6-7

1. Summary of Sales and Production Costs of 1st, 2nd, 3rd and 4th Cycle Farmer Groups

Cycle (Year)	ID	Farmer Group	Sales (NIS/year/Group)		Total Production Costs (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/Group)		Average Production Costs (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)	% of Total Production Costs in 2 years (Present/Baseline)	Net Profit Ratio (Sale - Production Cost) / Sale		
			(Baseline)	(Present)	(Baseline)	(Present)		(Baseline)	(Present)	(Baseline)	(Present)			(Baseline)	(Present)	Difference (Percentage Point)
1st Cycle Farmer Group (2017-2018)	(1-1)	Mother's School Association in Al Badhan (Nablus)	83,960	96,165	17,192	22,944	15	5,597	6,411	1,146	1,530	114.5%	133.5%	79.5%	76.1%	-3.4%
	(1-2)	Frosh Beit Dajan Cooperative Association (Nablus)	544,000	626,400	392,000	220,000	8	68,000	78,300	49,000	27,500	115.1%	56.1%	27.9%	64.9%	36.9%
	(1-3)	Aqqaba Women Extension Sub-group (Tubas)	72,900	87,540	39,100	24,350	9	8,100	9,727	4,344	2,706	120.1%	62.3%	46.4%	72.2%	25.8%
	(1-4)	Bardala Women Extension Group (Tubas)	92,500	155,900	37,500	44,250	11	8,409	14,173	3,409	4,023	168.5%	118.0%	59.5%	71.6%	12.2%
	(1-5)	Al Mussafah Extension Sub-group (Jericho)	260,500	351,750	130,000	104,400	6	43,417	58,625	21,667	17,400	135.0%	80.3%	50.1%	70.3%	20.2%
	(1-6)	Jiftlik Farmer Extension Group (Jericho)	909,500	707,350	312,500	208,596	10	90,950	70,735	31,250	20,860	77.8%	66.8%	65.6%	70.5%	4.9%
	Sub-total		**1,963,360**	**2,025,105**	**928,292**	**624,540**	**59**	**33,277**	**34,324**	**15,734**	**10,585**	**103.1%**	**67.3%**	**52.7%**	**69.2%**	**16.4%**
2nd Cycle Farmer Group (2018-2019)	(2-1)	Al-Izab Farmer Extension Group (Qalqiliya)	296,660	574,050	120,000	155,720	11	26,969	52,186	10,909	14,156	193.5%	129.8%	59.5%	72.9%	13.3%
	(2-2)	Qalqiliya Livestock Extension Group (Qalqiliya)	1,369,200	1,779,525	627,860	719,135	11	124,473	161,775	57,078	65,376	130.0%	114.5%	54.1%	59.6%	5.4%
	(2-4)	Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarm)	55,000	90,700	42,400	36,200	15	3,667	6,047	2,827	2,413	164.9%	85.4%	22.9%	60.1%	37.2%
	(2-5)	Maithalon and Sanor Farmer Extension Group (Jenin)	19,600	79,400	7,010	26,520	9	2,178	8,822	779	2,947	405.1%	378.3%	64.2%	66.6%	2.4%
	(2-6)	Qabatiya Farmer Extension Group (Jenin)	164,500	337,800	76,000	97,475	10	16,450	33,780	7,600	9,748	205.3%	128.3%	53.8%	71.1%	17.3%
	Sub-total		**1,904,960**	**2,861,475**	**873,270**	**1,035,050**	**56**	**34,017**	**51,098**	**15,594**	**18,483**	**150.2%**	**118.5%**	**54.2%**	**63.8%**	**9.7%**
3rd Cycle Farmer Group (2019-2020)	(3-1)	Dier Ballout Women Farmer Extension Group (Salfit)	34,850	57,550	10,205	9,575	9	3,872	6,394	1,134	1,064	165.1%	93.8%	70.7%	83.4%	12.6%
	(3-2)	Salfit Olive Farmer Extension Group (Salfit)	57,591	68,590	33,609	40,028	9	6,399	7,621	3,734	4,448	119.1%	119.1%	41.6%	41.6%	0.0%
	(3-3)	Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	25,263	30,670	5,848	7,100	7	3,609	4,381	835	1,014	121.4%	121.4%	76.9%	76.9%	0.0%
	(3-4)	Al Mughayier Livestock Farmer Extension Group (Ramallah)	408,492	448,200	272,300	284,450	7	58,356	64,029	38,900	40,636	109.7%	104.5%	33.3%	36.5%	3.2%
	(3-5)	Beit Doqqo Grape Farmer Extension Group (Jerusalem)	120,190	196,070	22,700	58,300	7	17,170	28,010	3,243	8,329	163.1%	256.8%	81.1%	70.3%	-10.8%
	(3-6)	Al Sawahreh Livestock Farmer Extension Group (Jerusalem)	597,700	683,150	407,500	385,000	9	66,411	75,906	45,278	42,778	114.3%	94.5%	31.8%	43.6%	11.8%
	Sub-total		**1,244,087**	**1,484,230**	**752,163**	**784,453**	**48**	**25,918**	**30,921**	**15,670**	**16,343**	**119.3%**	**104.3%**	**39.5%**	**47.1%**	**7.6%**
4th Cycle Farmer Group (2020-2021)	(4-1)	Al Khader Grape Farmer Extension Group (Bethlehem)	211,190	334,895	91,800	93,100	14	15,085	23,921	6,557	6,650	158.6%	101.4%	56.5%	72.2%	15.7%
	(4-2)	Janata Livestock Farmer Extension Group (Bethlehem)	499,975	790,250	477,200	662,500	22	22,726	35,920	21,691	30,114	158.1%	138.8%	4.6%	16.2%	11.6%
	(4-3)	Sa'eer Farmer Extension Group (Hebron)	557,800	1,065,900	107,900	181,900	10	55,780	106,590	10,790	18,190	191.1%	168.6%	80.7%	82.9%	2.3%
	(4-4)	Agriculture Knowledge Leading Group in Halhoul (North Hebron)	36,730	110,900	17,500	43,900	16	2,296	6,931	1,094	2,744	301.9%	250.9%	52.4%	60.4%	8.1%
	(4-5)	Al Hejri Farmer Extension Group (South Hebron)	2,633,160	2,876,400	974,400	797,200	8	329,145	359,550	121,800	99,650	109.2%	81.8%	63.0%	72.3%	9.3%
	(4-6)	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	714,700	1,098,430	683,050	1,005,575	13	54,977	84,495	52,542	77,352	153.7%	147.2%	4.4%	8.5%	4.0%
	Sub-total		**4,653,555**	**6,276,775**	**2,351,850**	**2,784,175**	**83**	**56,067**	**75,624**	**28,336**	**33,544**	**134.9%**	**118.4%**	**49.5%**	**55.6%**	**6.2%**
Total			**9,765,962**	**12,647,585**	**4,905,575**	**5,228,218**	**246**	**39,699**	**51,413**	**19,941**	**21,253**	**129.5%**	**106.6%**	**49.8%**	**58.7%**	**8.9%**

Note: One of the 2nd Cycle Farmer Group dropped out because the equipment was not provided, and Extension Step 7: Profitability Assessment could not be carried out.

2. Summary of Sales and Production Costs of 1st, 2nd, 3rd and 4th Cycle Farmer Groups (by Type of Farmer Group)

1) Mixed Group

Cycle (Year)	ID	Farmer Group	Sales (NIS/year/Group)		Total Production Costs (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/Group)		Average Production Costs (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)	% of Total Production Costs in 2 years (Present/Baseline)	Net Profit Ratio (Sale - Production Cost) / Sale		
			(Baseline)	(Present)	(Baseline)	(Present)		(Baseline)	(Present)	(Baseline)	(Present)			(Baseline)	(Present)	Difference (Percentage Point)
2nd Cycle Farmer Group (2018-2019)	(2-5)	Maithalon and Sanor Farmer Extension Group (Jenin)	19,600	79,400	7,010	26,520	9	2,178	8,822	779	2,947	405.1%	378.3%	64.2%	66.6%	2.4%
	Sub-total		**19,600**	**79,400**	**7,010**	**26,520**	**9**	**2,178**	**8,822**	**779**	**2,947**	**405.1%**	**378.3%**	**64.2%**	**66.6%**	**2.4%**
3rd Cycle Farmer Group (2019-2020)	(3-2)	Salfit Olive Farmer Extension Group (Salfit)	57,591	68,590	33,609	40,028	9	6,399	7,621	3,734	4,448	119.1%	119.1%	41.6%	41.6%	0.0%
	(3-5)	Beit Doqqo Grape Farmer Extension Group (Jerusalem)	120,190	196,070	22,700	58,300	7	17,170	28,010	3,243	8,329	163.1%	256.8%	81.1%	70.3%	-10.8%
	(3-6)	Al Sawahreh Livestock Farmer Extension Group (Jerusalem)	597,700	683,150	407,500	385,000	9	66,411	75,906	45,278	42,778	114.3%	94.5%	31.8%	43.6%	11.8%
	Sub-total		**775,481**	**947,810**	**463,809**	**483,328**	**25**	**31,019**	**37,912**	**18,552**	**19,333**	**122.2%**	**104.2%**	**40.2%**	**49.0%**	**8.8%**
4th Cycle Farmer Group (2020-2021)	(4-1)	Al Khader Grape Farmer Extension Group (Bethlehem)	211,190	334,895	91,800	93,100	14	15,085	23,921	6,557	6,650	158.6%	101.4%	56.5%	72.2%	15.7%
	(4-2)	Janata Livestock Farmer Extension Group (Bethlehem)	499,975	790,250	477,200	662,500	22	22,726	35,920	21,691	30,114	158.1%	138.8%	4.6%	16.2%	11.6%
	(4-3)	Sa'eer Farmer Extension Group (Hebron)	557,800	1,065,900	107,900	181,900	10	55,780	106,590	10,790	18,190	191.1%	168.6%	80.7%	82.9%	2.3%
	(4-4)	Agriculture Knowledge Leading Group in Halhoul (North Hebron)	36,730	110,900	17,500	43,900	16	2,296	6,931	1,094	2,744	301.9%	250.9%	52.4%	60.4%	8.1%
	(4-5)	Al Hejri Farmer Extension Group (South Hebron)	2,633,160	2,876,400	974,400	797,200	8	329,145	359,550	121,800	99,650	109.2%	81.8%	63.0%	72.3%	9.3%
	(4-6)	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	714,700	1,098,430	683,050	1,005,575	13	54,977	84,495	52,542	77,352	153.7%	147.2%	4.4%	8.5%	4.0%
	Sub-total		**4,653,555**	**6,276,775**	**2,351,850**	**2,784,175**	**83**	**56,067**	**75,624**	**28,336**	**33,544**	**134.9%**	**118.4%**	**49.5%**	**55.6%**	**6.2%**
Total			**5,448,636**	**7,303,985**	**2,822,669**	**3,294,023**	**117**	**46,570**	**62,427**	**24,125**	**28,154**	**134.1%**	**116.7%**	**48.2%**	**54.9%**	**6.7%**

2) Male Group

Cycle (Year)	ID	Farmer Group	Sales (NIS/year/Group)		Total Production Costs (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/Group)		Average Production Costs (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)	% of Total Production Costs in 2 years (Present/Baseline)	Net Profit Ratio (Sale - Production Cost) / Sale		
			(Baseline)	(Present)	(Baseline)	(Present)		(Baseline)	(Present)	(Baseline)	(Present)			(Baseline)	(Present)	Difference (Percentage Point)
1st Cycle Farmer Group (2017-2018)	(1-2)	Frosh Beit Dajan Cooperative Association (Nablus)	544,000	626,400	392,000	220,000	8	68,000	78,300	49,000	27,500	115.1%	56.1%	27.9%	64.9%	36.9%
	(1-5)	Al Mussafah Extension Sub-group (Jericho)	260,500	351,750	130,000	104,400	6	43,417	58,625	21,667	17,400	135.0%	80.3%	50.1%	70.3%	20.2%
	(1-6)	Jiftlik Farmer Extension Group (Jericho)	909,500	707,350	312,500	208,596	10	90,950	70,735	31,250	20,860	77.8%	66.8%	65.6%	70.5%	4.9%
	Sub-total		**1,714,000**	**1,685,500**	**834,500**	**532,996**	**24**	**71,417**	**70,229**	**34,771**	**22,208**	**98.3%**	**63.9%**	**51.3%**	**68.4%**	**17.1%**
2nd Cycle Farmer Group (2018-2019)	(2-1)	Al-Izab Farmer Extension Group (Qalqiliya)	296,660	574,050	120,000	155,720	11	26,969	52,186	10,909	14,156	193.5%	129.8%	59.5%	72.9%	13.3%
	(2-2)	Qalqiliya Livestock Extension Group (Qalqiliya)	1,369,200	1,779,525	627,860	719,135	11	124,473	161,775	57,078	65,376	130.0%	114.5%	54.1%	59.6%	5.4%
	(2-6)	Qabatiya Farmer Extension Group (Jenin)	164,500	337,800	76,000	97,475	10	16,450	33,780	7,600	9,748	205.3%	128.3%	53.8%	71.1%	17.3%
	Sub-total		**1,830,360**	**2,691,375**	**823,860**	**972,330**	**32**	**57,199**	**84,105**	**25,746**	**30,385**	**147.0%**	**118.0%**	**55.0%**	**63.9%**	**8.9%**
3rd Cycle Farmer Group (2019-2020)	(3-3)	Kharbatheh Musbah Olive Farmer Extension Group (Ramallah)	25,263	30,670	5,848	7,100	7	3,609	4,381	835	1,014	121.4%	121.4%	76.9%	76.9%	0.0%
	(3-4)	Al Mughayier Livestock Farmer Extension Group (Ramallah)	408,492	448,200	272,300	284,450	7	58,356	64,029	38,900	40,636	109.7%	104.5%	33.3%	36.5%	3.2%
	Sub-total		**433,755**	**478,870**	**278,148**	**291,550**	**14**	**30,983**	**34,205**	**19,868**	**20,825**	**110.4%**	**104.8%**	**35.9%**	**39.1%**	**3.2%**
Total			**3,978,115**	**4,855,745**	**1,936,508**	**1,796,876**	**70**	**56,830**	**69,368**	**27,664**	**25,670**	**122.1%**	**92.8%**	**51.3%**	**63.0%**	**11.7%**

3) Female Group

Cycle (Year)	ID	Farmer Group	Sales (NIS/year/Group)		Total Production Costs (NIS/year/Group)		Number of Sample Households (HH)	Average Sales (NIS/year/Group)		Average Production Costs (NIS/year/HH)		% of Total Sales in 2 years (Present/Baseline)	% of Total Production Costs in 2 years (Present/Baseline)	Net Profit Ratio (Sale - Production Cost) / Sale		
			(Baseline)	(Present)	(Baseline)	(Present)		(Baseline)	(Present)	(Baseline)	(Present)			(Baseline)	(Present)	Difference (Percentage Point)
1st Cycle Farmer Group (2017-2018)	(1-1)	Mother's School Association in Al Badhan (Nablus)	83,960	96,165	17,192	22,944	15	5,597	6,411	1,146	1,530	114.5%	133.5%	79.5%	76.1%	-3.4%
	(1-3)	Aqqaba Women Extension Sub-group (Tubas)	72,900	87,540	39,100	24,350	9	8,100	9,727	4,344	2,706	120.1%	62.3%	46.4%	72.2%	25.8%
	(1-4)	Bardala Women Extension Group (Tubas)	92,500	155,900	37,500	44,250	11	8,409	14,173	3,409	4,023	168.5%	118.0%	59.5%	71.6%	12.2%
	Sub-total		**249,360**	**339,605**	**93,792**	**91,544**	**35**	**7,125**	**9,703**	**2,680**	**2,616**	**136.2%**	**97.6%**	**62.4%**	**73.0%**	**10.7%**
2nd Cycle Farmer Group (2018-2019)	(2-4)	Saida Cooperative Association for Processing and Marketing of Rural Products (Tulkarm)	55,000	90,700	42,400	36,200	15	3,667	6,047	2,827	2,413	164.9%	85.4%	22.9%	60.1%	37.2%
	Sub-total		**55,000**	**90,700**	**42,400**	**36,200**	**15**	**3,667**	**6,047**	**2,827**	**2,413**	**164.9%**	**85.4%**	**22.9%**	**60.1%**	**37.2%**
3rd Cycle Farmer Group (2019-2020)	(3-1)	Dier Ballout Women Farmer Extension Group (Salfit)	34,850	57,550	10,205	9,575	9	3,872	6,394	1,134	1,064	165.1%	93.8%	70.7%	83.4%	12.6%
	Sub-total		**34,850**	**57,550**	**10,205**	**9,575**	**9**	**3,872**	**6,394**	**1,134**	**1,064**	**165.1%**	**93.8%**	**70.7%**	**83.4%**	**12.6%**
Total			**339,210**	**487,855**	**146,397**	**137,319**	**59**	**5,749**	**8,269**	**2,481**	**2,327**	**143.8%**	**93.8%**	**56.8%**	**71.9%**	**15.0%**

Attachment 6-8

To: The Chief Representative, JICA Palestine Office

PROJECT MONITORING SHEETS

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Palestine

Version 7

Date of Submission: 2 October 2019

Salaheddin Al-Baba
Project Manager
General Directorate of Agriculture Extension and Rural Development
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for 齋川 純子
Tomoki Nakamura
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ABBREVIATIONS

C/P	Counterpart
DOA	District of Agriculture
-	Dunum (land unit, 1 dunum=approx. 900m2)
EP	Extension Package
EVAP	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 1)
EVAP Phase 2	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)
FAO	Food and Agriculture Organization
GDoERD	General Directorate of Extension and Rural Development
Global GAP	Global Good Agricultural Practice
GS	Gaza Strip
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
MOA	Ministry of Agriculture
M/M	Minutes of Meetings
NARC	National Agriculture Research Center
NIS	New Israeli Shekel
NGO	Non-Governmental Organization
ODA	Official Development Assistance
PA	Palestinian Authority
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussion
SHEP	Smallholder Horticulture Empowerment Program
SMS	Subject Matter Specialist

I. Summary

1. Progress

1.1. Progress of Input

Table 1 Inputs – Japanese side

Inputs	Plan (PDM Ver. 3)	Actual (Aug. 2016~Aug. 2019)
(1) Experts	123.5 man-months in total 1. Chief Advisor/Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production 6. Animal husbandry 7. Water-saving/Water use techniques 8. Marketing 9. Training materials development 10. Monitoring/Planning and reporting system development	Period 1 (Aug. 2016~Apr. 2018): 57.32 man-months in total 1. Chief Advisor/ Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2) 7. Animal husbandry 8. Water-saving/Water use techniques 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development Period 2 (Jun. 2018~ Aug. 2019): 36.43 man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Veterinary/ Animal disease diagnosis 8. Water-saving/Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development 12. Training in Japan Period 3 (Sep. 2019~): 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Veterinary/ Animal disease diagnosis 6. Training materials development 7. Monitoring/Planning and reporting system development 8. Training in Japan
(2) Training in Japan/ third	Training in Japan: 2 times	- 1st training in Japan was held 16th- 27th October 2018 (orientation session was held at MOA HQ on 10th Oct.) with following contents. Nine C/Ps in total (GDoERD,

Inputs	Plan (PDM Ver. 3)	Actual (Aug. 2016~Aug. 2019)
countries		Jericho, Nablus, Tubas, Jenin, Tulkarem, Qalqiliya DOAs) participated in this training. Venue / Contents JICA Tsukuba: - Lecture on agricultural extension system in Japan: critical points, case of wide network among extension agents, etc. - Lecture on "toward 6th industry": history of agro-processing industries in Japan and their issues, etc. Nagano Prefecture: - Visit to vegetable/flower experimental and research station. - Lecture on agricultural extension activities: outlines, good examples, monitoring methods, issues and countermeasures, etc. - Lecture on countermeasures for damages by wild boars. - Visit to a direct selling shop of agricultural products, JA's colleting/shipping facility, value added activities by broccoli producing farmer, and agro-processing activities by a female farmer group. Chiba Prefecture: - Visit to i) value added activities by green onion producing farmer, tomato producing farmer and radish producing farmer, ii) a dairy farm for tourism, and iii) a direct selling shop (*"michi no eki* (roadside shop)"). - Lecture on human resources development of extension agents and production center of green onion. JICA HQ: - Courtesy visit: introduction of assistance activities by JICA toward MOA in Palestine, etc. Permanent General Mission of Palestine: - Courtesy visit: explanation of the training schedule and its progress and outputs, etc.
(3) Equipment	Vehicles Procurement of vehicles for DOAs of the 3rd cycle and later will be examine and decided later. Other equipment to be agreed upon at a later stage in consideration of needs.	- 2 vehicles (minibus and 4WD pickup truck) were procured in Nov. 2017. These vehicles are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. - 4 digital cameras were respectively provided to Mass Media Dept., DOAs of the 1st Cycle DOAs (Jericho, Nablus, Tubas) in Apr. 2017. Additional 3 cameras were given to the 2nd Cycle DOAs (Jenin, Tulkarem, Qalqilia) in Jul. 2017. - A color printer was provided to GDoERD in Jun. 2017. - A notebook PC was provided to GDoERD in Sep. 2017. - Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. - 3 digital cameras were given to the 3rd Cycle DOAs

Inputs	Plan (PDM Ver. 3)	Actual (Aug. 2016~Aug. 2019)
		(Salfit, Jerusalem, Ramallah) in Nov. 2018.

Table 2 Inputs – Palestinian side

Inputs	Plan (PDM Ver. 3)	Actual (Aug. 2016~Aug. 2019)
(1) Assignment of Counterpart officers	1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture	- Project Director: Deputy Minister -- > Assistant Deputy Minister for Technical Affairs - Project Manager: Director General of GDoERD - Members of 3 Taskforces (Extension, Technical, and Monitoring) and filed level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed. - Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned. - Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017. - All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities.
(2) Project Office	Office space and necessary facilities in Ramallah for Experts	Office space has been made available in Ramallah for the Experts. It was transferred to the main building of MOA in Apr. 2018.

1.2. Progress of Activities (Jul. 2018~ Feb. 2019)

(1) Activities for Output 1

Activities (Plan)	Actual (Mar. 2019~ Aug. 2019)
1-1. Establish Task Forces for implementation of the Project.	- Completed for implementing the 1st, 2nd, and 3rd Cycle activities.
1-2. Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept.	Taskforce Meeting - 6th Monitoring Taskforce Meeting was held on 12th Mar. 2019 to confirm progress of activities and achievement of outputs to be reflected to the Monitoring Sheet. Technology transfer on methods to identify "good practice farmers" - Workshop on identification of "good practice farmers" and preparation of their introduction sheets was held by Mass Media Dep. of GDoERD with assistance of EVAP-2 team and with participation of responsible staff of 4th Cycle DOAs (Bethlehem, North Hebron, Hebron, Dora, Yatta) (27th Aug. 2019). Concept of farmer-to-farmer extension by utilizing "good practice farmers" was explained, database of "good practice farmers" at website which was under development was introduced by staff of Mass Media Dep., and exercise on preparing introduction sheets was done by participants. <3rd Cycle> - Pre-training guidance with DOA C/Ps were conducted to give guidance on implementation procedure of "Farming Improvement Planning with Training Needs Identification" with gender consideration viewpoints with assistance from extensionists of the 1st Cycle DOAs (17th & 18th Mar. for extensionists of the 1st Cycle DOAs, 20th Mar. for Jerusalem, 21st Mar. for Ramallah, 22nd Mar. for Salfit) (same to Activity 3-5). - Pre-training guidance with DOA C/Ps were conducted to give guidance on implementation procedure of "Farm Record Keeping for Profitability Improvement" with assistance from extensionists of the 1st Cycle DOAs (18th Apr. for extensionists of the 1st Cycle DOAs, 24th Apr. for Jerusalem, 23rd Apr. for Ramallah, 22nd Apr. for Salfit) (same to Activity 3-5).
1-3. Support development of annual extension plans for 2 years by the targeted DoAs with a view to reflecting the EVAP Extension Package in the plans.	- Changes in "Petty Cash System" for implementing EVAP Extension Package by MOA/DOA themselves were proposed by EVAP-2 Team: i) ceiling amount will be increased from 500NIS to 1,000NIS per receipt so that expenses for hired car and meals for farmers could be covered by the petty cash, and ii) authority to manage the petty cash will be transferred from DG of GDoERD to Directors of respective DOAs. These proposed changes were approved by Minister of Agriculture (Jun. 2019). Explanatory meeting for DOAs was held and check of 3,000NIS were distributed to respective DOAs (8th Jun. 2019).
1-4. Convene Workshop(s) for the DoAs to report progress in their implementation of	- Workshops regarding progress of implementing annual extension plans which were originally planned in the PDM have not yet been convened. - However, EVAP EP activities have been implemented by the 1st and 2nd Cycle DOAs with MOA's own budget as implementation of the annual extension plans (see description in Activity 3-6 below). These activities are reported by respective DOAs to GDoERD with using the monitoring checklist after each step is

the annual plans developed under Activity 1.3.	completed.

(2) Activities for Output 2

Activities (Plan)	Actual (Mar. 2019~ Aug. 2019)
2-1. Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services.	- Completed by June 2017.
2-2. Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1.	- Completed by June 2017.
2-3. Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package.	- Completed by June 2017.
2-4. Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis.	- Extension services based on the EVAP EP (tours, workshops, trainings, technical supports, etc.) have been provided to the target farmers by C/Ps (extensionists) with assistances of Extension Taskforce members including EVAP-2 Team members (see Activity 3-6 for further detail).
2-5. Develop the 'Provisional EVAP Extension Package' based on the results of the activities under Activity 2.4.	- Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities. Modified one to be applied for the 2nd Cycle was approved in the 3rd JCC held on 27th July 2017. It includes following 7 steps: 1) Willingness and Readiness Confirmation 2) Awareness Creation Tour 3) Market Opportunity Finding 4) Farming Improvement Planning with Extension Needs Identification 5) Farm Record Keeping for Profitability Increase 6) Extension Activities for Farming Improvement 7) Profitability Assessment - In consideration of the requirements that i) all MOA/DOA staff could easily access to through either computers or smart phones, ii) electric data of training materials and related formats could be downloaded and printed, and iii) updated e-Guideline could be immediately shared, a trial version of e-Guideline of the EVAP EP was prepared (Sep. 2018). - Website on i) introducing "good practice farmers" and ii) eGuideline of EVAP Extension Package was under development. Meetings with staff of Mass Media Department, the one of MOA in charge of IT and the one of Ministry of Telecom & Information in charge of controlling webserver of the government were held (27th Nov. 2018) to transfer know-how to update introduction sheets at the website and to discuss the method to upload date to webserver of the government. - Website on introducing "good practice farmers" developed by EVAP-2 Team was transferred to webserver of the government together with staff of MOA in charge of IT and the one of Ministry of Telecom & Information. Actual practice on how to update this website was provided to concerned staff of Mass Media Department (17th Dec. 2018).

(3) Activities for Output 3

Activities (Plan)	Actual (Mar. 2019~ Aug. 2019)
3-1. Select target Districts and new subsectors to provide extension services based on the 'Provisional EVAP Extension Package'.	- Target Districts for the 1st, 2nd, and 3rd Cycle were selected. >1st Cycle: Jericho, Nablus, and Tubas >2nd Cycle: Jenin, Tulkarm, Qalqilya, and Khan Yunis in GS >3rd Cycle: Salfit, Jerusalem, and Ramallah/Al Bireh
3-2. Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups.	- Basic survey to grasp current situations in terms of agriculture, farmers' group, and marketing for target Districts of 1st and 2nd Cycles was already completed in 2016. - 3rd Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1.
3-3. Review the results of the survey conducted under the Activity 3.2 and categorize the	**<2nd Cycle>** - Basic information on Districts (e.g. no. of agricultural holdings, cultivated areas, definition of size of farmers, etc.) was considered when candidate target groups were selected.

farmer groups in the target areas based on their characteristics.	
3-4. Select the farmer groups to provide extension services based on the 'Provisional EVAP Extension Package', taking into account the results of the Activity 3.3.	**<2nd Cycle>** - Target farmer groups were selected in Sep. and Oct. 2017 through agreed criteria and procedures. **<3rd Cycle>** - Target farmer groups were selected in Sep. and Oct. 2018 through agreed criteria and procedures.
3-5. Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4.	**<3rd Cycle>** - Pre-training guidance with DOA C/Ps were conducted to give guidance on implementation procedure of "Farming Improvement Planning with Training Needs Identification" with gender consideration viewpoints with assistance from extensionists of the 1st Cycle DOAs (17th & 18th Mar. for extensionists of the 1st Cycle DOAs, 20th Mar. for Jerusalem, 21st Mar. for Ramallah, 22nd Mar. for Salfit) (same to Activity 1-2). - Pre-training guidance with DOA C/Ps were conducted to give guidance on implementation procedure of "Farm Record Keeping for Profitability Improvement" with assistance from extensionists of the 1st Cycle DOAs (18th Apr. for extensionists of the 1st Cycle DOAs, 24th Apr. for Jerusalem, 23rd Apr. for Ramallah, 22nd Apr. for Salfit) (same to Activity 1-2).
3-6. Provide extension services, including demo farms, based on the 'Provisional EVAP Extension Package' to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5.	**<2nd Cycle>** <Step 6: Extension Activities for Farming Improvement> - Technical trainings, supports and follow-up were provided as follows: Group: Saida Cooperative Association (Tulkarem) — Subject: - Honey bee management (feeding) (10th Dec.). - Honey bee management (queen production, pests and diseases management) (15th Mar. 2019). **<3rd Cycle>** <Step 4: Farming Improvement Planning with Training Needs Identification> - Workshops for the target groups were conducted by corresponding DOAs with the procedure to i) review activities at Step 3 & 4, ii) select target crops/products, iii) classify market types, iv) select appropriate improvement strategies, v) prepare individual farming improvement plans, vi) select target activities as a group, vii) prepare group extension plans (contents and schedules of 5 technical training sessions) (26th Mar., 1st, 10th, 11th, 14th, 15th Apr. 2019). <Step 5: Farm Record Keeping for Profitability Improvement> - Workshops for the target groups were conducted by corresponding DOAs with assistances from the extensionists of 1st Cycle DOAs (25th, 30th Apr. and 5th, 2019). <Step 6: Extension Activities for Farming Improvement> - Technical trainings, supports and follow-up were provided as follows: Group: Dier Ballout Women Extension Group — Subject: - Compost making and application technique (including demonstration) (10th Jul. & 1st Aug. 2019). - Group procurement (8th Aug. 2019).

	(Salfit)	
	Salfit Olive Farmers Extension Group	- Registration procedure as a cooperative to Cooperative Work Agency by the officer of its Salfit branch (19th Jun. 2019). - Study tour to the shop selling equipment and materials related to olive cultivation (Ramallah) and the full-time farmer practicing supplemental irrigation (Nablus) (14th Jul. & 5th Aug. 2019).
	Beit Dukkoo Grape Farmers Extension Group (Jerusalem)	- Technique on preventing downy mildew and pruning of grapes (23rd Dec. 2018 and 23rd Jan. 2019). - Technique on bud picking and berry thinning of grapes (1st Jul. 2019). - Sales promotion technique (branding) (8th Jul. 2019).
	Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem)	- Animal diseases and health (18th Feb. 2019). - Feed management (27th Feb. 2019). - Business matching to a feeding company in Nablus (5th May 2019). - Sheep rearing management and disease prevention technique (15th Jul. 2019). - Study tour to MOA Beit Qad Station (process of AI and character of parent sheep) and a pharmaceutical company for livestock (common sheep diseases and treatment measures) (7th Aug. 2019).
	Al Moghuyer Livestock Farmers Extension Group (Ramallah)	- Animal diseases and health (20th Feb. 2019). - Feed management (25th Feb. 2019). - Sheep rearing management and disease prevention technique (11th Jul. 2019). - Study tour to MOA Beit Qad Station (process of AI and character of parent sheep) and a pharmaceutical company for livestock (common sheep diseases and treatment measures) (4th Aug. 2019).
	Kharbatheh Musbah Olive Farmers Extension Group (Ramallah)	- Supplemental irrigation management technique (3rd Jul. 2019). - Study tour to the shop selling equipment and materials related to olive cultivation (Ramallah) and the full-time farmer practicing supplemental irrigation (Nablus) (14th Jul. 2019). - Group procurement (7th Aug. 2019). - Compost making and application technique (including demonstration) (20th Aug. 2019).
	<Implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves> - EVAP EP activities have been implemented by 1st, 2nd and 3rd Cycle DOAs themselves. Progress in their activities are shown below.	
3-7. Monitor and evaluate the outcome of the extension services provided under the Activity 3.6.	- At the workshops for Step 6 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019), EVAP extension activities and their application for actual farming were evaluated by participating farmers.	

<Implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves>

- EVAP EP activities have been implemented by 1st, 2nd and 3rd Cycle DOAs themselves as follows:

DOA	Farmer Group	Date of implementing EVAP EP activities (Month/Date)					
		Step 1	Step 2 1) 2)	Step 3 1) 2)	Step 4	Step 5	Step 6
2018-2019							
Jericho	Auja Livetsock Extension Group	4/2	4/9 4/26	5/10 6/28	7/16		
	Marj Na'jeh Farmers Extension Group	4/5	4/26 5/10	6/28 8/31	9/13	11/25	
Nablus	Beit Hasan Farmers Extension Group	5/3	7/10	Stop activities.			
	Jama'een Farmers Extension Group	5/10	5/30 7/17	8/6 9/18			
	Beit Foreek Livestock Farmers Extension Group	8/1	8/28	9/20			
	Tell Women Farmers Extension Group	7/2	7/12 8/14	10/10			
Tubas	Kardala Women Farmers Extension Group	7/2	7/9 8/28	9/3 9/18	1/26		
	Akaba Men and Women Farmers Extension Group	7/5	8/1 8/15	8/30 10/14			
Qalqilia	Jensafout Women Extension Group	4/25	6/27 7/25	9/6 9/25	12/13	7/9	8/25
	Qalqilia and Al-Naby Ilyas Farmers Extension Group	4/19	6/28 7/19	10/15 10/25	7/3	7/21	8/29
Tulkarem	Ateel Women Extension Group	5/10	6/27 7/19	10/2	Stop activities.		
	Thenabeh Farmers Extension Group	5/14	6/28 7/31	9/27 10/24	12/27		
Jenin	Al-Jalameh Farmers Extension Group	4/15	9/2 9/26				
	Al-Jalameh Women Extension Group	4/15	9/2 9/26				
2019-2020							
Qalqilia	Qalqilia livestock Farmers Extension Group	8/25	9/8	9/11			
Tulkarem	Kufur Al-Labad Female Farmers Extension Group	7/1	7/21	8/22			
	Tulkarem Female Farmers Extension Group	7/21	9/19				
South Jenin	Qabatiya Grape Farmers Extension Group	9/17					
	South Jenin Honey Bees Farmers Extension Group	9/23					
Salfit	Qarawret Bani Hassan livestock Farmers Group	9/3	9/8	9/11			
Ramallah	Beit Liqia Women Extension Group	9/5					
	Bani Zaid Livestock Farmers Extension Group	8/22	9/12				

<Note>
Step-1: Willingness and Readiness Confirmation

Step-2: Awareness Creation Tour (1) Planning workshop, 2) Tour)
Step-3: Market Opportunity Finding (1) Planning workshop, 2) Tour)

(4) Activities for Output 4

Activities (Plan)	Actual (Mar. 2019~ Aug. 2019)
4-1. Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender perspectives.	- At the workshops on Step-1 (Willingness and Readiness Confirmation) for target farmer groups of the 3rd Cycle, problems and needs relating to farming activities were raised by participating farmers (Oct. and Nov. 2018). - Through participating in the steps of EVAP Extension Package, issues were identified by target farmers of the 3rd Cycle and reflected into their farming improvement plans in Step 4 of the EVAP EP (Mar. & Apr. 2019).
4-2. Collect and assess the existing technical training and extension materials and available equipment/ facilities.	- Completed in 2017.
4-3. Select appropriate technologies, good agriculture practices and equipment/ facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1.	<Technical training materials> - Based on technical needs proposed by the 3rd Cycle target farmer groups, CPs and concerned personnel of MOA/DOA with assistances from EVAP-2 members newly prepared some training materials (e.g. technique on bud picking and berry thinning of grapes) and revise existing ones (e.g. sales promotion technique).
4-4. Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required.	<On-farm Soil Diagnosis> - EVAP-2 Team had meetings with GDoERD and DOAs to check situation of soil testing equipment provided by JICA Regional Cooperation Program and to discuss their utilization in collaboration with On-Farm Soil Diagnosis proposed by EVAP-2 (May 2019). <Trial crop cultivation and livestock raising> **Watermelon** - Trial cultivation of watermelon in greenhouses with applying skills and knowledge on artificial pollination provided by EVAP-2 technical trainings was done by some members of Al-Izab Farmer Extension Group (Qalqilia) (harvested in May 2019). Cooperative farmers were requested to keep records on watermelon cultivation which could be shared with other farmers.

	- Trial cultivation of indigenous variety watermelon (5 varieties) with applying grafted seedlings by members of Maithalon/Sanor Farmer Extension Group and Qabatiya Farmer Extension Group (Jenin) for expecting revival of Jenin branded watermelons (May 2019). - Visit to farms of cultivating indigenous variety watermelon to check their growth situations (30th Jun. 2019). Their fruits had been smoothly grown and pest and disease damages were rarely observed, that could justify effectiveness of grafted seedlings. **Alfalfa** - Trial cultivation of Alfalfa by members of Qalqilia Livestock Extension Group for decreasing feeding costs and providing fresh feed in dry season (May 2019). **System for AI Services** - EVAP-2 Team has supported MOA for establishing the system for providing AI (artificial insemination) services with sustainable manner (May – Jun. 2019) for: ➢ Grasping cost of AI and packaging AI related activities ➢ Estimating prices which farmers could pay ➢ Strengthening capacity of concerned staff of MOA and private veterinaries for actually practicing AI - Farmers were requested to keep records on date of treatment, pregnancy rate, birth date, weights of lamb, etc. - Technology transfer from DOA extensionists to university students who could be engaged in AI services in the future. - Approximately 222 heads of sheep were treated by AI. As a result, approximately 40% of treated ewes but excluding ones infected were pregnant. <Technology transfer from farmers to farmers> - Cases of farmers who have applied know-hows and measures of "Good Practice Farmers" ware confirmed (May 2019): ➢ A farmer of Al-Izab Farmers Extension Group (Qalqilia) has introduced cultivation of grapes and broad beans in greenhouse with referring measures taken by the Good Practice Farmer in Jericho. ➢ A farmer of Al Moghuyer Livestock Farmers Extension Group (Ramallah) has introduced lamb hatch and thermal lamp for keeping body temperature of lamb with referring measures taken by the Good Practice Farmer in Salfit. It was heard that number of lamb mortality was decreased.
4-5. Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.	- Above-mentioned training materials for the 3rd Cycle which could be farming manuals covering comprehensive steps or some steps depending on target crop were prepared.

1.3. Achievement of Outputs

	Outputs	Status for achievement of indicators as of the end of Aug. 2019
1	The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. Understanding of C/Ps (Extension Taskforce members, the 1st, 2nd and 3rd Cycle DOAs) on EVAP EP seems to be deepen through their participating in TOTs/pre-training guidance and facilitating workshops/sessions for the target farmers, judging from that they have facilitated these workshops/sessions smoothly. JICA Experts mainly conducted sessions of TOTs/pre-training guidance related to EVAP EP for the 1st and 2nd Cycles with participation of the Taskforce members. On the other hand, the training on "gender awareness and consideration" for extensionists of the 3rd Cycle DOA, 2 staff of Rural Development Department under GDoERD, who are also the Taskforce members facilitated in this training session. At the pre-training guidance sessions for the 3rd Cycle, DOA extensionists of the 1st Cycle explained implementation procedures of the steps with their experiences. In addition, the 1st and 2nd Cycles DOA themselves have implemented the 2nd round EVAP extension activities based on "EVAP web guideline" prepared by EVAP-2 Team. Thus, it could be said that capacities of DOA extensionists of understanding and implementing the Package have been enhanced to enough level through above variety of activities. 1.2. Budget ceilings which could be exclusively used for the 2nd-round activities of EVAP EP by the DOAs were secured for 6 DOAs (1st and 2nd Cycles) for FY 2018 and 9 DOAs (1st, 2nd and 3rd Cycles) for FY 2019. GDoERD has regarded EVAP EP as the important extension tool and facilitated its application to annual extension plans. Utilization of EVAP EP was included and target sub-sectors were selected in annual extension plans for 6 DOAs for FY 2018 and 9 DOAs for FY 2019.
2	The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	- EVAP-2 team made the 1st revised version of EVAP Extension Package, which was approved in the 2nd JCC held on 4th Jan. 2017. - Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC held on 27th July 2017. - This approved EVAP EP has been applied for the 2nd and 3rd Cycles without further modification. - Since the revised Package was established in full consideration of the results of field activities, it could be said that sufficient level of achievements has been made for this Output 2
3	Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. EVAP EP were reflected into annual extension plans (2018) of the 1st and 2nd Cycle DOAs and target sub-sectors were selected. In consideration of their annual extension plans and target sub-sectors, target farmer groups (14 groups in total) were selected and EVAP EP activities have been conducted by respective DOAs. EVAP EP were also reflected into annual extension plans for 9 DOAs (1st, 2nd and 3rd Cycles) for FY 2019 and target sub-sectors were selected. Activities for 8 groups have so far been implemented. 3.2. Number of farmers participating in respective steps of EVAP EP are as follows: <1st Cycle: 6 farmer groups (FGs)>

Step	Male	Female	Total
Step 2: Planning workshop	34	26	60
Step 2: Tour	51	51	102

Outputs	Status for achievement of indicators as of the end of Aug. 2019

Step 3: Planning workshop	31	50	81
Step 3: Market visit	49	39	88
Step 4: Family Resource & Gender Analysis	41	35	76
Step 5: Action Planning	37	43	80
Farm Record Keeping	24	28	52
Business matching & tour	22	43	65
Technical training, supports, follow-up	148	97	245
Step 7: Profitability Assessment	25	34	59
Total number of participants	462	446	908
Number of beneficiaries (at least one time participation)	165	118	283
Total number of sessions			70
Average number of participants per session			13.0

<2nd Cycle: 6 FGs in West Bank + 2 FGs in Gaza Strip>

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	99	18	117
Step 2: Planning workshop	66	12	78
Step 2: Tour	96	35	131
Step 3: Planning workshop	71	25	96
Step 3: Market visits	105	30	135
Step 4: Farming Improvement Planning	74	27	101
Step 5: Farm Record Keeping	60	25	85
Step 6: Extension Activities (Training & Technical Supports)	250	96	346
Total number of participants	820	269	1,089
Number of beneficiaries (at least one time participation)	338	71	409
Total number of sessions			70
Average number of participants per session			15.6

Note: Only Step 1 activities were implemented for 2 farmer groups in GS.

<3rd Cycle: 6 FGs in West Bank >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	78	22	100
Step 2: Planning workshop	63	28	91
Step 2: Tour	91	32	123
Step 3: Planning workshop	69	29	98
Step 3: Market visits	87	52	139
Step 4: Farming Improvement Planning	50	22	72
Step 5: Farm Record Keeping	43	21	64
Step 6: Extension Activities (Training & Technical Supports)	238	60	298
Total number of participants	719	266	985

Outputs	Status for achievement of indicators as of the end of Aug. 2019

Number of beneficiaries (at least one time participation)	262	91	353
Total number of sessions			54
Average number of participants per session			18.2

As mentioned above, enough farmers have participated in activities of EVAP EP.

3.3. Several cases that farmers have applied knowledge, techniques and know-hows obtained from activities of the Package (good practice farmers visited by "awareness creation tours", market visits, technical trainings, etc.) have so far been heard.
According to the results of Step 7 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019), the ratios of farmers who have applied information and techniques from EVAP EP activities for their farming activities exceed 70% in all Steps. In addition, all respondents have applied information/techniques obtained from any of the Steps. Many examples of applications were raised by participating farmers at the workshops of this Step 7.

4	The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. At the Step 4 (Farming Improvement Planning), target crops were selected and necessary technical trainings for Step 6 were discussed based on target farmers' needs. In consideration of these needs, various technical training materials which could be cultivation and farming manuals covering comprehensive steps or some steps depending on target crops/products have been prepared. In the fields of livestock and soil management, technical manuals on specific issues (e.g. semen freezing technique, on-farm soil diagnosis, etc.) which might have high demands from farmers were also prepared. 4.2. Technical manuals were prepared with fully incorporating opinions of concerned DOA extensionists and staff of technical departments through Extension/Technical Taskforce Meetings and pre-training guidance, etc. Some manuals were prepared by DOA extensionists and/or technical staff of MOA themselves. On the other hand, according to the results of evaluation at Step 7 by target farmers of the 1st Cycle, nearly all farmers showed their satisfactions on Step 5 (Farm Record Keeping) and Step 6 (Extension Services and Technical Trainings) of EVAP activities which used technical manuals (58 out of 59 respondents for Step 5, 54 out of 55 respondents for Step 6). Thus, it could be thought that farmers positively evaluate technical manuals prepared under EVAP activities.

1.4. Achievement of the Project Purpose

Increase in net income from agriculture of the target farmers as the Project Purpose was checked at the workshops of Step 7 for target farmers of the 1st Cycle. Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP activities (baseline status). Net agricultural profits with EVAP have been increased by 46.1% for 2 years in comparison with those without EVAP. Thus, annual increase in agricultural net profits is 20.9%, which exceeds target figure of 8.0% increase of the Project Purpose. However, 17 out of 59 farmers (10.0%) have not obtained increase in

their net profits.

Change in Agricultural Net Profits After/With EVAP

Target Farmer Group	Total Net Profit (NIS/Year) (Present)	Total Net Profit (NIS/Year) (Baseline)	No. of Sample Households (HH)	Average Net Profit (NIS/Year/HH) (Present)	Average Net Profit (NIS/Year/HH) (Baseline)	% (Present/ Baseline)	% (difference)
Total	1,115,419	763,233	59	18,905	12,936	146.1%	+46.1%

1.5. Changes to the risks as identified under the PDM and Actions taken for their mitigation

Not applicable.

1.6. Progress in Actions undertaken by JICA

1.7. Progress in Actions undertaken by Ministry of Agriculture, Palestine

<Progress and countermeasures>

(1) Arrangement for an office for the Japanese Expert Team and necessary facilities.

New office space at the MOA main building was offered to EVAP-2 Team (including Japanese Experts) in Apr. 2018.

(2) Assignment of the counterparts.

Project Director (Assistant Deputy Minister for Technical Affairs) and Project Manager (Director General, GDoERD) were assigned. Members of 3 Taskforces (Monitoring, Technical, Extension) and field level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed.

Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned (Apr. 2017).

Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017.

All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities.

1.8. Progress of Environmental and Social Considerations

Not applicable

1.9. Progress of Considerations on Gender/ Peace building/ Poverty Reduction

Sessions for Step 7 (Profitability Assessment) of the EVAP EP were conducted (Feb. & Mar. 2019) for target 6 farmer groups of the 1st Cycle with following participants to assess farmers' profits by EVAP activities as well as to evaluate such issues as information use, farmers' satisfactions on EVAP activities, improvement of problems, and effectiveness of gender consideration.

Targets	Participants (Respondents)		
	Male	Female	Total
Frosh Beit Dajan Cooperative Association (Nablus)	8	0	8
Mother's School Association in Al Badhan (Nablus)	0	15	15
Bardala **Women Extension Group** (Tubas)	0	11	11
Aqqaba **Women Extension Sub-group** (Tubas)	1	8	9
Jiftlik Farmers Extension Group (Jericho)	10	0	10
Al Mussafah Extension Sub-group (Jericho)	6	0	6
Total	25	34	59

Regarding effectiveness of gender consideration, following questions with gender viewpoints were asked to participating farmers of the 1st Cycle.

A. Improve women's access/control to resources (for female members)

A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?

A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?

A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?

A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?

A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?

B. Improve division of works/responsibilities of family members and enhance their work efficiency and productivities

B-1. Have workloads of family members (particularly female farmers) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?

C. Facilitate women's involvement in decision-making in family

C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?

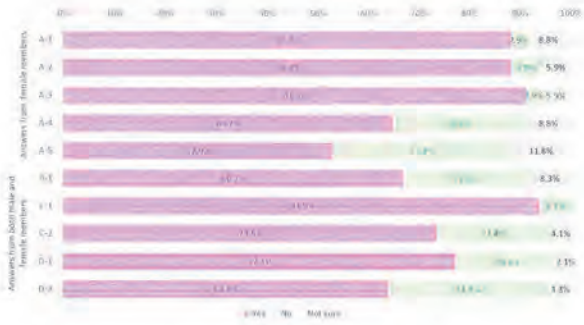
C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?

D. Facilitate gender awareness of male members and local communities

D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?

D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?

Results of aggregating answers from farmers are shown below. While 80% of male farmers answered "Yes" for Question B-1, only 50% of female ones answered "Yes" for this question. Higher rates of both male and female farmers answered that they had shared information for marketed-oriented agriculture with other family members (Question C-1). Regarding women's involvement with decision-making (Question C-2), while 85.3% of female farmers answered "Yes", only 48% of male ones answered "Yes". It could be thought that there was no change in women's involvement with decision-making in cases that female members were not involved with agriculture activities (e.g. Frosh Bait Dajan). Higher rates of both male and female farmers (more than 70%) answered "Yes" for Question D-1.



1.10. Other remarkable/ considerable issues related/ affect to the Project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

EVAP-2 activities for Gaza Strip have been suspended due to its political instability.

2. Delay of Work Schedule and/ or Problems

Not applicable.

3. Modification of the Project Implementation Plan (see PO and PDM as per attached)

3.1. Plan of Operation (PO)

Some modification (project period is extended).

3.2. Other modification on detailed implementation plan

Not applicable.

4. Preparation of the Palestinian side toward after completion of the Project

(1) Policy

"EVAP Extension Package" which was developed by the EVAP-1 Project and has been practiced by the EVAP-2 Project was incorporated into "Palestinian National Agricultural Extension Strategy (PNAES) 2016-2019" (March 2016).

"National Agriculture Sector Strategy (2017-2022)" was prepared by Ministry of Agriculture. This EVAP-2 Project is in line with this Strategy, particularly its strategic objectives 3 (Increase in agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security), 4 (Improvement of female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains) and 5 (Development of effective and efficient institutional and legal frameworks).

(2) Institutional aspect

EVAP Extension Package (EP) were reflected into annual extension plans of target DOAs (1st/2nd DOAs for FY 2018 and 1st/2nd/3rd DOAs for FY 2019). Its refection to annual plans of 1st/2nd/3rd/4th DOAs are underway.

(3) Technical aspect

Based on knowledge, know-hows and experiences acquired from implementation of the 1st Round EVAP EP activities with direct assistance from EVAP-2 Team as well as the Guideline of the EVAP EP prepared by EVAP-2 Team, the 2nd Round EVAP EP activities have been implemented by the estensionists of the 1st/2nd DOAs themselves. The e-Guideline of the EVAP EP which the estensionists could refer to is under preparation.

(4) Financial aspect

Budget ceilings which could be exclusively used for the 2nd Round EVAP EP activities were secured for FY 2018, 2019 and 2020.

System for smooth budget request and disbursement for implementing EVAP EP has been improved (e.g. preparation of "manual on budget request and disbursement for EVAP EP", introduction of "petty cash system", etc.)

Project Monitoring Sheet I ver.7（Based on Project Design Matrix ver. 4）

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Version 7

Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development

Dated 2019/10/2

Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip

Period of Project: July 2016 - September 2021 (5 years)

Project Site: All Districts of West Bank and Gaza Strip

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
In all Districts of West Bank & Gaza Strip, the number of farmers who have experienced a rise in their income through the benefits of extension services based on the Improved EVAP Extension Package have increased.	The net income from agriculture have increased among significant number (to be determined) of small and medium sized farmers in all Districts of West Bank & Gaza Strip.	Ex-post evaluation		-	-
Project Purpose					
In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen based on the Improved EVAP Extension Package.	The net income[*1] from agriculture[*2] have increased among the targeted small and medium sized farmers by 8.0% at the time of Project completion[*3]. **1: Current (nominal) prices will be applied.* **2: It will specify agriculture activities related to target crops under EVAP-2.* **3: Data on profitability increase of target crops under EVAP-2 for 2 years will be calculated by the target farmers based on their farm records (not at the time of Project completion).*	Baseline survey, Project evaluation report (End-line Survey)	1. There are no natural disaster incidents in the region.	According to the evaluation results of the 1st Cycle activities, average annual increase in agricultural net profits of target farmers due to EVAP activities is 20.9%.	
Outputs					
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. All targeted MoA and DoA personnel[*1] (i.e. the participants of Activity 1.2) demonstrate good understanding of EVAP Extension Package, including its principles and objectives. **1: Those nominated as Project counterparts.*	Presentation materials used under Activity 1.4 Interviews	1. There are no drastic climatic changes. 2. The market value of agricultural produce does not decline drastically.	Achievement with sufficient level. Understanding of C/Ps on EVAP EP seems to be deepened as related activities have been conducted.	
	1.2. All DoA annual plans reflect the EVAP Extension Package.	DoA annual plans		Sufficient level of achievement in terms of reflecting EVAP EP into annual plans of the 1st, 2nd and 3rd Cycle DOAs.	
Output 2: The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	2.1. The Provisional EVAP Extension Package incorporate measures to ensure that its extension services reach out to small and medium sized farmers.	Revisions made through Activities 2.1 through 2.5 and their reasons.		Achieved with sufficient level. The 1st revised EVAP EP was approved in the 2nd JCC. It was revised based on the results of the 1st Cycle activities and approved in the 3rd JCC. This approved EVAP EP has been applied for the 2nd and 3rd Cycles without further modification.	
	2.2. The improved EVAP Extension Package is finalized and approved by JCC.	JCC minutes			
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. All DoAs implement their annual plan without direct support of the Project.	M&E Report of the DoAs one year after implementation of the cycle under Activities 3.1-3.6.		Certain level of achievement. EVAP EP activities have been conducted for 14 farmer groups by the 1st and 2nd Cycle DOAs themselves with MOA budget of FY 2018. Activities for additional 8 farmer groups have been started by the 2nd and 3rd Cycle DOAs with FY2019 budget.	
	3.2. Appropriate levels (to be determined) of participation of small and medium sized farmers is observed under Activity 3.6.	Records kept by the extensionists		Sufficient level of achievement. See Summary Table for details of related activities and number of participating farmers.	
	3.3. Significant number/proportion (to be determined) of small and medium sized farmers adopt the suggested techniques/know-hows.	Results of Activity 3.7 (End-line Survey Report)		Sufficient level of achievement. According to the evaluation results of the 1st Cycle activities, the ratios of farmers who have applied information and techniques from EVAP EP activities for their farming activities exceed 70% in all Steps.	
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. Farming manuals that cover the comprehensive steps from planting to marketing for each relevant agricultural products, based on the needs of the small and medium sized farmers, have been developed.	Farming manuals		Sufficient level of achievement. Variety of training materials which could be farming manuals covering comprehensive steps or some steps depending on target crops/products were prepared based on needs of target farmers of the 1st, 2nd and 3rd Cycles.	
	4.2. The farming manuals receive positive feedback from the extensionists and farmers.	Questionnaire survey among extensionists and farmers		Sufficient level of achievement. Technical manuals were prepared with incorporating opinions of concerned DOA extensionists and staff of technical departments. Some manuals were prepared with their initiatives. According to the evaluation results of the 1st Cycle activities, nearly all farmers showed their satisfactions on technical trainings which used technical manuals prepared by EVAP	

Activities	Inputs		Important Assumption
	The Japanese Side	**The Palestinian Side**	
1.1 Establish Task Forces for implementation of the Project. 1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept. 1.3 Support development of annual extension plans for 2 years by the targeted DoAs with a view to reflecting the EVAP Extension Package in the plans. 1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3. 2.1 Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services. 2.2 Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1. 2.3 Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package. 2.4 Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis. 2.5 Develop the 'Provisional EVAP Extension Package' based on the results of the activities under Activity 2.4. 3.1 Select target Districts and new subsectors to provide extension services based on the 'Provisional EVAP Extension Package'. 3.2 Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups. 3.3 Review the results of the survey conducted under the Activity 3.2 and categorize the farmer groups in the target areas based on their characteristics. 3.4 Select the farmer groups to provide extension services based on the 'Provisional EVAP Extension Package', taking into account the results of the Activity 3.3. 3.5 Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4. 3.6 Provide extension services, including demo farms, based on the 'Provisional EVAP Extension Package' to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5. 3.7 Monitor and evaluate the outcome of the extension services provided under the Activity 3.6. 4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender perspectives. 4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities. 4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1. 4.4 Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required. 4.5 Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.	a. Dispatch of Japanese Experts 1. Chief Advisor/ Farm management (1)/ Agricultural Policy/ Fruit production 2. Deputy Chief Advisor/ Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/ Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Animal husbandry/Veterinary/ Animal disease diagnosis 8. Water-saving/ Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/ Planning and reporting system development b. Counterpart training program Trainings (2 times) in Japan c. Equipment and materials Vehicles, other equipment and materials to be agreed upon in consideration of needs. d. Local operation costs: budget related to the Project activities	a. Personnel (Project counterpart) 1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture b. Office space and necessary facilities at Ramallah for Experts c. Local cost (to be specified) Each targeted District will utilize the available resources for implementing "EVAP Extension Package"-based extension services after the second year of each targeted District.	1. Price of agricultural inputs does not suddenly rise. **Pre-Conditions** Palestinian policy for agricultural cooperatives and extensions do not change. The international political environment surrounding Palestine does not drastically deteriorate. Counterpart personnel are properly assigned in MoA and DOA. **<Issues and countermeasures>**

1) EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Th. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.
2) Regarding the Activities under Output 2, the Project will initially revise the "EVAP Extension Package" in those Districts in which the same subsectors of agriculture as the Districts under the previous phase of EVAP (i.e. irrigated vegetable and livestock) is practiced, in order not to introduce unnecessary elements of complication.
3) Regarding the Activities under Output 3,the Project provides direct support to implement the first cycle of the "EVAP Extension Package" for each District in West Bank. Thereafter, each DOA would be held responsible for independent implementation of "EVAP Extension Package"-based extension services with periodical follow-up by the MOA and Japanese Experts.
4) When targeting Gaza Strip for activities under Output 3, where accessibility is limited for the Japanese Experts due to security advisory, the DOA officials will be invited to West Bank Districts to take part in training or SMS and extensionists of the West Bank Districts provide training in Gaza in order to enable them to independently implement their extension activities with periodical follow-up by the MOA and Japanese Experts. Objectively verifiable indicators for Gaza Strip will be measured for Output 1 only.
5) Refers to those equipment/facilities introduced under EVAP1, including compost-making facilities, silage-making machineries, equipment for soil analysis laboratory, AI service-related equipment.

Project Monitoring Sheet II ver. 7 (based on Plan of Operation ver.4)

Version 7
October 2, 2019

ANNEX2

Project Title: The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Monitoring

Inputs	Phase / Year	Remarks	Issue	Solution
Expert				
Chief Advisor/ Farm Management (1)/ Agricultural Policy/ Fruit production	Plan / Actual	Their actual assignment schedules/periods were modified in consideration of progress of the Project activities.	None.	
Deputy Chief Advisor/ Farm Management (2)/ Field Crop Cultivation (1)	Plan / Actual			
Extension Planning/Training Materials Development	Plan / Actual			
Gender/Farmers Organizations	Plan / Actual			
Vegetable Production (1)	Plan / Actual			
Vegetable Production (2)/ Field Crop Cultivation (2)	Plan / Actual			
Animal Husbandry/ Veterinary/ Animal Disease Diagnosis	Plan / Actual			
Water-Saving/ Water Use Techniques/ Soil Management	Plan / Actual			
Marketing	Plan / Actual			
Monitoring/ Planning and Reporting System Development	Plan / Actual			
Equipment				
Vehicles	Plan / Actual	Minibus and 4WD pickup truck were procured, and are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018.	Status of using these cars by respective DOAs.	
Facilities/equipment necessary for effective extension	Plan / Actual			
Training in Japan				
Training for Counterpart Personnel	Plan / Actual	1st training in Japan was held in Oct. 2018. 2nd training in Japan is planned to be conducted in Oct. 2020.	Status of preparing the 2nd training.	

Activities / Sub-Activities	Year	Responsible Organization: Japan	Responsible Organization: Palestine	Achievements	Issue & Countermeasures
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.					
1.1 Establish Task Forces for implementation of the Project.	Plan / Actual	JICA	MOA	Completed as scheduled.	None.
1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and District Agriculture Offices (DoAs).	Plan / Actual	JICA	MOA	Series of Taskforce (Extension, Technical, Monitoring) Meetings, pre-training guidance/meetings with 1st, 2nd, 3rd Cycle DOAs were held.	None.
1.3 Support development of annual extension plans by the targeted DoAs.	Plan / Actual	JICA	MOA	Meetings to support for and monitor implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves.	Continuous follow-up implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs.
1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans.	Plan / Actual	JICA	MOA	Not yet implemented as scheduled.	None.
Output 2:The EVAP Extension Package[1] is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank & Gaza Strip.					
2.1 Review the EVAP Extension Package, with a view to mainstreaming gender and improving the effectiveness of extension services.	Plan / Actual	JICA	MOA	Completed as scheduled.	None.
2.2 Propose a Revised Draft EVAP Extension Package.	Plan / Actual	JICA	MOA	Completed as scheduled (The 1st revised EVAP EP was approved in the 2nd JCC).	None.
2.3 Select farmer groups from among Districts in the West Bank for the purpose of revision of the EVAP Extension Package.	Plan / Actual	JICA	MOA	Completed as scheduled (Target farmer groups for the 1st Cycle were selected).	None.
2.4 Provide extension services based on the Revised Draft EVAP Extension Package on a trial basis.	Plan / Actual	JICA	MOA	Completed with a trial basis. See 3-6 for progress in extension service activities for target farmers.	None.
2.5 Develop the 'Provisional EVAP Extension Package'.	Plan / Actual	JICA	MOA	EVAP EP was modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC. Outlines of eGuideline of EVAP EP and website were developed. Their finalization and operations should be followed up.	None.
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.					
3.1 Select target Districts and new subsectors to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan / Actual	JICA	MOA	Target Districts for the 1st, 2nd and 3rd Cycles were selected.	None.
3.2 Conduct survey on agricultural practice including gender roles in the target Districts.	Plan / Actual	JICA	MOA	EVAP-2 team conducted the basic survey to grasp current situations.	None.
3.3 Review the results of Activity 3.2 and categorize the farmer groups in the target areas.	Plan / Actual	JICA	MOA	EVAP-2 team categorized the farmer groups by several characteristics.	None.
3.4 Select the farmer groups to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan / Actual	JICA	MOA	Target farmer groups for the 3rd Cycle were selected Target farmer groups for the 4th Cycle will be selected in Sep. - Oct. 2019.	None.
3.5 Develop the details in each extension step.	Plan / Actual	JICA	MOA	Ongoing for 3rd Cycle.	None.
3.6 Provide 'Provisional EVAP Extension Package'-based extension services, including demo farms, to the selected farmer groups.	Plan / Actual	JICA	MOA	Ongoing for 3rd Cycle.	None.
3.7 Monitor and evaluate the outcome of the Activity 3.6.	Plan / Actual	JICA	MOA	Evaluations for the 1st Cycle activities were conducted as Step-7.	None.
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.					
4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers.	Plan / Actual	JICA	MOA	Problems/needs were raised by target farmers of the 3rd Cycle.	None.
4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities.	Plan / Actual	JICA	MOA	Done as scheduled.	None.
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced.	Plan / Actual	JICA	MOA	Ongoing as scheduled.	None.
4.4 Verify and conduct field demo farms, as required, the applicability of the newly introduced technology based on the verification criteria.	Plan / Actual	JICA	MOA	Ongoing as scheduled.	None.
4.5 Develop farming manuals that cover the comprehensive steps from planting to marketing.	Plan / Actual	JICA	MOA	Done for the 3rd Cycle.	None.
Duration / Phasing	Plan / Actual				

Monitoring Plan	Year	Remarks	Issue	Solution
Monitoring				
Joint Coordinating Committee	Plan / Actual			
Set-up the Detailed Plan of Operation	Plan / Actual			
Submission of Monitoring Sheet	Plan / Actual			
Monitoring Mission from Japan	Plan / Actual			
Joint Monitoring	Plan / Actual			
Post Monitoring	Plan / Actual			
Reports/Documents				
Inception Report	Plan / Actual			
Progress Report	Plan / Actual			
Training Materials	Plan / Actual			
Project Completion Report	Plan / Actual			
Public Relations				
Establishment and Operation of Web Site	Plan / Actual			
Seminars	Plan / Actual			

[1] EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.

To: The Chief Representative, JICA Palestine Office

PROJECT MONITORING SHEETS

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Palestine

Version 8

Date of Submission: 13 September 2020

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ABBREVIATIONS

C/P	Counterpart
DOA	District of Agriculture
-	Dunum (land unit, 1 dunum=approx. 900m2)
EP	Extension Package
EVAP	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 1)
EVAP Phase 2	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)
FAO	Food and Agriculture Organization
GDoERD	General Directorate of Extension and Rural Development
Global GAP	Global Good Agricultural Practice
GS	Gaza Strip
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
MOA	Ministry of Agriculture
M/M	Minutes of Meetings
NARC	National Agriculture Research Center
NIS	New Israeli Shekel
NGO	Non-Governmental Organization
ODA	Official Development Assistance
PA	Palestinian Authority
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussion
SHEP	Smallholder Horticulture Empowerment Program
SMS	Subject Matter Specialist

I. Summary

1. Progress

1.1. Progress of Input

Table 1 Inputs – Japanese side

Inputs	Plan (PDM Ver. 4)	Actual (Aug. 2016~Feb. 2020)
(1) Experts	123.5 man-months in total 1. Chief Advisor/Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production 6. Animal husbandry 7. Water-saving/Water use techniques 8. Marketing 9. Training materials development 10. Monitoring/Planning and reporting system development	Period 1 (Aug. 2016~Apr. 2018): 57.32 man-months in total 1. Chief Advisor/ Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2) 7. Animal husbandry 8. Water-saving/Water use techniques 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development Period 2 (Jun. 2018~ Aug. 2019): 36.43 man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Veterinary/ Animal disease diagnosis 8. Water-saving/Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development 12. Training in Japan Period 3 (Sep. 2019~): 6.92 man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Veterinary/ Animal disease diagnosis 6. Training materials development 7. Monitoring/Planning and reporting system development 8. Training in Japan
(2) Training in Japan/ third countries	Training in Japan: 2 times	- 1st training in Japan was held 16th- 27th October 2018 (orientation session was held at MOA HQ on 10th Oct.) with following contents. Nine C/Ps in total (GDoERD, Jericho, Nablus, Tubas, Jenin, Tulkarem, Qalqiliya DOAs) participated in this training. Venue: JICA Tsukuba — Contents: - Lecture on agricultural extension system in Japan: critical points, case of wide network among extension agents, etc. - Lecture on "toward 6th industry": history of agro-processing industries in Japan and their issues, etc. Nagano Prefecture — - Visit to vegetable/flower experimental and research station. - Lecture on agricultural extension activities: outlines, good examples, monitoring methods, issues and countermeasures, etc. - Lecture on countermeasures for damages by wild boars. - Visit to a direct selling shop of agricultural products, JA's colleting/shipping facility, value added activities by broccoli producing farmer, and agro-processing activities by a female farmer group. Chiba Prefecture — - Visit to i) value added activities by green onion producing farmer, tomato producing farmer and radish producing farmer, ii) a dairy farm for tourism, and iii) a direct selling shop (*"michi no eki* (roadside shop)"). - Lecture on human resources development of extension agents and production center of green onion. JICA HQ — - Courtesy visit: introduction of assistance activities by JICA toward MOA in Palestine, etc. Permanent General Mission of Palestine — - Courtesy visit: explanation of the training schedule and its progress and outputs, etc. - 2nd training in Japan is planned to be held around October 2020.
(3) Equipment	Vehicles Procurement of vehicles for DOAs of the 3rd cycle and later will be examine and decided later. Other equipment to be agreed upon at a later stage in consideration of needs.	- 2 vehicles (minibus and 4WD pickup truck) were procured in Nov. 2017. These vehicles are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. - 4 digital cameras were respectively provided to Mass Media Dept., DOAs of the 1st Cycle DOAs (Jericho, Nablus, Tubas) in Apr. 2017. Additional 3 cameras were given to the 2nd Cycle DOAs (Jenin, Tulkarem, Qalqilia) in Jul. 2017. - A color printer was provided to GDoERD in Jun. 2017. - A notebook PC was provided to GDoERD in Sep. 2017. - Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. - 3 digital cameras were given to the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallah) in Nov. 2018. - Eight 4WD pickup trucks provided to MOA in March 2020 were delivered to the 3rd and 4th Cycle DOAs on 25 March 2020.

Table 2 Inputs – Palestinian side

Inputs	Plan (PDM Ver. 4)	Actual (Aug. 2016~Feb. 2020)
(1) Assignment of Counterpart officers	1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture	- Project Director: Deputy Minister -- > Assistant Deputy Minister for Technical Affairs - Project Manager: Director General of GDoERD - Members of 3 Taskforces (Extension, Technical, and Monitoring) and filed level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed. - Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned. - Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017. - All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities. - Field level C/Ps for 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, Yatta, South Hebron (Dora)) were appointed in Nov. 2019.
(2) Project Office	Office space and necessary facilities in Ramallah for Experts	Office space has been made available in Ramallah for the Experts. It was transferred to the main building of MOA in Apr. 2018.

1.2. Progress of Activities (Sep. 2019~ Feb. 2020)

(1) Activities for Output 1

Activities (Plan)	Actual (Sep. 2019~ Feb. 2020)
1-1. Establish Task Forces for implementation of the Project.	- Completed for implementing the 1st, 2nd, 3rd and 4th Cycle activities.
1-2. Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept.	Taskforce Meeting - 7th Monitoring Taskforce Meeting was held on 2nd Oct. 2019 to confirm progress of activities and achievement of outputs to be reflected to the Monitoring Sheet. - 9th Extension Taskforce Meeting (8th Jan. 2020) to discuss contents (questionnaire) and procedure of the Step 7 (Profitability Assessment) of EVAP Extension Package to be implemented for the 2nd Cycle target farmer groups. Technology transfer on methods to identify "good practice farmers" - Technology on how to interview "good practice farmers" and to prepare their introduction sheets was transferred from C/Ps of Mass Media Dep. of GDoERD with assistance of EVAP-2 team to concerned staff/extensionists of 4th Cycle DOAs through actual visits and interviews with good practice farmers for: i) making year-round cultivation and shipment of mint by combination of open field and green house cultivation (23rd Sep. with Hebron DOA); ii) cultivation/shipment of cut flowers (rose) with green house based on market needs (26th Sep. with South Hebron DOA); iii) cultivating high-quality cucumber and tomato with using soil disease tolerant grafted seedlings (29th Sep. with Bethlehem DOA); iv) cultivating different varieties of grapes based on market needs (30th Sep. with North Hebron DOA); v) farming improved sheep breed with high productivity (1st Oct. for Yatta DOA). (common to Activity 4-3) - Continuous technology transfer to 4th Cycle DOAs through actual visits and interviews to good practice farmers (in Hebron) for: i) introducing early grape variety for enhancing shipment price (3rd Nov. 2019); ii) applying sorting system with setting grades for each grape variety (30th Oct.); iii) applying heating by using waste oil for reducing mortality of lambs and abortions (5th Nov.); iv) taking feeding program with appropriate application of mixed feed for decreasing cost for fodder (5th Nov.). (common to Activity 4-3) <2nd Cycle> - Pre-training guidance with DOA C/Ps were conducted to discuss contents and implementation procedure of Step 7 (Profitability Assessment) of the EVAP EP (12th Jan. 2020 for Jenin/South Jenin, 13th Jan. for Tulkarem, 14th Jan. for Qalqilia) (common to Activity 3-5). <4th Cycle> - Kickoff meetings with extensionists of target DOAs were held (23rd Sep. 2019 for Hebron, 26th Sep. for South Hebron (Dora), 29th Sep. for Bethlehem, 30th Sep. for North Hebron and 1st Oct. for Yatta) to explain outline/features of the EVAP Extension Package and necessity of implementing this Package by their own budgets as well as to request them to prepare lists of candidate target farmer groups. - Training session on "Gender Awareness and Consideration" (Step 1-3 of the Package) was conducted for extensionists of the 4th Cycle DOAs (Bethlehem,

	Hebron, North Hebron, South Hebron and Yatta) on 21st Oct. 2019 with following contents. C/Ps from Rural Development Department of GDoERD facilitated the session with assistance of EVAP-2 Team: 1) Necessity of gender consideration: concept of gender, significance of women and necessity of gender consideration in agriculture sector. 2) Gender viewpoints to be considered in EVAP-2: i) improve access/control to resources (knowledges, technologies, training opportunities, agricultural inputs, etc.), ii) enhance work efficiency and productivities of family members, iii) facilitate women's involvement in decision-making in family, and iv) facilitate gender awareness of male members and local communities. 3) Gender consideration in EVAP-2: i) introduction of gender consideration measures applied for the 1st 2nd and 3rd Cycle activities, ii) explanation of the evaluation results on effectiveness of gender consideration for the 1st Cycle; and iii) exercise/discussion on a) gender-oriented problems in agricultural sector in Palestine, b) gender consideration measures to be applied for respective steps of the Package in consideration of socio-economic situations of target farmer groups. 4) Introduction of gender analysis tools and evaluation method with gender viewpoints: activity profile, daily activity calendar, access to and control of resources, and evaluation methods with gender viewpoints, etc. - Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle was conducted to make them understand implementation procedure of "Awareness Creation Tour" (Step-2) (12th Nov. 2019). 2 C/Ps from Qalqilia DOA (2nd Cycle) who were involved in implementing the Step-2 of the Package were selected as lecturers for this guidance. They explained the implementation procedure of Step-2 with utilizing "e-Guidelines" which was prepared by EVAP-2 Team in consultation with relevant C/Ps. (common to Activity 3-5). - Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle was conducted to give guidance on implementation procedure of "Market Opportunity Finding" and know-how of facilitation (26th Jan. 2020). 2 C/Ps from Tulkarem DOA (2nd Cycle) who were involved in implementing the Step-3 of the Package were selected as lecturers for this guidance. DOA extensionists for the 4th Cycle were requested to examine in advance where to visit in consideration with interests, farming situation and social practices, in collaboration with GD of Marketing. (common to Activity 3-5).
1-3. Support development of annual extension plans for 2 years by the targeted DoAs with a view to reflecting the EVAP Extension Package in the plans.	- "Petty Cash System" for implementing EVAP Extension Package by MOA/DOA themselves was changed and approved by Minister of Agriculture (Jun. 2019). - Follow-up and supports have been continued for implementation of EVAP EP by 1st, 2nd, 3rd and 4th Cycle DOAs themselves.
1-4. Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3.	- Workshops regarding progress of implementing annual extension plans which were originally planned in the PDM have not yet been convened. - However, EVAP EP activities have been implemented by the 1st, 2nd and 3rd Cycle DOAs with MOA's own budget as implementation of the annual extension plans (see description in Activity 3-6 below). These activities are reported by respective DOAs to GDoERD with using the monitoring checklist after each step is completed.

(2) Activities for Output 2

Activities (Plan)	Actual (Sep. 2019 - Feb. 2020)
2-1. Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services.	- Completed by June 2017.
2-2. Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1.	- Completed by June 2017.
2-3. Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package.	- Completed by June 2017.
2-4. Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis.	- Extension services based on the EVAP EP (tours, workshops, trainings, technical supports, etc.) have been provided to the target farmers by C/Ps (extensionists) with assistances of Extension Taskforce members including EVAP-2 Team members (see Activity 3-6 for further detail).
2-5. Develop the 'Provisional EVAP Extension Package' based	- Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities. Modified one to be applied for the 2nd Cycle was approved in the 3rd JCC held on 27th July 2017. It includes following 7 steps: 1) Willingness and Readiness Confirmation

on the results of the activities under Activity 2.4.	2) Awareness Creation Tour 3) Market Opportunity Finding 4) Farming Improvement Planning with Extension Needs Identification 5) Farm Record Keeping for Profitability Increase 6) Extension Activities for Farming Improvement 7) Profitability Assessment - Step 1~4 for e-Guideline of the EVAP EP have been prepared by December 2019. - Additional site on manuals and related materials for annual extension planning, budget request, disbursement and expense treatment, etc. for administrative divisions and concerned personnel was included in e-Guideline (Dec. 2019). - Website on introducing "good practice farmers" was updated by adding cases in southern part of West Bank by C/Ps of Mass Media Department and concerned personnel of the 4th Cycle DOAs with assistance of EVAP-2 Team (Dec. 2019). - System for conducting online monitoring on EVAP activities by DOA themselves with MOA's own budget was developed and included in e-Guideline (Dec. 2019). Trial operation of this monitoring system will be applied for 4 DOAs. If its effectiveness is confirmed, application of this system will be expanded to all DOAs.

(3) Activities for Output 3

Activities (Plan)	Actual (Sep. 2019~ Feb. 2020)
3-1. Select target Districts and new subsectors to provide extension services based on the 'Provisional EVAP Extension Package'.	- Target Districts (DOAs) for the 1st, 2nd, 3rd and 4th Cycle were selected. >1st Cycle: Jericho, Nablus, and Tubas >2nd Cycle: Jenin, Tulkarm, Qalqilya, and Khan Yunis in GS >3rd Cycle: Salfit, Jerusalem, and Ramallah/Al Bireh >4th Cycle: Bethlehem, Hebron, North Hebron, South Hebron and Yatta.
3-2. Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups.	- Basic survey to grasp current situations in terms of agriculture, farmers' group, and marketing for target Districts of 1st and 2nd Cycles was already completed in 2016. - 3rd Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1. - 4th Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1.
3-3. Review the results of the survey conducted under the Activity 3.2 and categorize the farmer groups in the target areas based on their characteristics.	<2nd, 3rd and 4th Cycles> - Basic information on Districts (e.g. no. of agricultural holdings, cultivated areas, definition of size of farmers, etc.) was considered when candidate target groups were categorized and selected.

3-4. Select the farmer groups to provide extension services based on the 'Provisional EVAP Extension Package', taking into account the results of the Activity 3.3.	<2nd Cycle> - Target farmer groups were selected in Sep. and Oct. 2017 through agreed criteria and procedures. <3rd Cycle> - Target farmer groups were selected in Sep. and Oct. 2018 through agreed criteria and procedures. <4th Cycle> - Criteria (small/medium-sized farmers, supports from DOAs/donors, manageable size of group, inclusion of women/women-dominant groups, leaders selected from actual beneficiaries with management capacity and motivation, etc.) and procedure of selecting target farmer groups were shared with DOAs and they were requested to select target sub-sectors and prepare long lists of candidate groups with their necessary information at the kickoff meetings (23rd Sep. 2019 for Hebron, 26th Sep. for South Hebron (Dora), 29th Sep. for Bethlehem, 30th Sep. for North Hebron and 1st Oct. for Yatta) (common to Activity 1-2). - 4th Cycle DOAs together with Extension Taskforce members/EVAP-2 team selected target farmer groups based on long lists prepared by DOAs and selected sub-sectors, in consideration of sector of major activities, number of expected participants, their size, gender-wise composition, situations of receiving extension services/technical supports from DOAs/donor agencies, etc. Contents and implementation procedures of Step 1 (Willingness and Readiness Confirmation) of EVAP EP for target farmers were also explained to DOAs (common to Activity 1-2).

DOA	Date of meeting	Target sub-sectors
Bethlehem	6th Oct. 2019	i) livestock (sheep/goat), ii) grape
Hebron	3rd Oct. 2019	i) vegetable
North Hebron	3rd Oct. 2019	i) grape
South Hebron	3rd Oct. 2019	i) vegetable
Yatta	3rd Oct. 2019	i) livestock (sheep/goat)

- Workshops on "Step-1: Willingness and Readiness Confirmation" for selected famers groups were organized in order to i) make participants understand the concept and activities of EVAP Extension Package; ii) confirm their interests/willingness for registration as participants for activities of the Package and management system within the group; iii) confirm their agricultural activities, problems and needs, and iv) explain important information for effective and sustainable farming as well as to confirm situation of information use by target farmers.

Name (responsible DOA)	Characteristics	Date and No. of participants for Workshop
Al Khader Grape Farmer Extension Group (Bethlehem)	Newly organized for EVAP activities with grape cultivation farmers in Al Khader Village. Problems realized by farmers: i) markets (market channels, competition and exports), ii) shortage of agricultural materials and equipment, iii) weather condition, iv) inappropriate and low-quality pesticides, v) price of seedlings, vi) damages by wild deer, etc.	14th Oct. 2019 18 (M: 14, F: 4)
Janata Livestock Farmer Extension Group (Bethlehem)	Newly organized for EVAP activities with livestock farmers around Janata Village. Problems realized by farmers: i) animal disease, ii) high mortality rate of newborns/lambs, iii) fluctuated market price of sheep, iv) high price of animal fodder, v) low-quality fodder imported from Israel.	15th Oct. 2019 28 (M: 19, F: 9)

	Sa'eer Farmer Extension Group (Hebron)	Newly organized for EVAP activities with vegetable farmers around Sa'eer area. Problems realized by farmers: i) water shortage (high water price, limited water volume), ii) high-price but low-quality pesticides and fertilizers, iii) competition against agricultural products from Israel, iv) difficulty in introducing new technologies due to lack of access.	20th Oct. 2019 10 (M: 8, F: 2)
	Agriculture Knowledge Leading Group in Halhoul (North Hebron)	Newly organized for EVAP activities with grape cultivation farmers around Halhoul area. Problems realized by farmers: i) markets, ii) low sales prices, iii) low soil fertility, iv) inappropriate selection of pesticides, v) difficulty in disease diagnosis, vi) possibility of price manipulation by traders, vii) high-price agricultural materials and inputs.	16th Oct. 2019 23 (M: 17, F: 6)
	Al Hejri Farmer Extension Group (South Hebron)	Newly organized for EVAP activities with vegetable farmers in Al Hejri area. Problems realized by farmers: i) weather condition, ii) high price of agricultural inputs, iii) low market prices, iv) competition against other agricultural producers, v) influences of fluctuated-price agricultural products from Israel, vi) soilborne disease, vii) shortage of labor force, viii) water shortage (July ~ October), ix) necessity of land consolidation, x) low quality of seeds and seedlings (no reliable seed/seedling suppliers).	13th Oct. 2019 25 (M: 15, F: 10)
	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	Newly organized for EVAP activities with livestock farmers around Yatta City. Problems realized by farmers: i) animal disease, ii) high mortality rate of newborns/lambs, iii) high price of animal fodder and medicine, iv) lack of knowledge on feeding program, v) water shortage and high price of water, vi) low reproductivity and low breeding technique, vii) unutilized sheep wool, viii) unstable price of sheep due to influence of imported sheep, ix) time-consuming veterinary laboratory tests.	23th Oct. 2019 23 (M: 23, F: 0)

3-5. Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4.

<4th Cycle>

- Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle was conducted to make them understand implementation procedure of "Awareness Creation Tour" (Step-2) (12th Nov. 2019). 2 C/Ps from Qalqilia DOA (2nd Cycle) who were involved in implementing the Step-2 of the Package were selected as lecturers for this guidance. They explained the implementation procedure of Step-2 with utilizing "e-Guidelines" which was prepared by EVAP-2 Team in consultation with relevant C/Ps. (common to Activity 1-2).
- Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle was conducted to give guidance on implementation procedure of "Market Opportunity Finding" and know-how of facilitation (26th Jan. 2020). 2 C/Ps from Tulkarem DOA (2nd Cycle) who were involved in implementing the Step-3 of the Package were selected as lecturers for this guidance. DOA extensionists for the 4th Cycle were requested to examine in advance where to visit in consideration with interests, farming situation and social practices, in collaboration with GD of Marketing. (common to Activity 1-2).

3-6. Provide extension services, including demo farms, based on the 'Provisional EVAP Extension Package' to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5.

<2nd Cycle>

<Step 7: Profitability Assessment>

- Workshops for target farmer groups were conducted with facilitation of DOA extensionists to assess farm management situation of farmers as well as to evaluate EVAP extension activities and their application for actual farming: 16th Jan. 2020 for Maythalon/Sanor Rainfed Farmers Extension Group (Jenin), 22nd Jan. for Qabatiya Farmers Extension Group (Jenin), 19th Jan. for Saida Cooperative Association (Tulkarem), 3rd Mar. for Bardala Women Extension Group (Tubas), 20th Jan. for Al-'Izab Farmers Extension Group (Qalqilia), and 21st Jan. for Qalqilia Livestock Extension Group (Qalqilia).

<3rd Cycle>

<Step 6: Extension Activities for Farming Improvement>

- Technical trainings, supports and follow-up were provided as follows:

Group	Subject
Dier Ballout Women Extension Group (Salfit)	- Compost making and application technique (including demonstration) (2nd time) (5th Sep. 2019). - Study tour to the farmer cultivating different varieties of onions (Tubas) and the another one cultivating baladi cucumber with grafted seedling (Jenin) (19th Dec. 2019).
Salfit Olive Farmers Extension Group	- Group selling technique (25th Sep. 2019). - Business matching with the olive oil processing company (Anabtawi Group) (2nd Oct. 2019). - Based on the sales agreement between the group and the company (Anabtawi Group) (Oct. 2019), 5 tons of olive oil were sold to Anabtawi Group in Dec. 2019.
Beit Dukkoo Grape Farmers Extension Group (Jerusalem)	- Study tour to i) Grape Festival and ii) Food Expo held in Hebron for the purpose of expanding market channels of grapes (22nd Sep. 2019).
Kharbatheh Musbah Olive Farmers Extension Group (Ramallah)	- Study tour to i) the shop selling stainless storage bottles for olive oil and ii) the another one selling secondhand tractors (3rd Sep. 2019).

<4th Cycle>

< Step2: Awareness Creation Tour>

- Participatory planning workshops were organized for six target farmer groups at their villages/areas to discuss destinations of Awareness Creation Tour with facilitation of the DOA extensionists of the 4th Cycle (13th, 14th, 17th, 18th, 19th, 21st Nov. 2019).
- Site visits to "good practice farmers" were organized for the target groups, where viewing their activities and discuss with them were done with facilitation of the DOA extensionists as follows:
  - Al Khader Grape Farmer Extension Group (Bethlehem): 17th Dec. 2019, visit to a farmer (Hebron) introducing early grape variety for enhancing shipment price, and another one diversifying grape variety for mitigating cultivation and market risks (both in Hebron).
  - Janata Livestock Farmer Extension Group (Bethlehem): 1st Dec. 2019, visit to visit to a farmer improving rearing of lamb (isolation technique) (Salfit) and the one producing/directly selling dairy products with introducing improved sheep breed (Qalqilia).
  - Sa'eer Farmer Extension Group (Hebron): 5th Dec. 2019, visit to a farmer

	introducing grafted seedlings for increasing yields and stabilizing production of tomato and cucumber (Bethlehem), the one diversifying cultivated crops by introducing vegetables with high market values, and the one keeping farm records for enhancing agricultural profits (both in Jericho). ➢ Agriculture Knowledge Leading Group in Halhoul (North Hebron): 3rd Dec. 2019, visit to a farmer diversifying stone fruits variety (Bethlehem), the one introducing specific grape variety for producing its leaves, and the one keeping farm records for enhancing agricultural profits (both in Jericho). ➢ Al Hejri Farmer Extension Group (South Hebron): 12th Dec. 2019, visit to a farmer introducing grafted seedlings for increasing yields and stabilizing production of tomato and cucumber (Bethlehem), the one diversifying cultivated crops by introducing vegetables with high market values, and the one keeping farm records for enhancing agricultural profits (both in Jericho). ➢ Yatta Agriculture Innovative Farmer Extension Group (Yatta): 8th Dec. 2019, visit to a farmer introducing improved sheep breed with high productivity, the one applying heating by using waste oil for reducing mortality of lambs and abortions, and the one taking feeding program with appropriate application of mixed feed for decreasing cost for fodder (all in Hebron). < Step3: Market Opportunity Finding> - Participatory planning workshops were organized for six target farmer groups at their villages to understand characteristics of different agricultural markets, discuss and decide target crops and destinations of market visits (4th, 5th, 6th, 9th, 10th, 24th Feb. 2020). - Market visits were organized for the target groups as follows: ➢ Al Khader Grape Farmer Extension Group (Bethlehem): 25th Feb. 2020, visit to Nablus-Baita Wholesale Market of fresh vegetables and fruits as well as a retailer shop in Ramallah and Bas-Baladi Shop of processed products in Al-Bireh. ➢ Janata Livestock Farmer Extension Group (Bethlehem): 27th Feb. 2020, visit to a specialized animal feed factory (Al-Hasad Co.) and Dana company for vet medicines in Nablus. ➢ Sa'eer Farmer Extension Group (Hebron): 18th Feb. 2020, visit to Ramallah and Nablus Wholesale Markets of fresh vegetables and fruits. ➢ Agriculture Knowledge Leading Group in Halhoul (North Hebron): 18th Feb. 2020, visit to Nablus Wholesale Market and a retailer shop of vegetables and fruits in Ramallah as well as a retailer shop dealing with processed grape products by women farmers. ➢ Al Hejri Farmer Extension Group (South Hebron): 26th Feb. 2020, visit to Bethlehem Wholesale Market and Nablus-Baita Wholesale Market of fresh vegetables and fruits. ➢ Yatta Agriculture Innovative Farmer Extension Group (Yatta): 23rd Feb. 2020, visit to a feed factory in Biet Ummar and Dana company for vet medicines in Nablus. **<Implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves>** - EVAP EP activities have been implemented by 1st, 2nd and 3rd Cycle DOAs themselves. Progress in their activities are shown below.
3-7. Monitor and evaluate the outcome of the extension services provided under the Activity 3.6.	- At the workshops for Step 7 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019) and the 2nd Cycle (Jan. 2020), EVAP extension activities and their application for actual farming were evaluated by participating farmers.

<Implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves>

- EVAP EP activities have been implemented by 1st, 2nd and 3rd Cycle DOAs themselves as follows:

DOA	Farmer Group	Date of implementing EVAP EP activities (Month/Date)					
		Step 1	Step 2 1) 2)	Step 3 1) 2)	Step 4	Step 5	Step 6
2018-2019							
Jericho	Auja Livestock Extension Group	4/2	4/9 4/26	5/10 6/28			
	Marj Na'jeh Farmers Extension Group	4/5	4/26 5/10	6/28 8/31	9/13	11/29	
Nablus	Beit Hasan Farmers Extension Group	5/3	7/10	Stop activities due to lack of interests.			
	Jama'een Farmers Extension Group	5/10	5/30 7/17	8/6 9/18	Aug.	9/12	12/11 12/24
	Beit Foreek Livestock Farmers Extension Group	8/1	8/28	9/20			
	Tell Women Farmers Extension Group	7/2	7/12 8/14	10/10			
Tubas	Kardala Women Farmers Extension Group	7/2	7/9 8/28	9/3 9/18	1/26	Stop activities due to lack of interests.	
	Akaba Men and Women Farmers Extension Group	7/5	8/1 8/15	8/30 10/14	Jul.	Stop activities due to lack of interests.	
Qalqilia	Jensafout Women Extension Group	4/24	6/27 7/25	9/6 9/25	12/13	7/9	8/25 9/25 12/5
	Qalqilia and Al-Naby Ilyas Farmers Extension Group	4/19	6/28 7/19	10/15 10/25	7/4	7/21	8/29 12/5
Tulkarem	Ateel Women Extension Group	5/5	6/27 7/19	10/2	Stop activities.		
	Thenabeh Farmers Extension Group	5/14	6/28 7/31	9/27 10/24	12/27		
Jenin	Al-Jalameh Farmers Extension Group	4/15	9/2 12/11				
	Al-Jalameh Women Extension Group	4/15	9/2 12/11	12/3 12/4	Merged into male group.		
2019-2020							
Qalqilia	Qalqilia livestock Farmers Extension Group	8/25	9/8 9/11	9/26 10/3	Stop activities due to delay in replenishment of Petty Cash.		
Tulkarem	Kufur Al-Labad Female Farmers Extension Group	7/1	7/21 8/22	Stop activities due to delay in replenishment of Petty Cash.			
	Tulkarem Female Farmers Extension Group	7/21	9/19 10/8	Ditto.			
South Jenin	Qabatiya Grape Farmers Extension Group	9/17	11/8 11/24				
	South Jenin Honey Bees Farmers Extension Group	9/23	12/5 12/9				
Salfit	Qarawret Bani Hassan livestock Farmers Group	9/3	9/8 9/11	11/25 12/3			
Jerusalem	Beit Soreek Farmers Extension Group	9/21	11/28 12/4				1/23

DOA	Farmer Group	Date of implementing EVAP EP activities (Month/Date)					
		Step 1	Step 2 1) 2)	Step 3 1) 2)	Step 4	Step 5	Step 6
	North-West Livestock Farmers Extension Group	11/6	11/27 12/2				
Ramallah	Beit Liqia Women Extension Group	9/5	10/31 11/7				
	Bani Zaid Livestock Farmers Extension Group	8/22	9/12 9/30				

<Note>
Step-1: Willingness and Readiness Confirmation
Step-2: Awareness Creation Tour (1) Planning workshop, 2) Tour)
Step-3: Market Opportunity Finding (1) Planning workshop, 2) Tour)

(4) Activities for Output 4

Activities (Plan)	Actual (Sep. 2019~ Feb. 2020)
4-1. Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender perspectives.	<u>**<4th Cycle>**</u> - At the workshops on Step-1 (Willingness and Readiness Confirmation) for target farmer groups of the 4th Cycle, problems and needs relating to farming activities were raised by participating farmers (Oct. 2019).
4-2. Collect and assess the existing technical training and extension materials and available equipment/ facilities.	- Completed in 2017.
4-3. Select appropriate technologies, good agriculture practices and equipment/ facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1.	<Good Practiced Farmers> - Interviews with "good practice farmers" were jointly done by C/Ps of Mass Media Dep. of GDoERD with assistance of EVAP-2 and concerned staff/extensionists of 4th Cycle DOAs as follows (Sep. – Nov. 2019) (common to Activity 1-2): ➢ Year-round cultivation and shipment of mint by combination of open field and green house cultivation (23rd Sep, Hebron) ➢ Cultivation/shipment of cut flowers (rose) with green house based on market needs (26th Sep., South Hebron) ➢ Cultivating high-quality cucumber and tomato with using soil disease tolerant grafted seedlings (29th Sep., Bethlehem) ➢ Cultivating different varieties of grapes based on market needs (30th Sep., North

	Hebron) ➢ Farming improved sheep breed with high productivity (1st Oct., Yatta) ➢ Introducing early grape variety for enhancing shipment price (3rd Nov., Hebron) ➢ Applying sorting system with setting grades for each grape variety (30th Oct., Hebron) ➢ Applying heating by using waste oil for reducing mortality of lambs and abortions (5th Nov., Hebron) ➢ Taking feeding program with appropriate application of mixed feed for decreasing cost for fodder (5th Nov., Hebron)
4-4. Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required.	- No activities have been done for last 6 months (Sep. 2019~Feb. 2020).
4-5. Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.	- Training materials for the 1st, 2nd and 3rd Cycles which could be farming manuals covering comprehensive steps or some steps depending on target crop were prepared. - Additional materials for the 4th Cycle will be prepared in accordance with necessity.

1.3. Achievement of Outputs

	Outputs	Status for achievement of indicators as of the end of Feb. 2020
1	The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. Understanding of C/Ps (Extension Taskforce members, the 1st, 2nd, 3rd and 4th Cycle DOAs) on EVAP EP seems to be deepen through their participating in TOTs/pre-training guidance and facilitating workshops/sessions for the target farmers, judging from that they have facilitated these workshops/sessions smoothly. JICA Experts mainly conducted sessions of TOTs/pre-training guidance related to EVAP EP for the 1st and 2nd Cycles with participation of the Taskforce members. On the other hand, the training sessions on "gender awareness and consideration" for extensionists of the 3rd and 4th Cycle DOA (November 2018 and October 2019, respectively), 2 staff of Rural Development Department under GDoERD facilitated in these sessions. At the pre-training guidance sessions for the 3rd Cycle, DOA extensionists of the 1st Cycle explained implementation procedures of the steps with their experiences. Those sessions for the 4th Cycle were facilitated by the DOA extensionists of the 2nd Cycle. In addition, the 1st, 2nd and 3rd Cycles DOA themselves have implemented the 2nd and 3rd round EVAP extension activities based on "EVAP web guideline" prepared by EVAP-2 Team. Thus, it could be said that capacities of DOA extensionists of understanding and implementing the Package have been enhanced to enough level through above variety of activities. 1.2. Budget ceilings which could be exclusively used for the 2nd and 3rd - round activities of EVAP EP by the DOAs were secured for 6 DOAs (1st and 2nd Cycles) for FY 2018, 9 DOAs (1st, 2nd and 3rd Cycles) for FY 2019 and 15 DOAs (1st, 2nd, 3rd and 4th Cycles) for FY 2020. GDoERD has regarded EVAP EP as the important extension tool and facilitated its application to annual extension plans. Utilization of EVAP EP was included and target sub-sectors were selected in annual extension plans for 6 DOAs for FY 2018, 9 DOAs for FY 2019 and 15 DOAs for FY 2020.
2	The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	- EVAP-2 team made the 1st revised version of EVAP Extension Package, which was approved in the 2nd JCC held on 4th Jan. 2017. - Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC held on 27th July 2017. - This approved EVAP EP has been applied for the 2nd, 3rd and 4th Cycles without further modification. - Since the revised Package was established in full consideration of the results of field activities, it could be said that sufficient level of achievements has been made for this Output 2.
3	Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and	3.1. EVAP EP were reflected into annual extension plans FY 2018 (1st and 2nd Cycle DOAs), FY 2019 (1st, 2nd and 3rd Cycles) and FY2020 (1st, 2nd, 3rd and 4th Cycles) and target sub-sectors were selected. In line with their annual extension plans and target sub-sectors, target farmer groups (14 groups for FY2018 and 10 groups for FY2019) were selected and EVAP EP activities have been conducted by respective DOAs. EVAP EP activities for FY2020 will be started around Apr. 2020 by 15 DOAs. 3.2. Number of farmers participating in respective steps of EVAP EP are as follows: <1st Cycle (Jericho, Nablus, Tubas): 6 farmer groups (FGs)> Step / Male / Female / Total

Outputs	Status for achievement of indicators as of the end of Feb. 2020

conditions.

Step 2: Planning workshop	34	26	60
Step 2: Tour	51	51	102
Step 3: Planning workshop	31	50	81
Step 3: Market visit	49	39	88
Step 4: Family Resource & Gender Analysis	41	35	76
Step 5: Action Planning	37	43	80
Farm Record Keeping	24	28	52
Business matching & tour	22	43	65
Technical training, supports, follow-up	148	97	245
Step 7: Profitability Assessment	25	34	59
Total number of participants	462	446	908
Number of beneficiaries (at least one time participation)	165	118	283
Total number of sessions			70
Average number of participants per session			13.0

<2nd Cycle (Jenin, Tulkarem, Qalqilia): 6 FGs >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	62	18	80
Step 2: Planning workshop	66	12	78
Step 2: Tour	96	35	131
Step 3: Planning workshop	71	25	96
Step 3: Market visits	105	30	135
Step 4: Farming Improvement Planning	74	27	101
Step 5: Farm Record Keeping	59	26	85
Step 6: Extension Activities (Training & Technical Supports)	266	133	399
Step 7: Profitability Assessment	40	19	59
Total number of participants	839	325	1,164
Number of beneficiaries (at least one time participation)	306	85	391
Total number of sessions			77
Average number of participants per session			15.1

Note: 2 farmer groups (37 male members) in Khan Yunis DOA in GS were selected as target for the 2nd Cycle. Since only Step 1 activities were implemented, number of these farmers and their sessions are not included in the above table.

<3rd Cycle (Ramallah/Al Bireh, Jerusalem, Salfit): 6 FGs >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	78	22	100
Step 2: Planning workshop	63	28	91
Step 2: Tour	91	32	123
Step 3: Planning workshop	69	29	98
Step 3: Market visits	87	52	139
Step 4: Farming Improvement Planning	50	22	72

Outputs	Status for achievement of indicators as of the end of Feb. 2020

Step 5: Farm Record Keeping	43	21	64
Step 6: Extension Activities (Training & Technical Supports)	320	86	406
Total number of participants	758	271	1,029
Number of beneficiaries (at least one time participation)	267	91	358
Total number of sessions			69
Average number of participants per session			14.9

<4th Cycle (Bethlehem, Hebron, North Hebron, South Hebron, Yatta): 6 FGs>

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	110	35	145
Step 2: Planning workshop	81	37	118
Step 2: Tour	94	46	140
Step 3: Planning workshop	93	28	121
Step 3: Market visits	87	27	114
Total number of participants	465	173	638
Number of beneficiaries (at least one time participation)	222	56	278
Total number of sessions			30
Average number of participants per session			21.3

As mentioned above, enough farmers have participated in activities of EVAP EP.

3.3. Several cases that farmers have applied knowledge, techniques and know-hows obtained from activities of the Package (good practice farmers visited by "awareness creation tours", market visits, technical trainings, etc.) have so far been heard from target farmers and DOA extensionists.
According to the results of Step 7 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019), the ratios of farmers who have applied information and techniques from EVAP EP activities for their farming activities exceed 70% in all Steps. In addition, all respondents have applied information/techniques obtained from any of the Steps. Many examples of applications were raised by participating farmers at the workshops of this Step 7.
According to the results of Step 7 for target farmer groups of the 2nd Cycle (Jan. 2020), around 85% of participating farmers answered that they have applied techniques and information obtained from EVAP activities (study tours, planning sessions, lectures for technical training, technical training manuals/materials, etc.) for their actual farming. Many examples of applications were raised by participating farmers at the workshops of this Step 7.

4	The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and	4.1. At the Step 4 (Farming Improvement Planning), target crops were selected and necessary technical trainings for Step 6 were discussed based on target farmers' needs. In consideration of these needs, various technical training materials which could be cultivation and farming manuals covering comprehensive steps or some steps depending on target crops/products have been prepared.

Outputs	Status for achievement of indicators as of the end of Feb. 2020
listed in an organized manner.	In the fields of livestock and soil management, technical manuals on specific issues (e.g. semen freezing technique, on-farm soil diagnosis, etc.) which might have high demands from farmers were also prepared. 4.2. Technical manuals were prepared with fully incorporating opinions of concerned DOA extensionists and staff of technical departments through Extension/Technical Taskforce Meetings and pre-training guidance, etc. Some manuals were prepared by DOA extensionists and/or technical staff of MOA themselves. On the other hand, according to the results of evaluation at Step 7 by target farmers of the 1st Cycle, nearly all farmers showed their satisfactions on Step 5 (Farm Record Keeping) and Step 6 (Extension Services and Technical Trainings) of EVAP activities which used technical manuals (58 out of 59 respondents for Step 5, 54 out of 55 respondents for Step 6). Thus, it could be thought that farmers positively evaluate technical manuals prepared under EVAP activities. At Step 7 for the 2nd Cycle, all participating farmers showed their satisfactions (25 for very satisfied and 27 for satisfied) on technical training manuals/materials provided by EVAP.

1.4. Achievement of the Project Purpose

Increase in net income from agriculture of the target farmers as the Project Purpose was checked at the workshops of Step 7 for target farmers of the 1st Cycle (Feb. & Mar. 2019) and 2nd Cycle (Jan. 2020). Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP activities (baseline status).

Net agricultural profits with EVAP have been increased for 2 years by 46.1% and 60.9% for 1st Cycle and 2nd Cycle in comparison with those without EVAP. Thus, annual increases in agricultural net profits are 20.9% and 26.8% for 1st Cycle and 2nd Cycle respectively, which exceed target figure of 8.0% increase of the Project Purpose. While 17 out of 59 farmers (10.0%) have not obtained increase (15 for no change and 2 for decrease) in their net profits for the 1st Cycle, only 5 out of 56 famers (8.9%) have not obtained increase (5 for no change and no one for decrease) in their net profits for the 2nd Cycle.

Change in Agricultural Net Profits After/With EVAP

	Total Net Profit (NIS/Year) (Present)	Total Net Profit (NIS/Year) (Baseline)	No. of Sample Households (HH)	Average Net Profit (NIS/Year/HH) (Present)	Average Net Profit (NIS/Year/HH) (Baseline)	% (Present/ Baseline)	% (difference)
1st Cycle (6 FGs)	1,115,419	763,233	59	18,905	12,936	146.1%	+46.1%
2nd Cycle (5 FGs)	1,830,175	1,137,440	56	32,682	20,311	160.9%	+60.9%

1.5. Changes to the risks as identified under the PDM and Actions taken for their mitigation

Not applicable.

1.6. Progress in Actions undertaken by JICA

1.7. Progress in Actions undertaken by Ministry of Agriculture, Palestine

<Progress and countermeasures>

(1) Arrangement for an office for the Japanese Expert Team and necessary facilities.
New office space at the MOA main building was offered to EVAP-2 Team (including Japanese Experts) in Apr. 2018.

(2) Assignment of the counterparts.
Project Director (Assistant Deputy Minister for Technical Affairs) and Project Manager (Director General, GDoERD) were assigned. Members of 3 Taskforces (Monitoring, Technical, Extension) and field level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed.

Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned (Apr. 2017).

Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017.

All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities.

Field level C/Ps for 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, Yatta, South Hebron (Dora)) were appointed in Nov. 2019.

1.8. Progress of Environmental and Social Considerations

Not applicable

1.9. Progress of Considerations on Gender/ Peace building/ Poverty Reduction

<Gender Consideration for the Step-1 for the 4th Cycle>

Selecting target farmer groups

Inclusion of women/women-dominant groups were considered for selecting candidate target groups. Out of 6 target farmer groups, 5 groups include female members.

Workshop on "Willingness and Readiness Confirmation" for target farmers

- Family members (men, women, or both) in household engaged in agricultural activities were checked with members of target farmer groups. Some tendencies were found that i) both men and women are engaged in harvesting/picking for grape groups; ii) both men and women are engaged in harvesting/picking and sowing/transplanting for vegetable groups; and iii) women are engaged in milking and milk processing for livestock groups.
- Current situations of use of information necessary for farming was also checked with members of these groups. It was found that men collect necessary external information (new production technique, market information, farm inputs, support program, climate/natural condition) in most of target farmer families and women's access to this information was limited. At the workshops for these groups, it was explained to target farmers that EVAP-2 would mitigate those information gaps through implementing EVAP EP activities.

TOT on "Gender Awareness and Consideration" for DOA extensionists

Training session on "Gender Awareness and Consideration" (Step 1-3 of the Package) was conducted for extensionists of the 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, South Hebron and Yatta) on 21st Oct. 2019 with following contents. Counterparts from Rural Development Department of GDoERD facilitated the session with assistance of EVAP-2 Team:

1) Necessity of gender consideration: concept of gender, significance of women and necessity of gender consideration in agriculture sector.

2) Gender viewpoints to be considered in EVAP-2: i) improve access/control to resources (knowledges, technologies, training opportunities, agricultural inputs, etc.), ii) enhance work efficiency and productivities of family members, iii) facilitate women's involvement in decision-making in family, and iv) facilitate gender awareness of male members and local communities.

3) Gender consideration in EVAP-2: i) introduction of gender consideration measures applied for the 1st and 2nd Cycle activities, and ii) exercise/discussion on a) gender-oriented problems in agricultural sector in Palestine, b) gender consideration measures to be applied for respective steps of the Package in consideration of socio-economic situations of target farmer groups.

4) Introduction of gender analysis tools and evaluation method with gender viewpoints: activity profile, daily activity calendar, access to and control of resources, and evaluation methods with gender viewpoints, etc.

Based on explanation and discussion, gender consideration measures to be applied for target groups were raised by respective DOAs as follows:

Al Khader Grape Farmer Extension Group (Bethlehem)

- Female members are more or less involved with all processes of grape cultivation. Particularly, major players for harvesting grape leaves are women. Women are involved with decision making process in certain extent.
- Since target area is near to Bethlehem city, there are many sales channels (wholesale markets, retailers, direct selling, etc.) and women are involved with selling their products.
- There is no problem for female members siting with male ones at the meetings. Venue for meeting is easily accessed by female members.

Janata Livestock Farmer Extension Group (Bethlehem)

- Women are involved with cleaning animal sheds, feeding animals, milking and milk processing. However, women are rarely involved with decision making.
- Target farmers belong to a Bedouin community which often has conservative culture and custom. This point should be taken into consideration.
- It requires to set the venue enabling female farmers to participate in meetings and trainings. A female leader was appointed for facilitating communication among female members.
- Intentions of female members should be checked and considered when schedules of study tour and market visit are decided.

Sa'eer Farmer Extension Group (Hebron)

- Relatively poor people are engaged in agricultural activities in the target area. Target farmers (not only female

ones) have limited access to extension services and information

- Women are basically involved with all steps of agricultural activities except pesticide application and marketing/selling products which are done by men. Target area has problem of water shortage, which increases women's labor load regarding irrigation.
- There is no problem for female members siting with male ones at the meetings. Some female members feel hesitated to be taken their photos during the meetings. There are some female members having difficulty in reading and writing.
- Since women have difficulty in going out when their husbands stay at home, it is better to set schedules for tours and trainings with avoiding Saturday and Israeli's holidays (about 30% of men in the target area work in Israel).
- There is no need to arrange a separate additional bus for female members for the tour and market visit, internal transportation means from the center of the target area to homes of respective members should be considered if they come back from the tour and visit in the dark time.

Agriculture Knowledge Leading Group in Halhoul (North Hebron)

- Women are involved in harvesting of grape leaves and fruits, pruning, weeding, processing and marketing of grape processed products. Women cannot choose appropriate market channels due to information shortage of markets and business providers, and their limited free time.
- There is no problem for female members siting with male ones at the meetings. Target female farmers are relatively senior and not really engaged in household chores, thus they could be flexible for times for meetings and tours.
- A female leader was appointed for facilitating communication among female members.

Al Hejri Farmer Extension Group (South Hebron)

- Women are actively involved with agricultural activities. While men are mainly engaged in pesticide spraying and marketing/selling products, women are mainly engaged in sowing, transplanting and picking/harvesting based on their inherited culture, customs and traditions.
- Women farmers' access to technical information and agricultural technical trainings are limited.
- There is no problem for female members siting with male ones at the meetings.
- Date and time convenient for women (09:30-12:00 on Thursday) should be considered for facilitating their participation in the EVAP activities. A female leader was appointed for facilitating communication among female members.

Yatta Agriculture Innovative Farmer Extension Group (Yatta)

- Retired teachers and public employees run sheep farming in a business manner.
- Women's involvement in sheep raising activities is limited. Some of them are engaged in feeding, milking and milk processing.

Trainings for women are considered with confirming their involvement in sheep raising activities and needs in accordance with necessity. Since Yata local community is conservative, it might be difficult for women to participate in activities together with men. Measures such as facilitation by female extensionists and training

activities exclusively for female farmers should be considered.

<Effectiveness of Gender Consideration Measures for the 2nd Cycle>

Sessions for Step 7 (Profitability Assessment) of the EVAP EP were conducted (Jan. 2020) for 5 farmer groups of the 2nd Cycle with following participants to assess farmers' profits by EVAP activities as well as to evaluate such issues as information use, farmers' satisfactions on EVAP activities, improvement of problems, and effectiveness of gender consideration.

Targets	Participants (Respondents)		
	Male	Female	Total
Maythalon/Sanor Rainfed Farmers Extension Group (Jenin)	6	3	9
Qabatiya Farmers Extension Group (Jenin)	10	0	10
Saida Cooperative Association for Processing (Tulkarem)	0	11	11
Al-'Izab Farmers Extension Group (Qalqilia)	11	0	11
Qalqilia Livestock Extension Group (Qalqilia)	11	0	11
Total	38	14	52

Regarding effectiveness of gender consideration, following questions with gender viewpoints were asked to participating farmers of the 2nd Cycle.

A. Improve women's access/control to resources (for female members)

A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?
A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?
A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?
A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?
A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?

B. Improve division of works/responsibilities of family members and enhance their work efficiency and productivities

B-1. Have workloads of family members (particularly female farmers) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?

C. Facilitate women's involvement in decision-making in family

C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?
C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?

D. Facilitate gender awareness of male members and local communities

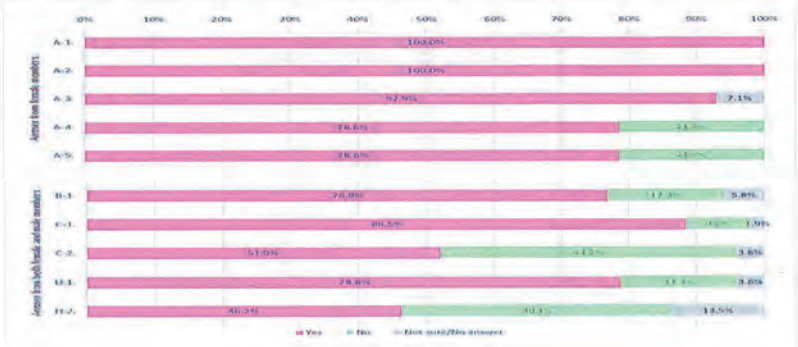
D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?
D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?

Results of aggregating answers from farmers are shown below.

Regarding questions A., nearly all women answered that "they could easily participate in EVAP activities"(A-1), "their opinions were appropriately taken and reflected to tour and training plans" (A-2) and "they could obtain

necessary information/knowledge/skills through EVAP activities" (A-3). It could be thought that gender consideration measures taken by EVAP have facilitated women's active participation in activities and access to resources (information, knowledge and skills).

Regarding other questions, 88.5% of respondents answered "they shared information provided by EVAP with other family members"(C-1) and 78.8% of them answered "they have had more communications with other family members for improving their farming activities" (D-1). In implementing EVAP activities, DOA extensionists and EVAP-2 Team repeatedly requested participating farmers to share the information provided by EVAP with other family members. This could be thought to lead to the answers of C-1 and D-1.



1.10. Other remarkable/ considerable issues related/ affect to the Project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

EVAP-2 activities for Gaza Strip have been suspended due to its political instability.

8th JCC meeting planned to be held on 10th March 2020 was postponed since both some JCC members (both Palestinian and Japanese sides) could not attend the meeting due to Coronavirus-related issues.

2. Delay of Work Schedule and/ or Problems

Not applicable.

3. Modification of the Project Implementation Plan (see PO and PDM as per attached)

3.1. Plan of Operation (PO)

Some modification (project period is extended as ver. 4 of the PO).

3.2. Other modification on detailed implementation plan

Not applicable.

4. Preparation of the Palestinian side toward after completion of the Project

(1) Policy

"EVAP Extension Package" which was developed by the EVAP-1 Project and has been practiced by the EVAP-2 Project was incorporated into "Palestinian National Agricultural Extension Strategy (PNAES) 2016-2019" (March 2016).

"National Agriculture Sector Strategy (2017-2022)" was prepared by Ministry of Agriculture. This EVAP-2 Project is in line with this Strategy, particularly its strategic objectives 3 (Increase in agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security), 4 (Improvement of female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains) and 5 (Development of effective and efficient institutional and legal frameworks).

(2) Institutional aspect

EVAP Extension Package (EP) were reflected into annual extension plans of target DOAs (1st/2nd Cycle DOAs for FY 2018, 1st/2nd/3rd Cycle DOAs for FY 2019 and 1st/2nd/3rd/4th Cycle DOAs for FY 2020).

(3) Technical aspect

Based on knowledge, know-hows and experiences acquired from implementation of the 1st Round EVAP EP activities with direct assistance from EVAP-2 Team as well as the Guideline of the EVAP EP prepared by EVAP-2 Team, the 2nd and 3rd Round EVAP EP activities have been implemented by the extensionists of the 1st/2nd/3rd Cycle DOAs themselves. The e-Guideline of the EVAP EP which the extensionists could refer to is under preparation.

(4) Financial aspect

Budget ceilings which could be exclusively used for the 2nd and 3rd Round EVAP EP activities were secured for FY 2018, 2019 and 2020.

System for smooth budget request and disbursement for implementing EVAP EP has been improved (e.g. preparation of "manual on budget request and disbursement for EVAP EP", introduction of "petty cash system", etc.)

Project Monitoring Sheet I ver.7 (Based on Project Design Matrix ver. 4)

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development
Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip
Period of Project: July 2016 - September 2021 (5 years)
Project Site: All Districts of West Bank and Gaza Strip

Version 8
Dated 13 September 2020

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
In all Districts of West Bank & Gaza Strip, the number of farmers who have experienced a rise in their income through the benefits of extension services based on the Improved EVAP Extension Package have increased.	The net income from agriculture have increased among significant number (to be determined) of small and medium sized farmers in all Districts of West Bank & Gaza Strip.	Ex-post evaluation		-	-
Project Purpose					
In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen based on the Improved EVAP Extension Package.	The net income*1 from agriculture*2 have increased among the targeted small and medium sized farmers by 8.0% at the time of Project completion*3. **1: Current (nominal) prices will be applied.* **2: It will specify agriculture activities related to target crops under EVAP-2.* **3: Data on profitability increase of target crops under EVAP-2 for 2 years will be calculated by the target farmers based on their farm records (not at the time of Project completion).*	Baseline survey, Project evaluation report (End-line Survey)	1. There are no natural disaster incidents in the region.	Achievement with sufficient level. According to the evaluation results of the 1st and 2nd Cycle activities, average annual increases in agricultural net profits of target farmers due to EVAP activities are 20.9% and 26.8%, respectively.	
Outputs					
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. All targeted MoA and DoA personnel*1 (i.e. the participants of Activity 1.2) demonstrate good understanding of EVAP Extension Package, including its principles and objectives. **1: Those nominated as Project counterparts.* 1.2. All DoA annual plans reflect the EVAP Extension Package.	Presentation materials used under Activity 1.4 Interviews DoA annual plans	1. There are no drastic climatic changes. 2. The market value of agricultural produce does not decline drastically.	Achievement with sufficient level. Understanding of C/Ps on EVAP EP seems to be deepened as related activities have been conducted. Sufficient level of achievement in terms of reflecting EVAP EP into annual plans of the 1st, 2nd, 3rd and 4th Cycle DOAs.	
Output 2: The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	2.1. The Provisional EVAP Extension Package incorporate measures to ensure that its extension services reach out to small and medium sized farmers. 2.2. The improved EVAP Extension Package is finalized and approved by JCC.	Revisions made through Activities 2.1 through 2.5 and their reasons. JCC minutes		Achieved with sufficient level. The 1st revised EVAP EP was approved in the 2nd JCC. It was revised based on the results of the 1st Cycle activities and approved in the 3rd JCC. This approved EVAP EP has been applied for the 2nd, 3rd and 4th Cycles without further modification.	

Project Monitoring Sheet I ver.7 (Based on Project Design Matrix ver. 4)

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development
Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip
Period of Project: July 2016 - September 2021 (5 years)
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Version 8
Dated 13 September 2020

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. All DoAs implement their annual plan without direct support of the Project.	M&E Report of the DoAs one year after implementation of the cycle under Activities 3.1-3.6.		Certain level of achievement. EVAP EP activities have been conducted for 14 farmer groups by the 1st and 2nd Cycle DOAs themselves with MOA budget of FY 2018. Activities for additional 8 farmer groups have been conducted by the 2nd and 3rd Cycle DOAs with FY2019 budget. EVAP activities for FY 2020 will be started around Apr. 2020 by 15 DOAs inluding 4th Cycle ones.	
	3.2. Appropriate levels (to be determined) of participation of small and medium sized farmers is observed under Activity 3.6.	Records kept by the extensionists		Sufficient level of achievement. See Summary Table for details of related activities and number of participating farmers.	
	3.3. Significant number/proportion (to be determined) of small and medium sized farmers adopt the suggested techniques/know-hows.	Results of Activity 3.7 (End-line Survey Report)		Sufficient level of achievement. According to the results of Step-7 for 1st Cycle and 2nd Cycle, around 70% of farmers participating in the session have applied information/techniques from all steps of the EVAP EP activities for their farming activities for the 1st Cycle, and around 85% of them have applied techniques/information obtained from EVAP activities (study tours, planning sessions, lectures for technical training, technical training manuals/materials, etc.) for their actual farming for the 2nd Cycle.	
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. Farming manuals that cover the comprehensive steps from planting to marketing for each relevant agricultural products, based on the needs of the small and medium sized farmers, have been developed.	Farming manuals		Sufficient level of achievement. Variety of training materials which could be farming manuals covering comprehensive steps or some steps depending on target crops/products were prepared based on needs of target farmers of the 1st, 2nd and 3rd Cycles.	

Project Monitoring Sheet I ver.7 (Based on Project Design Matrix ver. 4)

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development
Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip
Period of Project: July 2016 - September 2021 (5 years)
Project Site: All Districts of West Bank and Gaza Strip

Version 8
Dated 13 September 2020

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
	4.2. The farming manuals receive positive feedback from the extensionists and farmers.	Questionnaire survey among extensionists and farmers		Sufficient level of achievement. Technical manuals were prepared with incorporating opinions of concerned DOA extensionists and staff of technical departments. Some manuals were prepared with their initiatives. According to the evaluation results of the 1st and 2nd Cycle activities, nearly all farmers showed their satisfactions on technical trainings which used technical manuals prepared by EVAP.	

Activities	Inputs		Important Assumption
	The Japanese Side	The Palestinian Side	
1.1 Establish Task Forces for implementation of the Project. 1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept. 1.3 Support development of annual extension plans for 2 years by the targeted DoAs with a view to reflecting the EVAP Extension Package in the plans. 1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3. 2.1 Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services. 2.2 Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1. 2.3 Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package. 2.4 Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis.	a. Dispatch of Japanese Experts 1. Chief Advisor/ Farm management (1)/ Agricultural Policy/ Fruit production 2. Deputy Chief Advisor/ Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/ Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Animal husbandry/Veterinary/ Animal disease diagnosis 8. Water-saving/ Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/ Planning and reporting system development b. Counterpart training program Trainings (2 times) in Japan c. Equipment and materials Vehicles, other equipment and materials to be agreed upon in consideration of needs. d. Local operation costs: budget related to the Project activities	a. Personnel (Project counterpart) 1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture b. Office space and necessary facilities at Ramallah for Experts c. Local cost (to be specified) Each targeted District will utilize the available resources for implementing "EVAP Extension Package"-based extension services after the second year of each targeted District.	1. Price of agricultural inputs does not suddenly rise.
				Pre-Conditions	

Project Monitoring Sheet I ver.7 (Based on Project Design Matrix ver. 4)

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development
Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip
Period of Project: July 2016 - September 2021 (5 years)
Project Site: All Districts of West Bank and Gaza Strip

Version 8
Dated 13 September 2020

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1. 4.4 Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required. 4.5 Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.					

1) EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Th. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.
2) Regarding the Activities under Output 2, the Project will initially revise the "EVAP Extension Package" in those Districts in which the same subsectors of agriculture as the Districts under the previous phase of EVAP (i.e. irrigated vegetable and livestock) is practiced, in order not to introduce unnecessary elements of complication.
3) Regarding the Activities under Output 3,the Project provides direct support to implement the first cycle of the "EVAP Extension Package" for each District in West Bank. Thereafter, each DOA would be held responsible for independent implementation of "EVAP Extension Package"-based extension services with periodical follow-up by the MOA and Japanese Experts.
4) When targeting Gaza Strip for activities under Output 3, where accessibility is limited for the Japanese Experts due to security advisory, the DOA officials will be invited to West Bank Districts to take part in training or SMS and extensionists of the West Bank Districts provide training in Gaza in order to enable them to independently implement their extension activities with periodical follow-up by the MOA and Japanese Experts. Objectively verifiable indicators for Gaza Strip will be measured for Output 1 only.
5) Refers to those equipment/facilities introduced under EVAP1, including compost-making facilities, silage-making machineries, equipment for soil analysis laboratory, AI service-related equipment.

Project Monitoring Sheet II ver. 8 (based on Plan of Operation ver.4)

Version 8
13 September 2020

Project Title: The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Monitoring

Inputs	Phase / Year	1st Period / 2nd Period / 3rd Period: 2016 – 2017 – 2018 – 2019 – 2020 – 2021	Remarks	Issue	Solution
Expert					
Chief Advisor/ Farm Management (1)/ Agricultural Policy/ Fruit production	Plan		Their actual assignment schedules/periods were modified in consideration of progress of the Project activities.	None.	
	Actual				
Deputy Chief Advisor/ Farm Management (2)/ Field Crop Cultivation (1)	Plan				
	Actual				
Extension Planning/Training Materials Development	Plan				
	Actual				
Gender/Farmers Organizations	Plan				
	Actual				
Vegetable Production (1)	Plan				
	Actual				
Vegetable Production (2)/ Field Crop Cultivation (2)	Plan				
	Actual				
Animal Husbandry/ Veterinary/ Animal Disease Diagnosis	Plan				
	Actual				
Water-Saving/ Water Use Techniques/ Soil Management	Plan				
	Actual				
Marketing	Plan				
	Actual				
Monitoring/ Planning and Reporting System Development	Plan				
	Actual				
Equipment					
Vehicles	Plan		Minibus and 4WD pickup truck were procured, and are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. Eight 4WD pickup trucks provided to MOA in March were delivered to the 3rd and 4th	Status of using these cars by respective DOAs.	
	Actual				
Facilities/equipment necessary for effective extension	Plan				
	Actual				
Training in Japan			1st training in Japan was held in Oct. 2018. 2nd training in Japan is planned to be conducted in Oct. 2020		
Training for Counterpart Personnel	Plan			Status of preparing the 2nd training.	
	Actual				

Activities / Sub-Activities	Year	2016 – 2017 – 2018 – 2019 – 2020 – 2021	Responsible Organization: Japan	Responsible Organization: Palestine	Achievements	Issue & Countermeasures
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.						
1.1 Establish Task Forces for implementation of the Project.	Plan		JICA	MOA	Completed as scheduled.	None.
	Actual					
1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and District Agriculture Offices (DoAs).	Plan		JICA	MOA	Series of Taskforce (Extension, Technical, Monitoring) Meetings, pre-training guidance/meetings with 1st, 2nd, 3rd and 4th Cycle DOAs were held.	None.
	Actual					
1.3 Support development of annual extension plans by the targeted DoAs.	Plan		JICA	MOA	Meetings to support for and monitor implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves.	Continuous follow-up implementation of EVAP EP by 1st, 2nd, 3rd and 4th Cycle DOAs.
	Actual					
1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans.	Plan		JICA	MOA	Not yet implemented as scheduled.	None.
	Actual					
Output 2:The EVAP Extension Package[1] is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank & Gaza Strip.						
2.1 Review the EVAP Extension Package, with a view to mainstreaming gender and improving the effectiveness of extension services.	Plan		JICA	MOA	Completed as scheduled.	None.
	Actual					
2.2 Propose a Revised Draft EVAP Extension Package.	Plan		JICA	MOA	Completed as scheduled (The 1st revised EVAP EP was approved in the 2nd JCC).	None.
	Actual					
2.3 Select farmer groups from among Districts in the West Bank for the purpose of revision of the EVAP Extension Package.	Plan		JICA	MOA	Completed as scheduled (Target farmer groups for the 1st Cycle were selected).	None.
	Actual					
2.4 Provide extension services based on the Revised Draft EVAP Extension Package on a trial basis.	Plan		JICA	MOA	Completed with a trial basis. See 3-6 for progress in extension service activities for target farmers.	None.
	Actual					
2.5 Develop the 'Provisional EVAP Extension Package'.	Plan		JICA	MOA	EVAP EP was modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC. Outlines of eGuideline of EVAP EP and website were developed. Their finalization and operations should be followed up	None.
	Actual					
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.						
3.1 Select target Districts and new subsectors to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan		JICA	MOA	Target Districts for the 1st, 2nd, 3rd and 4th Cycles were selected.	None.
	Actual					
3.2 Conduct survey on agricultural practice including gender roles in the target Districts.	Plan		JICA	MOA	EVAP-2 team conducted the basic survey to grasp current situations for 1st and 2nd Cycles. DOAs selected target sub-sectors for 3rd and 4th Cycles	None.
	Actual					
3.3 Review the results of Activity 3.2 and categorize the farmer groups in the target areas.	Plan		JICA	MOA	Basic inforation of Districts/areas was considered for categorizing and selecting target farmer groups.	None.
	Actual					
3.4 Select the farmer groups to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan		JICA	MOA	Target farmer groups for the 4th Cycle were selected in Sep. - Oct. 2019.	None.
	Actual					
3.5 Develop the details in each extension step.	Plan		JICA	MOA	Done for 3rd Cycle. Ongoing for 4th Cycle.	None.
	Actual					
3.6 Provide 'Provisional EVAP Extension Package'-based extension services, including demo farms, to the selected farmer groups.	Plan		JICA	MOA	Done for 2nd and 3rd Cycles. Ongoing for 4th Cycle.	None.
	Actual					
3.7 Monitor and evaluate the outcome of the Activity 3.6.	Plan		JICA	MOA	Evaluations for the 2nd Cycle activities were conducted as Step-7.	None.
	Actual					
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.						
4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers.	Plan		JICA	MOA	Problems/needs were raised by target farmers of the 4th Cycle.	None.
	Actual					
4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities.	Plan		JICA	MOA	Done as scheduled.	None.
	Actual					
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced.	Plan		JICA	MOA	Ongoing as scheduled.	None.
	Actual					
4.4 Verify and conduct field demo farms, as required, the applicability of the newly introduced technology based on the verification criteria.	Plan		JICA	MOA	Done for the 3rd Cycle.	None.
	Actual					
4.5 Develop farming manuals that cover the comprehensive steps from planting to marketing.	Plan		JICA	MOA	Done for the 3rd Cycle.	None.
	Actual					
Duration/Phasing	Plan					
	Actual					

Monitoring Plan	Year	2016 – 2017 – 2018 – 2019 – 2020 – 2021	Remarks	Issue	Solution
Monitoring					
Joint Coordinating Committee	Plan		8th JCC was postponed since some JCC members could not attend the meeting due to Coronavirus-related issues.		
	Actual				
Set-up the Detailed Plan of Operation	Plan				
	Actual				
Submission of Monitoring Sheet	Plan				
	Actual				
Monitoring Mission from Japan	Plan				
	Actual				
Joint Monitoring	Plan				
	Actual				
Post Monitoring	Plan				
	Actual				
Reports/Documents					
Inception Report	Plan				
	Actual				
Progress Report	Plan				
	Actual				
Training Materials	Plan				
	Actual				
Project Completion Report	Plan				
	Actual				
Public Relations					
Establishment and Operation of Web Site	Plan				
	Actual				
Seminars	Plan				
	Actual				

[1] **EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.**

To: The Chief Representative, JICA Palestine Office

PROJECT MONITORING SHEETS

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Palestine

Version 9

Date of Submission: 30 March 2021

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ABBREVIATIONS

C/P	Counterpart
DOA	District of Agriculture
-	Dunum (land unit, 1 dunum=approx. 900m2)
EP	Extension Package
EVAP	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 1)
EVAP Phase 2	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)
FAO	Food and Agriculture Organization
GDoERD	General Directorate of Extension and Rural Development
Global GAP	Global Good Agricultural Practice
GS	Gaza Strip
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
MOA	Ministry of Agriculture
M/M	Minutes of Meetings
NARC	National Agriculture Research Center
NIS	New Israeli Shekel
NGO	Non-Governmental Organization
ODA	Official Development Assistance
PA	Palestinian Authority
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussion
SHEP	Smallholder Horticulture Empowerment Program
SMS	Subject Matter Specialist

I. Summary

1. Progress

1.1. Progress of Input

Table 1 Inputs – Japanese side

Inputs	Plan (PDM Ver. 5)	Actual (Aug. 2016~Feb. 2021)
(1) Experts	123.5 man-months in total 1. Chief Advisor/Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production 6. Animal husbandry 7. Water-saving/Water use techniques 8. Marketing 9. Training materials development 10. Monitoring/Planning and reporting system development	Period 1 (Aug. 2016~Apr. 2018): 57.32 man-months in total 1. Chief Advisor/ Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2) 7. Animal husbandry 8. Water-saving/Water use techniques 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development Period 2 (Jun. 2018~ Aug. 2019): 36.43 man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Veterinary/ Animal disease diagnosis 8. Water-saving/Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development 12. Training in Japan Period 3 (Sep. 2019~): 18.08 man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Veterinary/ Animal disease diagnosis 6. Training materials development 7. Monitoring/Planning and reporting system development 8. Training in Japan
(2) Training in Japan/ third countries	Training in Japan: 2 times	- 1st training in Japan was held 16th- 27th October 2018. - 2nd training in Japan was planned to be held around October 2020. It was postponed due to the influence of Covid-19. It is tentatively scheduled in September 2021 and will be discussed/decided by both MOA and JICA sides later seeing the Covid-19 affected situation. - 10 MOA counterparts participated in SHEP/ISMAP Workshop held in Egypt (1-6 Mar. 2020) to deepen

Inputs	Plan (PDM Ver. 5)	Actual (Aug. 2016~Feb. 2021)
		understanding on the SHEP Approach. Participants from Egypt, Morocco, Sudan, and Palestine shared their knowledge, experiences, challenges, and ideas of SHEP implemented in their respective countries. They also visited sites of ISMAP Project and had interviews with beneficiary farmers.
(3) Equipment	Vehicles Procurement of vehicles for DOAs of the 3rd cycle and later will be examine and decided later. Other equipment to be agreed upon at a later stage in consideration of needs.	- 2 vehicles (minibus and 4WD pickup truck) were procured in Nov. 2017. These vehicles are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. - 4 digital cameras were respectively provided to Mass Media Dept., DOAs of the 1st Cycle DOAs (Jericho, Nablus, Tubas) in Apr. 2017. Additional 3 cameras were given to the 2nd Cycle DOAs (Jenin, Tulkarem, Qalqilia) in Jul. 2017. - A color printer was provided to GDoERD in Jun. 2017. - A notebook PC was provided to GDoERD in Sep. 2017. - Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. - 3 digital cameras were given to the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallah) in Nov. 2018. - Eight 4WD pickup trucks provided to MOA in March 2020 were delivered to the 3rd and 4th Cycle DOAs on 25 March 2020. - Veterinary ultrasound diagnostic device (for test pregnancy of A.I.) was procured in January 2021. - Procurement of 2 minibuses is underway.

Table 2 Inputs – Palestinian side

Inputs	Plan (PDM Ver. 5)	Actual (Aug. 2016~Feb. 2021)
(1) Assignment of Counterpart officers	1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture	- Project Director: Deputy Minister -- > Assistant Deputy Minister for Technical Affairs - Project Manager: Director General of GDoERD - Members of 3 Taskforces (Extension, Technical, and Monitoring) and filed level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed. - Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned. - Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017. - All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities. - Field level C/Ps for 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, Yatta, South Hebron (Dora)) were appointed in Nov. 2019.
(2) Project Office	Office space and necessary facilities in Ramallah for Experts	Office space has been made available in Ramallah for the Experts. It was transferred to the main building of MOA in Apr. 2018.

1.2. Progress of Activities (Mar. 2020~ Feb. 2021)

(1) Activities for Output 1

Activities (Plan)	Actual (Mar. 2020~ Feb. 2021)
1-1. Establish Task Forces for implementation of the Project.	- Completed for implementing the 1st, 2nd, 3rd and 4th Cycle activities.
1-2. Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept.	<4th Cycle> - Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle on "Farming Improvement Planning & Training Needs Identification" (Step-4) was conducted by lecturers of 2 C/Ps from Jenin (2 Jun. 2020). (common to Activity 3-5). - Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle on "Farm Record Keeping for Profitability Increase" were conducted by lecturers of 2 C/Ps from GDoERD (6, 7, 8, 10, 20 September 2020). (common to Activity 3-5). - Pre-training guidance on "compost making and application technique" (Step-6) for extensionists of North Hebron DOA and South Hebron DOA were conducted by a Palestinian Expert of JICA Project Team as lecturer (20 Oct. and 18 Nov. 2020). (common to Activity 3-5). - Pre-training guidance on "Dibis quality management" (Step-6) for extensionists of Bethlehem was conducted by a Palestinian Expert of JICA Project Team as lecturer (23 Feb. 2021). (common to Activity 3-5).
1-3. Support development of annual extension plans for 2 years by the targeted DoAs with a view to reflecting the EVAP Extension Package in the plans.	- "Petty Cash System" for implementing EVAP Extension Package by MOA/DOA themselves was changed and approved by Minister of Agriculture (Jun. 2019). - Follow-up and supports have been continued for implementation of EVAP EP by 1st, 2nd, and 3rd Cycle DOAs themselves for FY 2019. - Situation of petty cash use was monitored. Its first delivery of FY 2020 was done for 1st, 2nd, 3rd and 4th Cycle DOAs (15 DOAs) by the end of Mar. 2020. However, activities for EVAP EP were not conducted by DOAs themselves in FY 2020 due to pandemic of Covid-19. - Budget for implementing EVAP EP by DOAs for FY2021 was verbally committed and its request was submitted from DGoERD. Annual extension plans for 1st, 2nd, 3rd and 4th Cycle DOAs (15 DOAs) for FY 2021 was prepared with supports from GDoERD and EVAP Team (covering 16 plant production and 10 livestock farmer groups).
1-4. Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3.	- Workshops regarding progress of implementing annual extension plans which were originally planned in the PDM have not yet been convened. - However, EVAP EP activities were implemented by the 1st, 2nd, and 3rd DOAs with MOA's own budget as implementation of the annual extension plans for FY 2018 and 2019 (see description in Activity 3-6 below). These activities were reported by respective DOAs to GDoERD with using the monitoring checklist after each step is completed. - Online monitoring system was introduced to the 4th Cycle DOAs, meanwhile, it is planned to be introduced to the 1st, 2nd and 3rd Cycle DOAs as soon as possible.

(2) Activities for Output 2

Activities (Plan)	Actual (Mar. 2020~ Feb. 2021)
2-1. Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services.	- Completed by June 2017.
2-2. Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1.	- Completed by June 2017.
2-3. Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package.	- Completed by June 2017.
2-4. Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis.	- Extension services based on the EVAP EP (tours, workshops, trainings, technical supports, etc.) have been provided to the target farmers by C/Ps (extensionists) with assistances of Extension Taskforce members including EVAP-2 Team members (see Activity 3-6 for further detail).
2-5. Develop the 'Provisional EVAP Extension Package' based on the results of the activities under Activity 2.4.	EVAP Extension Package - Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities. Modified one to be applied for the 2nd Cycle was approved in the 3rd JCC held on 27th July 2017. It includes following 7 steps: 1) Willingness and Readiness Confirmation 2) Awareness Creation Tour 3) Market Opportunity Finding 4) Farming Improvement Planning with Extension Needs Identification 5) Farm Record Keeping for Profitability Increase 6) Extension Activities for Farming Improvement 7) Profitability Assessment e-Guideline of the EVAP EP - e-Guideline of the EVAP EP has been developed with conditions of i) staff/extensionists of all DOAs including Gaza Strip could easily access to; ii) electric data of training materials and related forms could be downloaded and printed; iii) latest data could be promptly shared once e-Guideline is updated. Development of e-Guideline which could be used for both PC and smart-phone was once finished in July 2020 (some parts still need to be improved). Composition of e-Guideline is as follows:

1st Layer	2nd Layer
EVAP Extension Package	-Contents of EVAP EP
EVAP EP Management	-Planning and Budget Estimation -Budget Request and Disbursement -EVAP EP Management Team
EVAP EP Technical Information	-Gender Mainstreaming -Good Practice Farmers (about 70 cases) -On-site Soil Analysis (OSDEX) -Plant Production Brochures (in Arabic) -Livestock Brochures (in Arabic) -Farm Record Format (in Arabic)
Step1: Willingness and Readiness Confirmation	-1-1: Selection of Target Farmer Groups -1-2: Willingness and Readiness Confirmation Workshop -1-3: Discussion on Gender Awareness and Consideration
Step2: Awareness Creation Tour	-2-1: Participatory Tour Planning Workshop -2-2: Awareness Creation Tour Implementation
Step3: Market Opportunity Finding	-3-1: Participatory Planning Workshop of Market Opportunity Finding -3-2: Market Visit
Step4: Farming Improvement Planning with Extension Needs Identification	
Step5: Farm Record Keeping for Profitability Increase	
Step6: Extension Activities for Farming Improvement	
Step7: Profitability Assessment	

- Data on "Good Practice Farmers" is in MoA server, which would be managed and updated by Mass Media Department of DoERD. Other data of e-Guideline is planned to be transferred to the same MoA server.

Online Monitoring System

- "Online Monitoring Sheet" by using Google Spreadsheet was developed with following items:
  - Name of farmer group, name of extensionist, name of area
  - Row: No. of Step of EVAP Extension Package
  - Colum: planned date, implementation date, no. of participants, name of participating extensionist, venue, topics, issues, comments from GDoERD.
- Workshops on how to use "Online Monitoring Sheet" for extensionists of the 4th Cycle DOAs were conducted by Director of Extension Planning Department of GDoERD as a lecturer (20, 24, 28 Sep. and 1, 7 Oct. 2020).



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(3) Activities for Output 3

Activities (Plan)	Actual (Mar. 2020~ Feb. 2021)
3-1. Select target Districts and new subsectors to provide extension services based on the 'Provisional EVAP Extension Package'.	- Target Districts (DOAs) for the 1st, 2nd, 3rd and 4th Cycle were selected. >1st Cycle: Jericho, Nablus, and Tubas >2nd Cycle: Jenin, Tulkarm, Qalqilya, and Khan Yunis in GS >3rd Cycle: Salfit, Jerusalem, and Ramallah/Al Bireh >4th Cycle: Bethlehem, Hebron, North Hebron, South Hebron and Yatta.
3-2. Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups.	- Basic survey to grasp current situations in terms of agriculture, farmers' group, and marketing for target Districts of 1st and 2nd Cycles was already completed in 2016. - 3rd Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1. - 4th Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1.
3-3. Review the results of the survey conducted under the Activity 3.2 and categorize the farmer groups in the target areas based on their characteristics.	<2nd, 3rd and 4th Cycles> - Basic information on Districts (e.g. no. of agricultural holdings, cultivated areas, definition of size of farmers, etc.) was considered when candidate target groups were categorized and selected.
3-4. Select the farmer groups to provide extension services based on the 'Provisional EVAP Extension Package', taking into account the results of the Activity 3.3.	**<2nd Cycle>** - Target farmer groups were selected in Sep. and Oct. 2017 through agreed criteria and procedures. **<3rd Cycle>** - Target farmer groups were selected in Sep. and Oct. 2018 through agreed criteria and procedures. **<4th Cycle>** - Target farmer groups were selected in Sep. and Oct. 2019 through agreed criteria and procedures.
3-5. Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4.	**<4th Cycle>** - Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle on "Farming Improvement Planning & Training Needs Identification" (Step-4) was conducted by lecturers of 2 C/Ps from Jenin (2 Jun. 2020). (common to Activity 1-2). - Pre-training guidance with C/Ps of all 5 DOAs for the 4th Cycle on "Farm Record Keeping for Profitability Increase" were conducted by lecturers of 2 C/Ps from GDoERD (6, 7, 8, 10, 20 September 2020). (common to Activity 1-2). - Pre-training guidance on "compost making and application technique" (Step-6) for extensionists of North Hebron DOA and South Hebron DOA were conducted by a Palestinian Expert of JICA Project Team as lecturer (20 Oct. and 18 Nov. 2020).

(common to Activity 1-2).

- Pre-training guidance on "Dibis quality management" (Step-6) for extensionists of Bethlehem was conducted by a Palestinian Expert of JICA Project Team as lecturer (23 Feb. 2021). (common to Activity 1-2).

3-6. Provide extension services, including demo farms, based on the 'Provisional EVAP Extension Package' to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5.

<4th Cycle>

< Step4: Farming Improvement Planning and Training Needs Identification>

- Workshops for the target groups were conducted by corresponding DOAs with the procedure to i) review activities at Step 3 & 4, ii) prepare individual farming improvement plans, iii) select target crops/products for group activities, iv) prepare technical training modules for group.

Group (Date of workshop)	Target crops/products	Training modules
Al Khader Grape Farmer Extension Group (Bethlehem) (2020/06/16)	-Grape existing varieties.	-Study tour to good practiced farmers. -Pest and disease control of grapes. -Improve grape varieties. -Measures for downy mildew. -Mixed use of pesticides.
Janata Livestock Farmer Extension Group (Bethlehem) (2020/06/08)	-Sheep raising.	-Breed improvement. -Improve feedstuff. -Farm management and lamb raising technique. -Animal health and hygiene management. -Study tour to a feedstuff company and a model farmer.
Sa'eer Farmer Extension Group (Hebron) (2020/06/10)	-Tomato. -Gourd. -Tomato & cucumber with grafted seedlings.	-Optimal use of irrigation water. -Vegetable fertilization plan. -Study tour to good practiced farmers. -Preventive measures for disease and pest damages. -Cultivation with grafted seedlings.
Agriculture Knowledge Leading Group in Halhoul (North Hebron) (2020/08/31)	-Grape existing varieties.	-Improve grape varieties. -Pest and disease control of grapes. -Weed control and pruning. -Compost making. -Group procurement and shipping. -Study tour to good practiced farmers.

Al Hejri Farmer Extension Group (South Hebron) (2020/09/13)	-Tomato. -Cucumber. -Tomato & cucumber with grafted seedlings.	-Preventive measures for disease and pest damages. -Optimal use of chemical pesticides, fertilizers, and irrigation water. -Additional study tour. -Hanging cultivation of cucumber and squash. -Introduction of new varieties of vegetables.
Yatta Agriculture Innovative Farmer Extension Group (Yatta) (2020/06/04)	-Sheep (existing breed). -Jameed. -Sheep (new breed).	-Breed improvement. -Improve feedstuff. -Farm management. -Animal health and hygiene management. -Study tour & business matching.

< Step5: Farm Record Keeping>

- Workshops for the target groups were conducted by corresponding DOAs to understand importance of farm record keeping and practice actual record keeping (10, 15, 16, 17, 21, 22 September 2020).

<Step 6: Extension Activities for Farming Improvement>

- Technical trainings, supports and follow-up were provided as follows:

Group	Subject
Al Khader Grape Farmer Extension Group (Bethlehem)	- Dibis (grape syrup) processing quality management (lecture) (19 Oct. 2020). - Practical technical training of Dibis processing (4 Nov. 2020). - Pest and disease control of grapes (20 Jan. 2021). - Dibis (grape syrup) the effect of thermal treatment on Dibis quality "processing quality management" (24 Feb. 2021).
Janata Livestock Farmer Extension Group (Bethlehem)	- Study tour to animal feed company and good practiced sheep raising farmer (14 Oct. 2020). - Trial application of AI service (Oct. 2020). - Feed management technique (18 Nov. 2020). - Preventive measures for health and disease of sheep (2 Dec. 2020). - Improving safety and quality of milk and dairy products (for female farmers, 27 Jan. 2021). - Sheep farm management (3 Feb. 2021).
Sa'eer Farmer Extension Group (Hebron)	- Preventive measures for disease and pest damages of vegetable (7 Dec. 2020). - Fertilization of vegetables and rainfed crops (8 Feb. 2021). - Grafting techniques of vegetable (21 Feb. 2021).
Agriculture Knowledge Leading Group in Halhoul (North Hebron)	- Discussion on market extension and group selling for grapes (7 Sep. 2020). - Study tour to dawalina (grape product) factory and good practiced grape farmer (27 Sep. 2020). - Dibis (grape syrup) processing quality management (lecture) (12 Oct. 2020). - Practical technical training of Dibis processing (2 Nov.

		2020). - Compost making and application technique (16 Nov. 2020). - Dibis (grape syrup) processing quality management (22 Feb. 2021).
	Al Hejri Farmer Extension Group (South Hebron)	- Compost making and application technique (24 Nov. 2020). - Preventive measures for disease and pest damages of vegetable (19 Jan. 2021). - Grafting techniques of vegetable (25 Feb. 2021).
	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	- Trial application of AI service (Oct. 2020). - Feed management technique (11 Nov. 2020). - Preventive measures for health and disease of sheep (1st Time) (30 Nov. 2020). - Preventive measures for health and disease of sheep (2ndTime) (9 Dec. 2020). - Improving safety and quality of milk and dairy products (for female farmers, 25 Jan. 2021). - Sheep farm management (31 Jan. 2021).
	<Implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves> - EVAP EP activities have been implemented by 1st, 2nd and 3rd Cycle DOAs themselves for FY 2018 and FY 2019. Progress in their activities by March 2020 are shown below. However, activities for EVAP EP were not conducted by DOAs themselves in FY 2020 due to pandemic of Covid-19.	
3-7. Monitor and evaluate the outcome of the extension services provided under the Activity 3.6.	- At the workshops for Step 7 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019) and the 2nd Cycle (Jan. 2020), EVAP extension activities and their application for actual farming were evaluated by participating farmers. - Step 7 for the 3rd Cycle target farmer groups is planned to be conducted in Mar. and Apr. 2021.	

<Implementation of EVAP EP by 1st, 2nd and 3rd Cycle DOAs themselves>

- EVAP EP activities have been implemented by 1st, 2nd and 3rd Cycle DOAs themselves by March 2020 as follows:

DOA	Farmer Group	Date of implementing EVAP EP activities (Month/Date)					
		Step 1	Step 2 1) 2)	Step 3 1) 2)	Step 4	Step 5	Step 6
2018-2019 (FY2018)							
Jericho	Auja Livestock Extension Group	4/2	4/9 4/26	5/10 6/28			
	Marj Na'jeh Farmers Extension Group	4/5	4/26 5/10	6/28 8/31	9/13	11/29	
Nablus	Beit Hasan Farmers Extension Group	5/3	7/10	Stop activities due to lack of interests.			
	Jama'een Farmers Extension Group	5/10	5/30 7/17	8/6 9/18	Aug.	9/12	12/11 12/24
	Beit Foreek Livestock Farmers Extension Group	8/1	8/28	9/20			
	Tell Women Farmers Extension Group	7/2	7/12 8/14	10/10			

DOA	Farmer Group	Date of implementing EVAP EP activities (Month/Date)					
		Step 1	Step 2 1) 2)	Step 3 1) 2)	Step 4	Step 5	Step 6
Tubas	Kardala Women Farmers Extension Group	7/2	7/9 8/28	9/3 9/18	1/26	Stop activities due to lack of interests.	
	Akaba Men and Women Farmers Extension Group	7/5	8/1 8/15	8/30 10/14	Jul.	Stop activities due to lack of interests.	
Qalqilia	Jensafout Women Extension Group	4/24	6/27 7/25	9/6 9/25	12/13	7/9	8/25 9/25 12/5
	Qalqilia and Al-Naby Ilyas Farmers Extension Group	4/19	6/28 7/19	10/15 10/25	7/4	7/21	8/29 12/5
Tulkarem	Ateel Women Extension Group	5/5	6/27 7/19	10/2	Stop activities.		
	Thenabeh Farmers Extension Group	5/14	6/28 7/31	9/27 10/24	12/27		
Jenin	Al-Jalameh Farmers Extension Group	4/15	9/2 12/11				
	Al-Jalameh Women Extension Group	4/15	9/2 12/11	12/3 12/4	Merged into male group.		
2019-2020 (FY2019)							
Qalqilia	Qalqilia livestock Farmers Extension Group	8/25	9/8 9/11	9/26 10/3	Stop activities due to delay in replenishment of Petty Cash.		
Tulkarem	Kufur Al-Labad Female Farmers Extension Group	7/1	7/21 8/22	Stop activities due to delay in replenishment of Petty Cash.			
	Tulkarem Female Farmers Extension Group	7/21	9/19 10/8	Ditto.			
South Jenin	Qabatiya Grape Farmers Extension Group	9/17	11/8 11/24				
	South Jenin Honey Bees Farmers Extension Group	9/23	12/5 12/9				
Salfit	Qarawret Bani Hassan livestock Farmers Group	9/3	9/8 9/11	11/25 12/3			
Jerusalem	Beit Soreek Farmers Extension Group	9/21	11/28 12/4				1/23
	North-West Livestock Farmers Extension Group	11/6	11/27 12/2				
Ramallah	Beit Liqia Women Extension Group	9/5	10/31 11/7				
	Bani Zaid Livestock Farmers Extension Group	8/22	9/12 9/30				

<Note>
Step-1: Willingness and Readiness Confirmation
Step-2: Awareness Creation Tour (1) Planning workshop, 2) Tour)
Step-3: Market Opportunity Finding (1) Planning workshop, 2) Tour)

(4) Activities for Output 4

Activities (Plan)	Actual (Mar. 2020~ Feb. 2021)
4-1. Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender perspectives.	**<4th Cycle>** - At the workshops on Step-1 (Willingness and Readiness Confirmation) for target farmer groups of the 4th Cycle, problems and needs relating to farming activities were raised by participating farmers (Oct. 2019).
4-2. Collect and assess the existing technical training and extension materials and available equipment/ facilities.	- Completed in 2017.
4-3. Select appropriate technologies, good agriculture practices and equipment/ facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1.	<Good Practiced Farmers> - Interviews with "good practice farmers" were done by concerned staff/extensionists of DOAs with assistance of C/Ps of Mass Media Dep. of GDoERD EVAP-2 as follows: ➢ Application of group procurement by women group for recommended and improved onions species with a good selling price (January 2021, Salfit). ➢ Making and application of compost on home-gardens crops (January 2021, Salfit). ➢ Separation of sheep lambs and application of artificial suckling machines (January 2021, Yatta). ➢ Establishment of a small sheep farm of improved breeds with high productivity (January 2021, Yatta). ➢ Separation of sheep lambs and application of artificial suckling machines (February 2021, Ramallah). - Technical training material on "Improving Safety and Quality of Milk and Dairy Products" was prepared by EVAP-2 Team (by January 2021): (1) components of milk (quality of good milk, how to get good milk); (2) milk quality assessment (recommendation for getting good milk, causes of abnormal appearance and smell in milk); (3) sources of milk contamination; (4) milk treatments utensils; (5) correct milking methods; (6) cooling milk; (7) preserving quality of milk; (8) processing milk products (benefits of processing milk products, definition of pasteurization, processing methods of milk products); (9) processing techniques of milk products (cream, Jameed, white cheese, butter, margarine, yogurt); and (10) important points. - Training material on "Dibis quality management" was prepared based on the demos and lab test results of Dibis samples (December 2020 & January 2021). - Training material on "Fertilization of vegetables (tomato and cucumber) and rainfed crops" was prepared (December 2020 & January 2021). - Training materials on "Sheep farm management" was upgraded (January 2021).

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	- Four leaflets on animal common diseases were prepared based on the livestock farmers' needs (January 2021).
4-4. Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required.	<Trial Application for AI Services> - EVAP-2 Team has supported MOA for establishing the system for providing AI (artificial insemination) services with sustainable manner in consideration of: ➢ Farmers would partially shoulder costs ➢ Set the prices which farmers could pay ➢ Persons of Palestinian side (concerned staff of MOA and private veterinaries) could continue the services by themselves ➢ Target farmers having difficulties of accessing to private veterinaries providing AI services - Staff from GDoERD (4 persons), GD of Animal Health and Veterinary (1 person), NARC (1 person), Bait Qad Station, Bethlehem DOA (6 person), Yatta DOA (5 person), and Palestinian Center for Livestock Improvement (6 person) participated in activity on trial application for AI services for target farmers in Bethlehem and Yatta (11, 14, 26, 28 October 2020).
4-5. Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.	- Training materials for the 1st, 2nd, 3rd, and 4th Cycles which could be farming manuals covering comprehensive steps or some steps depending on target crop were prepared.

1.3. Achievement of Outputs

	Outputs	Status for achievement of indicators as of the end of Feb. 2020
1	The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. Understanding of C/Ps (Extension Taskforce members, the 1st, 2nd, 3rd and 4th Cycle DOAs) on EVAP EP seems to be deepen through their participating in TOTs/pre-training guidance and facilitating workshops/sessions for the target farmers, judging from that they have facilitated these workshops/sessions smoothly. JICA Experts mainly conducted sessions of TOTs/pre-training guidance related to EVAP EP for the 1st and 2nd Cycles with participation of the Taskforce members. On the other hand, the training sessions on "gender awareness and consideration" for extensionists of the 3rd and 4th Cycle DOA (November 2018 and October 2019, respectively), 2 staff of Rural Development Department under GDoERD facilitated in these sessions. At the pre-training guidance sessions for the 3rd Cycle, DOA extensionists of the 1st Cycle explained implementation procedures of the steps with their experiences. Those sessions for the 4th Cycle were facilitated by the DOA extensionists of the 2nd Cycle. In addition, the 1st, 2nd and 3rd Cycles DOA themselves have implemented the 2nd and 3rd round EVAP extension activities based on "e-Guideline of EVAP EP" prepared by EVAP-2 Team. Thus, it could be said that capacities of DOA extensionists of understanding and implementing the Package have been enhanced to enough level through above variety of activities. However, 4th round EVAP extension activities (in FY 2020) for the 1st, 2nd 3rd and 4th Cycles DOAs themselves were not carried out due to influence by pandemic of Covid-19. 1.2. Budgets which could be exclusively used for the 2nd and 3rd -round activities of EVAP EP by the DOAs were secured for 6 DOAs (1st and 2nd Cycles) for FY 2018, 9 DOAs (1st, 2nd and 3rd Cycles) for FY 2019 and 15 DOAs (1st, 2nd, 3rd and 4th Cycles) for FY 2020. The same budget for FY 2021 was verbally committed and its request was submitted from DGoERD. GDoERD has regarded EVAP EP as the important extension tool and facilitated its application to annual extension plans. Utilization of EVAP EP was included and target sub-sectors were selected in annual extension plans for 6 DOAs for FY 2018, 9 DOAs for FY 2019 and 15 DOAs for FY 2020 and FY 2021.
2	The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	- EVAP-2 team made the 1st revised version of EVAP Extension Package, which was approved in the 2nd JCC held on 4th Jan. 2017. - Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC held on 27th July 2017. - This approved EVAP EP has been applied for the 2nd, 3rd and 4th Cycles without further modification. - Since the revised Package was established in full consideration of the results of field activities, it could be said that sufficient level of achievements has been made for this Output 2.
3	Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target	3.1. EVAP EP were reflected into annual extension plans of FY 2018 (1st and 2nd Cycle DOAs), FY 2019 (1st, 2nd and 3rd Cycles), FY2020 and FY 2021 (1st, 2nd, 3rd and 4th DOAs) and target sub-sectors were selected. In line with their annual extension plans and target sub-sectors, target farmer groups (14 groups for FY2018 and 10 groups for FY2019) were selected and EVAP EP activities have been conducted by respective DOAs. EVAP EP activities for FY2020 were not implemented due to

Outputs	Status for achievement of indicators as of the end of Feb. 2020
farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	pandemic of Covid-19. 3.2. Number of farmers participating in respective steps of EVAP EP are as follows:

<1st Cycle (Jericho, Nablus, Tubas): 6 farmer groups (FGs)>

Step	Male	Female	Total
Step 2: Planning workshop	34	26	60
Step 2: Tour	51	51	102
Step 3: Planning workshop	31	50	81
Step 3: Market visit	49	39	88
Step 4: Family Resource & Gender Analysis	41	35	76
Step 5: Action Planning	37	43	80
Farm Record Keeping	24	28	52
Business matching & tour	22	43	65
Technical training, supports, follow-up	148	97	245
Step 7: Profitability Assessment	25	34	59
Total number of participants	462	446	908
Number of beneficiaries (at least one time participation)	165	118	283
Total number of sessions			70
Average number of participants per session			13.0

<2nd Cycle (Jenin, Tulkarem, Qalqilia): 6 FGs >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	62	18	80
Step 2: Planning workshop	66	12	78
Step 2: Tour	96	35	131
Step 3: Planning workshop	71	25	96
Step 3: Market visits	105	30	135
Step 4: Farming Improvement Planning	74	27	101
Step 5: Farm Record Keeping	59	26	85
Step 6: Extension Activities (Training & Technical Supports)	266	133	399
Step 7: Profitability Assessment	40	19	59
Total number of participants	839	325	1,164
Number of beneficiaries (at least one time participation)	306	85	391
Total number of sessions			77
Average number of participants per session			15.1

Note: 2 farmer groups (37 male members) in Khan Yunis DOA in GS were selected as target for the 2nd Cycle. Since only Step 1 activities were implemented, number of these farmers and their sessions are not included in the above table.

<3rd Cycle (Ramallah/Al Bireh, Jerusalem, Salfit): 6 FGs >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	78	22	100
Step 2: Planning workshop	63	28	91

Outputs	Status for achievement of indicators as of the end of Feb. 2020

Step 2: Tour	91	32	123
Step 3: Planning workshop	69	29	98
Step 3: Market visits	87	52	139
Step 4: Farming Improvement Planning	50	22	72
Step 5: Farm Record Keeping	43	21	64
Step 6: Extension Activities (Training & Technical Supports)	320	86	406
Total number of participants	758	271	1,029
Number of beneficiaries (at least one time participation)	267	91	358
Total number of sessions			69
Average number of participants per session			14.9

<4th Cycle (Bethlehem, Hebron, North Hebron, South Hebron, Yatta): 6 FGs>

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	110	35	145
Step 2: Planning workshop	81	37	118
Step 2: Tour	94	46	140
Step 3: Planning workshop	93	28	121
Step 3: Market visits	87	27	114
Step 4: Farming Improvement Planning	71	28	99
Step 5: Farm Record Keeping	61	33	94
Step 6: Extension Activities (Training & Technical Supports)	257	169	421
Total number of participants	831	379	1,210
Number of beneficiaries (at least one time participation)	286	127	413
Total number of sessions			57
Average number of participants per session			21.2

As mentioned above, enough farmers have participated in activities of EVAP EP.

3.3. Several cases that farmers have applied knowledge, techniques and know-hows obtained from activities of the Package (good practice farmers visited by "awareness creation tours", market visits, technical trainings, etc.) have so far been heard from target farmers and DOA extensionists.
According to the results of Step 7 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019), the ratios of farmers who have applied information and techniques from EVAP EP activities for their farming activities exceed 70% in all Steps. In addition, all respondents have applied information/techniques obtained from any of the Steps. Many examples of applications were raised by participating farmers at the workshops of this Step 7.
According to the results of Step 7 for target farmer groups of the 2nd Cycle (Jan. 2020), around 85% of participating farmers answered that they have applied techniques and information obtained from EVAP activities (study

Outputs	Status for achievement of indicators as of the end of Feb. 2020
	tours, planning sessions, lectures for technical training, technical training manuals/materials, etc.) for their actual farming. Many examples of applications were raised by participating farmers at the workshops of this Step 7. Step 7 for 3rd Cycle farmer groups is planned to be conducted in Mar. and Apr. 2021.
4 The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. At the Step 4 (Farming Improvement Planning), target crops were selected and necessary technical trainings for Step 6 were discussed based on target farmers' needs. In consideration of these needs, various technical training materials which could be cultivation and farming manuals covering comprehensive steps or some steps depending on target crops/products have been prepared. In the fields of livestock, soil management, pest & plant disease management, technical manuals on specific issues (e.g. semen freezing technique, A.I., on-farm soil diagnosis, pest & plant diseases management, etc.) which might have high demands from farmers were also prepared. 4.2. Technical manuals were prepared with fully incorporating opinions of concerned DOA extensionists and staff of technical departments through Extension/Technical Taskforce Meetings and pre-training guidance, etc. Some manuals were prepared by DOA extensionists and/or technical staff of MOA themselves. On the other hand, according to the results of evaluation at Step 7 by target farmers of the 1st Cycle, nearly all farmers showed their satisfactions on Step 5 (Farm Record Keeping) and Step 6 (Extension Services and Technical Trainings) of EVAP activities which used technical manuals (58 out of 59 respondents for Step 5, 54 out of 55 respondents for Step 6). Thus, it could be thought that farmers positively evaluate technical manuals prepared under EVAP activities. At Step 7 for the 2nd Cycle, all participating farmers showed their satisfactions (25 for very satisfied and 27 for satisfied) on technical training manuals/materials provided by EVAP. Step 7 for 3rd Cycle farmer groups is planned to be conducted in Mar. and Apr. 2021.

1.4. Achievement of the Project Purpose

Increase in net income from agriculture of the target farmers as the Project Purpose was checked at the workshops of Step 7 for target farmers of the 1st Cycle (Feb. & Mar. 2019) and 2nd Cycle (Jan. 2020). Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP activities (baseline status).

Net agricultural profits with EVAP have been increased for 2 years by 46.1% and 60.9% for 1st Cycle and 2nd Cycle in comparison with those without EVAP. Thus, annual increases in agricultural net profits are 20.9% and 26.8% for 1st Cycle and 2nd Cycle respectively, which exceed target figure of 8.0% increase of the Project Purpose.

While 17 out of 59 farmers (10.0%) have not obtained increase (15 for no change and 2 for decrease) in their net profits for the 1st Cycle, only 5 out of 56 famers (8.9%) have not obtained increase (5 for no change and no one for decrease) in their net profits for the 2nd Cycle.

Change in Agricultural Net Profits After/With EVAP

	Total Net Profit (NIS/Year) (Present)	Total Net Profit (NIS/Year) (Baseline)	No. of Sample Households (HH)	Average Net Profit (NIS/Year/HH) (Present)	Average Net Profit (NIS/Year/HH) (Baseline)	% (Present/ Baseline)	% (difference)
1st Cycle (6 FGs)	1,115,419	763,233	59	18,905	12,936	146.1%	+46.1%
2nd Cycle (5 FGs)	1,830,175	1,137,440	56	32,682	20,311	160.9%	+60.9%

Workshops of Step 7 for target farmers of the 3rd Cycle will be conducted around in March and April 2021.

1.5. Changes to the risks as identified under the PDM and Actions taken for their mitigation

Not applicable.

1.6. Progress in Actions undertaken by JICA

1.7. Progress in Actions undertaken by Ministry of Agriculture, Palestine

＜Progress and countermeasures＞

(1) Arrangement for an office for the Japanese Expert Team and necessary facilities.
New office space at the MOA main building was offered to EVAP-2 Team (including Japanese Experts) in Apr. 2018.

(2) Assignment of the counterparts.
Project Director (Assistant Deputy Minister for Technical Affairs) and Project Manager (Director General, GDoERD) were assigned. Members of 3 Taskforces (Monitoring, Technical, Extension) and field level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed.

Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned (Apr. 2017).

Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017.

All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities.

Field level C/Ps for 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, Yatta, South Hebron (Dora)) were appointed in Nov. 2019.

1.8. Progress of Environmental and Social Considerations

Not applicable

1.9. Progress of Considerations on Gender/ Peace building/ Poverty Reduction

<Gender Consideration for the 4th Cycle>

Gender consideration measures have been taken for implementing EVAP EP activities for the 4th Cycle farmer

groups as follows:

Common: Both male and female DOA extensionists were assigned as C/P. Venues and times for the activities were decided to facilitate both male and female farmers' participation in the EVAP EP activities.

Step 1: Inclusion of women/women-dominant groups were considered for selecting candidate target groups. Out of 6 target farmer groups, 5 groups include female members.

Step 2 & 3: Destinations and schedules of tours were decided in consideration of intentions and convenience of both male and female farmers.

Regarding the Step 6 (Extension Activities for Farming Improvement), technical trainings on "Improving Safety and Quality of Milk and Dairy Products" were conducted with targeting only female farmers of Janata Livestock Farmer Extension Group (Bethlehem) and Yatta Agriculture Innovative Farmer Extension Group (Yatta) by female DOA extensionists (Jan. 2021) due to the reasons that (i) milking and dairy processing tasks are usually performed by women; (ii) there are needs for technical training to prevent some contamination and improve quality of dairy products; (iii) female farmers particularly from Yatta group have difficulties to attend the activities with male farmers.

1.10. Other remarkable/ considerable issues related/ affect to the Project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

Due to influence by outbreak of Covid-19, EVAP-2 activities for target farmer groups were delayed. Considering this delay, MOA and JICA agreed to extend the termination of the Project from October 2021 to February 2022.

EVAP-2 activities for Gaza Strip have been suspended due to its political instability and influence of Covid-19. It was also agreed by MOA and JICA that whether EVAP-2 activities in Gaza Strip would be implemented or not would be decided seeing the situation as of the end of May 2021.

2. Delay of Work Schedule and/ or Problems

Due to influence of Covid-19, EVAP activities for target farmer groups were delayed and 2nd C/P training in Japan which was planned to be done around Oct. 2020 was postponed.

3. Modification of the Project Implementation Plan (see PO and PDM as per attached)

3.1. Plan of Operation (PO)

Project period was extended up to February 2022 from October 2021 (4 months extension). Accordingly, schedules of some activities of PDM and PO were modified as per their ver. 5.

3.2. Other modification on detailed implementation plan

Not applicable.

4. Preparation of the Palestinian side toward after completion of the Project

(1) Policy

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"EVAP Extension Package" which was developed by the EVAP-1 Project and has been practiced by the EVAP-2 Project was incorporated into "Palestinian National Agricultural Extension Strategy (PNAES) 2016-2019" (March 2016).

"National Agriculture Sector Strategy (2017-2022)" was prepared by Ministry of Agriculture. This EVAP-2 Project is in line with this Strategy, particularly its strategic objectives 3 (Increase in agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security), 4 (Improvement of female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains) and 5 (Development of effective and efficient institutional and legal frameworks).

(2) Institutional aspect

EVAP Extension Package (EP) were reflected into annual extension plans of target DOAs (1st/2nd Cycle DOAs for FY 2018, 1st/2nd/3rd Cycle DOAs for FY 2019 and 1st/2nd/3rd/4th Cycle DOAs for FY 2020 and FY 2021).

(3) Technical aspect

Based on knowledge, know-hows and experiences acquired from implementation of the 1st Round EVAP EP activities with direct assistance from EVAP-2 Team as well as the Guideline of the EVAP EP prepared by EVAP-2 Team, the 2nd and 3rd Round EVAP EP activities have been implemented by the extensionists of the 1st/2nd/3rd Cycle DOAs themselves. The e-Guideline of the EVAP EP which the extensionists could refer to was also prepared.

(4) Financial aspect

Budget ceilings which could be exclusively used for the EVAP EP activities by DOAs themselves were secured for FY 2018, 2019, 2020 and 2021.

System for smooth budget request and disbursement for implementing EVAP EP has been improved (e.g. preparation of "manual on budget request and disbursement for EVAP EP", introduction of "petty cash system", etc.).

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Project Monitoring Sheet I ver. 9（Based on Project Design Matrix ver. 5）

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development

Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip

Period of Project: July 2016 - February 2022

Project Site: All Districts of West Bank and Gaza Strip

Version 9

Dated 2021/3/25

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal In all Districts of West Bank & Gaza Strip, the number of farmers who have experienced a rise in their income through the benefits of extension services based on the Improved EVAP Extension Package have increased.	The net income from agriculture have increased among significant number (to be determined) of small and medium sized farmers in all Districts of West Bank & Gaza Strip.	Ex-post evaluation		-	-
Project Purpose In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen based on the Improved EVAP Extension Package.	The net income*1 from agriculture*2 have increased among the targeted small and medium sized farmers by 8.0% at the time of Project completion*3. **1: Current (nominal) prices will be applied.* **2: It will specify agriculture activities related to target crops under EVAP-2.* **3: Data on profitability increase of target crops under EVAP-2 for 2 years will be calculated by the target farmers based on their farm records (not at the time of Project completion).*	Baseline survey, Project evaluation report (End-line Survey)	1. There are no natural disaster incidents in the region.	Achievement with sufficient level. According to the evaluation results of the 1st and 2nd Cycle activities, average annual increases in agricultural net profits of target farmers due to EVAP activities are 20.9% and 26.8%, respectively.	
Outputs Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. All targeted MoA and DoA personnel*1 (i.e. the participants of Activity 1.2) demonstrate good understanding of EVAP Extension Package, including its principles and objectives. **1: Those nominated as Project counterparts.* 1.2. All DoA annual plans reflect the EVAP Extension Package.	Presentation materials used under Activity 1.4 Interviews DoA annual plans	1. There are no drastic climatic changes. 2. The market value of agricultural produce does not decline drastically.	Achievement with sufficient level. Understanding of C/Ps on EVAP EP seems to be deepened as related activities have been conducted. Sufficient level of achievement in terms of reflecting EVAP EP into annual plans of the 1st, 2nd, 3rd and 4th Cycle DOAs.	
Output 2: The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	2.1. The Provisional EVAP Extension Package incorporate measures to ensure that its extension services reach out to small and medium sized farmers. 2.2. The improved EVAP Extension Package is finalized and approved by JCC.	Revisions made through Activities 2.1 through 2.5 and their reasons. JCC minutes		Achieved with sufficient level. The 1st revised EVAP EP was approved in the 2nd JCC. It was revised based on the results of the 1st Cycle activities and approved in the 3rd JCC. This approved EVAP EP has been applied for the 2nd, 3rd and 4th Cycles without further modification.	
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. All DoAs implement their annual plan without direct support of the Project. 3.2. Appropriate levels (to be determined) of participation of small and medium sized farmers is observed under Activity 3.6. 3.3. Significant number/proportion (to be determined) of small and medium sized farmers adopt the suggested techniques/know-hows.	M&E Report of the DoAs one year after implementation of the cycle under Activities 3.1-3.6. Records kept by the extensionists Results of Activity 3.7 (End-line Survey Report)		Certain level of achievement. EVAP EP activities have been conducted for 14 farmer groups by the 1st and 2nd Cycle DOAs themselves with MOA budget of FY 2018. Activities for additional 8 farmer groups have been conducted by the 2nd and 3rd Cycle DOAs with FY2019 budget. However, EVAP activities for FY 2020 by 15 DOAs themselves were not carried out due to outbreak of Covid-19. Sufficient level of achievement. See Summary Table for details of related activities and number of participating farmers. Sufficient level of achievement. According to the results of Step-7 for 1st Cycle and 2nd Cycle, around 70% of farmers participating in the session have applied information/techniques from all steps of the EVAP EP activities for their farming activities for the 1st Cycle, and around 85% of them have applied techniques/information obtained from EVAP activities (study tours, planning sessions, lectures for technical training, technical training manuals/materials, etc.) for their actual farming for the 2nd Cycle.	
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. Farming manuals that cover the comprehensive steps from planting to marketing for each relevant agricultural products, based on the needs of the small and medium sized farmers, have been developed. 4.2. The farming manuals receive positive feedback from the extensionists and farmers.	Farming manuals Questionnaire survey among extensionists and farmers		Sufficient level of achievement. Variety of training materials which could be farming manuals covering comprehensive steps or some steps depending on target crops/products were prepared based on needs of target farmers of the 1st, 2nd, 3rd and 4th Cycles. Sufficient level of achievement. Technical manuals were prepared with incorporating opinions of concerned DOA extensionists and staff of technical departments. Some manuals were prepared with their initiatives. According to the evaluation results of the 1st and 2nd Cycle activities, nearly all farmers showed their satisfactions on technical trainings which used technical manuals prepared by EVAP.	

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Project Monitoring Sheet II ver. 9 (based on Plan of Operation ver.5)

Version 9
March 25, 2021

IEX2

Project Title: The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Inputs	Phase / Year	1st Period / 2nd Period / 3rd Period (2016 – 2017 – 2018 – 2019 – 2020 – 2021 – 22)	Remarks	Monitoring: Issue	Monitoring: Solution
Expert					
Chief Advisor/ Farm Management (1)/ Agricultural Policy/ Fruit production	Plan / Actual		Planned assignment schedules were modified as the Project period was extended. Their actual assignment schedules/periods were modified in consideration of progress of the Project activities.	None.	
Deputy Chief Advisor/ Farm Management (2)/ Field Crop Cultivation (1)	Plan / Actual				
Extension Planning/Training Materials Development	Plan / Actual				
Gender/Farmers Organizations	Plan / Actual				
Vegetable Production (1)	Plan / Actual				
Vegetable Production (2)/ Field Crop Cultivation (2)	Plan / Actual				
Animal Husbandry/ Veterinary/ Animal Disease Diagnosis	Plan / Actual				
Water-Saving/ Water Use Techniques/ Soil Management	Plan / Actual				
Marketing	Plan / Actual				
Monitoring/ Planning and Reporting System Development	Plan / Actual				
Equipment					
Vehicles	Plan / Actual		Minibus and 4WD pickup truck were procured, and are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. Eight 4WD pickup trucks provided to MOA in March were delivered to the 3rd and 4th Cycle DOAs on 25th Mar. 2020. Procurement of 2 minibuses is underway.	Status of using these cars by respective DOAs.	
Facilities/equipment necessary for effective extension	Plan / Actual				
Training in Japan					
Training for Counterpart Personnel	Plan / Actual		10 training in Japan was held in Oct. 2018. 10 MOA counterparts participated in SHEP/SMAP Workshop held in Egypt (1-6 Mar. 2020). 2nd training in Japan planned in Oct. 2020 was postponed tentatively to in Sep. 2021.	Decide whether 2nd training in Japan would be conducted or not seeing the Covid-19 affected situation.	

Activities / Sub-Activities	Year	2016 – 2017 – 2018 – 2019 – 2020 – 2021 – 22	Responsible Organization: Japan	Responsible Organization: Palestine	Achievements	Issue & Countermeasures
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.						
1.1 Establish Task Forces for implementation of the Project.	Plan / Actual		JICA	MOA	Completed as scheduled.	None.
1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and District Agriculture Offices (DoAs).	Plan / Actual		JICA	MOA	Series of Taskforce (Extension, Technical, Monitoring) Meetings, pre-training guidance/meetings with 1st, 2nd, 3rd and 4th Cycle DOAs were held.	None.
1.3 Support development of annual extension plans by the targeted DoAs.	Plan / Actual		JICA	MOA	Support 1st, 2nd, 3rd and 4th Cycle DOAs for preparing annual extension plans for FY2021.	Continuous follow-up implementation of EVAP EP by 1st, 2nd, 3rd and 4th Cycle DOAs.
1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans.	Plan / Actual		JICA	MOA	Not yet implemented as scheduled.	None.
Output 2:The EVAP Extension Package[1] is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank & Gaza Strip.						
2.1 Review the EVAP Extension Package, with a view to mainstreaming gender and improving the effectiveness of extension services.	Plan / Actual		JICA	MOA	Completed as scheduled.	None.
2.2 Propose a Revised Draft EVAP Extension Package.	Plan / Actual		JICA	MOA	Completed as scheduled (The 1st revised EVAP EP was approved in the 2nd JCC).	None.
2.3 Select farmer groups from among Districts in the West Bank for the purpose of revision of the EVAP Extension Package.	Plan / Actual		JICA	MOA	Completed as scheduled (Target farmer groups for the 1st Cycle were selected).	None.
2.4 Provide extension services based on the Revised Draft EVAP Extension Package on a trial basis.	Plan / Actual		JICA	MOA	Completed with a trial basis. See 3-6 for progress in extension service activities for target farmers.	None.
2.5 Develop the 'Provisional EVAP Extension Package'.	Plan / Actual		JICA	MOA	EVAP EP was modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC. e-Guideline of EVAP EP was developed. Online Monitoring System was developed.	Actual use of e-Guideline and Online Monitoring System will be followed up.
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.						
3.1 Select target Districts and new subsectors to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan / Actual		JICA	MOA	Target Districts for the 1st, 2nd, 3rd and 4th Cycles were selected.	None.
3.2 Conduct survey on agricultural practice including gender roles in the target Districts.	Plan / Actual		JICA	MOA	EVAP-2 team conducted the basic survey to grasp current situations for 1st and 2nd Cycles. DOAs selected target sub-sectors for 3rd and 4th Cycles.	None.
3.3 Review the results of Activity 3.2 and categorize the farmer groups in the target areas.	Plan / Actual		JICA	MOA	Basic inforation of Districts/areas was considered for categorizing and selecting target farmer groups.	None.
3.4 Select the farmer groups to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan / Actual		JICA	MOA	Target farmer groups for the 4th Cycle were selected in Sep. - Oct. 2019.	None.
3.5 Develop the details in each extension step.	Plan / Actual		JICA	MOA	Completed for 4th Cycle.	None.
3.6 Provide 'Provisional EVAP Extension Package'-based extension services, including demo farms, to the selected farmer groups.	Plan / Actual		JICA	MOA	Ongoing for 4th Cycle.	None.
3.7 Monitor and evaluate the outcome of the Activity 3.6.	Plan / Actual		JICA	MOA	Evaluations for the 3rd Cycle activities will be conducted as Step-7 in Mar. and Apr. 2021.	Preparation for Step 7.
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.						
4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers.	Plan / Actual		JICA	MOA	Problems/needs were raised by target farmers of the 4th Cycle.	None.
4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities.	Plan / Actual		JICA	MOA	Done as scheduled.	None.
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced.	Plan / Actual		JICA	MOA	Ongoing as scheduled.	None.
4.4 Verify and conduct field demo farms, as required, the applicability of the newly introduced technology based on the verification criteria.	Plan / Actual		JICA	MOA	Done for the 4th Cycle.	None.
4.5 Develop farming manuals that cover the comprehensive steps from planting to marketing.	Plan / Actual		JICA	MOA	Done for the 4th Cycle.	None.
Duration/Phasing	Plan / Actual					

Monitoring Plan	Year	2016 – 2017 – 2018 – 2019 – 2020 – 2021 – 22	Remarks	Issue	Solution
Monitoring					
Joint Coordinating Committee	Plan / Actual		8th JCC planned to be held in Mar. 2020 was postponed. It was held on 14 Dec. 2020.		
Set-up the Detailed Plan of Operation	Plan / Actual				
Submission of Monitoring Sheet	Plan / Actual				
Monitoring Mission from Japan	Plan / Actual				
Joint Monitoring	Plan / Actual				
Post Monitoring	Plan / Actual				
Reports/Documents					
Inception Report	Plan / Actual				
Progress Report	Plan / Actual				
Training Materials	Plan / Actual				
Project Completion Report	Plan / Actual				
Public Relations					
Establishment and Operation of Web Site	Plan / Actual				
Seminars	Plan / Actual				

[1] **EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.**

To: The Chief Representative, JICA Palestine Office

PROJECT MONITORING SHEETS

The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)
Palestine

Version 10

Date of Submission: 13 October 2021

Salaheddin Al-Baba
Project Manager
General Directorate of Agriculture Extension and Rural Development
Ministry of Agriculture, Palestine

Tomoki Nakamura
Chief Advisor
JICA Expert Team

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ABBREVIATIONS

C/P	Counterpart
DOA	Directorate of Agriculture
-	Dunum (land unit, 1 dunum=approx. 900m2)
EP	Extension Package
EVAP	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 1)
EVAP Phase 2	Project for Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)
FAO	Food and Agriculture Organization
GDoERD	General Directorate of Extension and Rural Development
Global GAP	Global Good Agricultural Practice
GS	Gaza Strip
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
MOA	Ministry of Agriculture
M/M	Minutes of Meetings
NARC	National Agriculture Research Center
NIS	New Israeli Shekel
NGO	Non-Governmental Organization
ODA	Official Development Assistance
PA	Palestinian Authority
PDM	Project Design Matrix
PO	Plan of Operation
R/D	Record of Discussion
SHEP	Smallholder Horticulture Empowerment Program
SMS	Subject Matter Specialist

I. Summary

1. Progress

1.1. Progress of Input

Table 1 Inputs – Japanese side

Inputs	Plan (PDM Ver. 5)	Actual (Aug. 2016~Aug. 2021)
(1) Experts	123.5 man-months in total 1. Chief Advisor/Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production 6. Animal husbandry 7. Water-saving/Water use techniques 8. Marketing 9. Training materials development 10. Monitoring/Planning and reporting system development	Period 1 (Aug. 2016~Apr. 2018): 57.32 man-months in total 1. Chief Advisor/ Farm management (1) 2. Deputy Chief Advisor/Farm management (2) 3. Extension Planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2) 7. Animal husbandry 8. Water-saving/Water use techniques 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development Period 2 (Jun. 2018~ Aug. 2019): 36.43 man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Veterinary/ Animal disease diagnosis 8. Water-saving/Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/Planning and reporting system development 12. Training in Japan Period 3 (Sep. 2019~): 22.38man-months in total 1. Chief Advisor/ Farm management (1)/ Agricultural policy/ Horticulture production 2. Deputy Chief Advisor/Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/Farmers organizations 5. Veterinary/ Animal disease diagnosis 6. Training materials development 7. Monitoring/Planning and reporting system development 8. Training in Japan
(2) Training in Japan/ third countries	Training in Japan: 2 times	- 1st training in Japan was held 16th- 27th October 2018. - 2nd training in Japan was planned to be held around October 2020. It was postponed due to the influence of Covid-19. Online virtual study tour to Japan is planned to be conducted in Oct. & Nov. 2021.
(3) Equipment	Vehicles Procurement of vehicles for DOAs of the 3rd cycle	- 2 vehicles (minibus and 4WD pickup truck) were procured in Nov. 2017. These vehicles are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities.

Inputs	Plan (PDM Ver. 5)	Actual (Aug. 2016~Aug. 2021)
	and later will be examine and decided later. Other equipment to be agreed upon at a later stage in consideration of needs.	- 4 digital cameras were respectively provided to Mass Media Dept., DOAs of the 1st Cycle DOAs (Jericho, Nablus, Tubas) in Apr. 2017. Additional 3 cameras were given to the 2nd Cycle DOAs (Jenin, Tulkarem, Qalqilia) in Jul. 2017. - A color printer was provided to GDoERD in Jun. 2017. - A notebook PC was provided to GDoERD in Sep. 2017. - Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. - 3 digital cameras were given to the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallah) in Nov. 2018. - Eight 4WD pickup trucks provided to MOA in March 2020 were delivered to the 3rd and 4th Cycle DOAs on 25 March 2020. - Veterinary ultrasound diagnostic device (for test pregnancy of A.I.) was procured in January 2021. - 2 minibuses procured by JICA were handed over to MoA in May 2021.

Table 2 Inputs – Palestinian side

Inputs	Plan (PDM Ver. 5)	Actual (Aug. 2016~Aug. 2021)
(1) Assignment of Counterpart officers	1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture	- Project Director: Deputy Minister -- > Assistant Deputy Minister for Technical Affairs - Project Manager: Director General of GDoERD - Members of 3 Taskforces (Extension, Technical, and Monitoring) and filed level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed. - Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned. - Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017. - All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities. - Field level C/Ps for 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, Yatta, South Hebron (Dora)) were appointed in Nov. 2019.
(2) Project Office	Office space and necessary facilities in Ramallah for Experts	Office space has been made available in Ramallah for the Experts. It was transferred to the main building of MOA in Apr. 2018.

1.2. Progress of Activities (Mar. 2021~ Aug. 2021)

(1) Activities for Output 1

Activities (Plan)	Actual (Mar. 2021~ Aug. 2021)
1-1. Establish Task Forces for implementation of the Project.	- Completed for implementing the 1st, 2nd, 3rd and 4th Cycle activities.
1-2. Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept.	**Taskforce Meeting** - 8th Monitoring Taskforce Meeting was held on 22 Mar. 2021 to confirm progress of activities and achievement of outputs to be reflected to the Monitoring Sheet. **<3rd Cycle>** - Pre-training guidance with DOA C/Ps were conducted to discuss contents and implementation procedure of Step 7 (Profitability Assessment) of the EVAP EP (23 Mar. 2021 for Ramallah/ Jerusalem, 24 Mar.2021 for Salfit) (common to Activity 3-5). - ToT on "Dibis quality management" for extensionists of Jerusalem DOA was conducted by a Palestinian Expert of JICA Project Team as lecturer (26 Apr. 2021). **<4th Cycle>** - Pre-training guidance on "Dibis quality management" (Step-6) for extensionists of Bethlehem was conducted by a Palestinian Expert of JICA Project Team as lecturer (23 Feb. 2021). (common to Activity 3-5). - Online pre-training guidance on "use of grafted seedlings of vegetables" (Step-6) for extensionists of Hebron DOA, North Hebron DOA and South Hebron DOA was conducted by Director of Vegetable Department of GDoERD as lecturer (15 Feb. 2021). (common to Activity 3-5). - Pre-training guidance on "Dibis quality management" (Step-6) for extensionists of Hebron DOA was conducted by Director of GDoERD together with Palestinian Expert of JICA Project Team (22 Apr. 2021). (common to Activity 3-5). **<For Gaza Strip >** - Agriculture infrastructure in Gaza Strip was hardly damaged by Israeli airstrikes in May 2021. Thus, online workshop was held on 29 May 2021 to share Japanese experience after 3.11 earthquake in 2011 with extensionists of GS. This included "experience of agriculture extensionists in Iwate, Miyagi and Fukushima Prefectures after the earthquake and lessons" and "attitude of extensionists as advisors and hearers for farmers", and more than 30 persons including Deputy Agriculture Minister, Deputy Director General of GDoERD in GS attended the workshop. **<Other JICA related trainings/workshops>** - 10 MOA counterparts participated in SHEP/ISMAP Workshop held in Egypt (1-6 Mar. 2020) to deepen understanding on the SHEP Approach. Participants from Egypt, Morocco, Sudan, and Palestine shared their knowledge, experiences, challenges, and ideas of SHEP implemented in their respective countries. They also visited sites of ISMAP Project and had interviews with beneficiary farmers. - MOA counterparts attended SHEP Approach International Online Workshop in Cairo on 15 Mar. 2021 organized by JICA. Project Manager (Director General of

	GDoERD) made a presentation on EVAP activities, situation of farmers and extension activities under impacts of Covid-19, etc.
1-3. Support development of a one-year annual extension plan for targeted DOAs, taking into account the reflection of the EVAP Extension Package.	- "Petty Cash System" for implementing EVAP Extension Package by MOA/DOA themselves (2nd round activities) was changed and approved by Minister of Agriculture (Jun. 2019). - Follow-up and supports have been continued for implementation of EVAP EP by 1st, 2nd, and 3rd Cycle DOAs themselves for FY 2019. - Budget of FY 2020 petty cash for implementing EVAP EP by MOA/DOA themselves was committed. However, actual its delivery was stopped due to budget issue of MOA. In addition, due to pandemic of Covid-19, their activities were not conducted. - Budget for implementing EVAP EP by DOAs for FY2021 was committed. However, due to budget shortage issue same as in FY2020, actual delivery of petty cash has been suspended. - Annual extension plans with reflecting EVAP EP for 1st, 2nd, 3rd and 4th Cycle DOAs (16 DOAs) for FY 2021 was prepared with supports from GDoERD and EVAP Team.
1-4. Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3.	- Workshops regarding progress of implementing annual extension plans which were originally planned in the PDM have not yet been convened. - Online monitoring system has been introduced to all 16 DOAs in WB to enter information of progress in their EVAP activities to be checked by GDoERD.

(2) Activities for Output 2

Activities (Plan)	Actual (Mar. 2021~ Aug. 2021)
2-1. Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services.	- Completed by June 2017.
2-2. Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1.	- Completed by June 2017.
2-3. Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the	- Completed by June 2017.

<table>
<tr><td>purpose of revision of the EVAP Extension Package.</td><td></td></tr>
<tr><td>2-4. Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis.</td><td>- Extension services based on the EVAP EP (tours, workshops, trainings, technical supports, etc.) have been provided to the target farmers by C/Ps (extensionists) with assistances of Extension Taskforce members including EVAP-2 Team members (see Activity 3-6 for further detail).</td></tr>
<tr><td>2-5. Develop the ‘Provisional EVAP Extension Package’ based on the results of the activities under Activity 2.4.</td><td>EVAP Extension Package
- Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities. Modified one to be applied for the 2nd Cycle was approved in the 3rd JCC held on 27th July 2017. It includes following 7 steps:
1) Willingness and Readiness Confirmation
2) Awareness Creation Tour
3) Market Opportunity Finding
4) Farming Improvement Planning with Extension Needs Identification
5) Farm Record Keeping for Profitability Increase
6) Extension Activities for Farming Improvement
7) Profitability Assessment
e-Guideline of the EVAP EP
- e-Guideline of the EVAP EP has been developed with conditions of i) staff/extensionists of all DOAs including Gaza Strip could easily access to; ii) electric data of training materials and related forms could be downloaded and printed; iii) latest data could be promptly shared once e-Guideline is updated. Development of e-Guideline which could be used for both PC and smart-phone was once finished in July 2020. Addition and/or update of some materials are still underway. Composition of e-Guideline is as follows:
<table>
<tr><th>1st Layer</th><th>2nd Layer</th></tr>
<tr><td>EVAP Extension Package</td><td>-Contents of EVAP EP</td></tr>
<tr><td>EVAP EP Management</td><td>-Planning and Budget Estimation
-Budget Request and Disbursement
-EVAP EP Management Team</td></tr>
<tr><td>EVAP EP Technical Information</td><td>-Gender Mainstreaming
-Good Practice Farmers (about 70 cases)
-On-site Soil Analysis (OSDEX)
-Plant Production Brochures (in Arabic)
-Livestock Brochures (in Arabic)
-Farm Record Format (in Arabic)</td></tr>
<tr><td>Step1: Willingness and Readiness Confirmation</td><td>-1-1: Selection of Target Farmer Groups
-1-2: Willingness and Readiness Confirmation Workshop
-1-3: Discussion on Gender Awareness and Consideration</td></tr>
<tr><td>Step2: Awareness Creation Tour</td><td>-2-1: Participatory Tour Planning Workshop
-2-2: Awareness Creation Tour Implementation</td></tr>
<tr><td>Step3: Market Opportunity Finding</td><td>-3-1: Participatory Planning Workshop of Market Opportunity Finding</td></tr>
</table></td></tr>
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<table>
<tr><td></td><td>
<table>
<tr><td>-3-2: Market Visit</td></tr>
<tr><td>Step4: Farming Improvement Planning with Extension Needs Identification</td></tr>
<tr><td>Step5: Farm Record Keeping for Profitability Increase</td></tr>
<tr><td>Step6: Extension Activities for Farming Improvement</td></tr>
<tr><td>Step7: Profitability Assessment</td></tr>
</table>
- Data on “Good Practice Farmers” is in MoA server, which would be managed and updated by Mass Media Department of DoERD. Other data of e-Guideline is planned to be transferred to the same MoA server.

Online Monitoring System
- “Online Monitoring Sheet” by using Google Spreadsheet was developed with following items:
➢ Name of farmer group, name of extensionist, name of area
➢ Row: No. of Step of EVAP Extension Package
➢ Colum: planned date, implementation date, no. of participants, name of participating extensionist, venue, topics, issues, comments from GDoERD.
- Online workshop on how to use “Online Monitoring Sheet” was conducted for all 16 DOAs in WB with initiatives of Director General of GDoERD and Director of Extension Planning Department (11 Apr. 2021). 72 persons in total attended the workshop.</td></tr>
</table>

(3) Activities for Output 3

<table>
<tr><th>Activities (Plan)</th><th>Actual (Mar. 2021~ Aug. 2021)</th></tr>
<tr><td>3-1. Select target Districts and new subsectors to provide extension services based on the ‘Provisional EVAP Extension Package’.</td><td>- Target Districts (DOAs) for the 1st, 2nd, 3rd and 4th Cycle were selected.
>1st Cycle: Jericho, Nablus, and Tubas
>2nd Cycle: Jenin, Tulkarm, Qalqilya, and Khan Yunis in GS
>3rd Cycle: Salfit, Jerusalem, and Ramallah/Al Bireh
>4th Cycle: Bethlehem, Hebron, North Hebron, South Hebron and Yatta.</td></tr>
<tr><td>3-2. Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups.</td><td>- Basic survey to grasp current situations in terms of agriculture, farmers’ group, and marketing for target Districts of 1st and 2nd Cycles was already completed in 2016.
- 3rd Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1.
- 4th Cycle: DOAs selected target sub-sectors for EVAP activities in consideration of priorities in their annual extension plans and number of beneficiaries. Major crops, cultivated areas, and gender-wise involvement in agricultural activities of target farmers were confirmed at workshops for the Step-1.</td></tr>
<tr><td>3-3. Review the results of the survey conducted under the Activity 3.2 and categorize the</td><td><2nd, 3rd and 4th Cycles>
- Basic information on Districts (e.g. no. of agricultural holdings, cultivated areas, definition of size of farmers, etc.) was considered when candidate target groups were categorized and selected.</td></tr>
</table>

farmer groups in the target areas based on their characteristics.	
3-4. Select the farmer groups to provide extension services based on the 'Provisional EVAP Extension Package', taking into account the results of the Activity 3.3.	**<2nd Cycle>** - Target farmer groups were selected in Sep. and Oct. 2017 through agreed criteria and procedures. **<3rd Cycle>** - Target farmer groups were selected in Sep. and Oct. 2018 through agreed criteria and procedures. **<4th Cycle>** - Target farmer groups were selected in Sep. and Oct. 2019 through agreed criteria and procedures.
3-5. Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4.	**<4th Cycle>** - Pre-training guidance on "Dibis quality management" (Step-6) for extensionists of Bethlehem was conducted by a Palestinian Expert of JICA Project Team as lecturer (23 Feb. 2021). (common to Activity 1-2). - Online pre-training guidance on "use of grafted seedlings of vegetables" (Step-6) for extensionists of Hebron DOA, North Hebron DOA and South Hebron DOA was conducted by Director of Vegetable Department of GDoERD as lecturer (15 Feb. 2021). (common to Activity 1-2). - Pre-training guidance on "Dibis quality management" (Step-6) for extensionists of Hebron DOA was conducted by Director of GDoERD together with Palestinian Expert of JICA Project Team (22 Apr. 2021). (common to Activity 1-2).
3-6. Provide extension services, including demo farms, based on the 'Provisional EVAP Extension Package' to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5.	**<3rd Cycle>** <Step 7: Profitability Assessment> - Workshops for target farmer groups were conducted with facilitation of DOA extensionists to assess farm management situation of farmers as well as to evaluate EVAP extension activities and their application for actual farming: 29 Mar. 2021 for Salfit Olive Farmers Extension Group, 31 Mar. 2021 for Dier Ballout Women Extension Group (Salfit), 5 Apr. for Al Mughayyir Livestock Farmers Extension Group (Ramallah), 6 Apr. for Al Musbah Olive Farmers Extension Group (Ramallah), 6 Apr. for Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem), and 14 Apr. for Beit Doqqo Grape Farmers Extension Group (Jerusalem). **<4th Cycle>** <Step 6: Extension Activities for Farming Improvement> - Technical trainings, supports and follow-up were provided as follows:

Group	Subject
Al Khader Grape Farmer Extension Group (Bethlehem)	- Dibis (grape syrup) processing quality management (lecture) (19 Oct. 2020). - Practical technical training of Dibis processing (4 Nov. 2020). - Pest and disease control of grapes (20 Jan. 2021). - Dibis (grape syrup) the effect of thermal treatment on Dibis quality "processing quality management" (24 Feb. 2021). - Preventive measures for pest damage of grapes (life cycle of pests, damage of pests, appropriate timing and methods of prevention, etc.) (26 May 2021). - Quality and yield improvement of grapes (planting spacing, pruning method for growth promotion, supplemental irrigation, prevention for insect and disease damages, etc.) (7 Jun. & 15 Jun. 2021). - Study tour to advanced grape farmers in Hebron District (23 Jun. 2021). - Field assessment on drip irrigation tube networks of some target farmers (28 Jun. 2021).
Janata Livestock Farmer Extension Group (Bethlehem)	- Study tour to animal feed company and good practiced sheep raising farmer (14 Oct. 2020). - Trial application of AI service (Oct. 2020). - Feed management technique (18 Nov. 2020). - Preventive measures for health and disease of sheep (2 Dec. 2020). - Improving safety and quality of milk and dairy products (for female farmers, 27 Jan. 2021). - Sheep farm management (3 Feb. 2021). - AI treatment (29 Jul. 2021)
Sa'eer Farmer Extension Group (Hebron)	- Preventive measures for disease and pest damages of vegetable (7 Dec. 2020). - Fertilization of vegetables and rainfed crops (8 Feb. 2021). - Grafting techniques of vegetable (21 Feb. 2021). - Study tour (mix pesticides, etc.) (8 Sep. 2021)
Agriculture Knowledge Leading Group in Halhoul (North Hebron)	- Discussion on market extension and group selling for grapes (7 Sep. 2020). - Study tour to dawalina (grape product) factory and good practiced grape farmer (27 Sep. 2020). - Dibis (grape syrup) processing quality management (lecture) (12 Oct. 2020). - Practical technical training of Dibis processing (2 Nov. 2020). - Compost making and application technique (16 Nov. 2020). - Dibis (grape syrup) processing quality management (22 Feb. 2021). - Pest and disease control of grapes (leaf removal, pruning, use of beneficial enemy insects, weed control, sterilization of pruning tools, prevention of Phylloxera, treatment of pruned brunches and weeds, removal of old bark, humidity control, appropriate timing of compost use, appropriate selection of pesticide, etc.) (28 Apr. 2021). - Quality and yield improvement of grapes (planting spacing, pruning method for growth promotion, supplemental irrigation, prevention for insect and disease damages, etc.) (4 Jun. 2021). - Field assessment on drip irrigation tube networks of some target farmers (30 Jun. 2021). - Group procurement of agricultural materials (28 Jul. 2021). - Business matching with carton box manufacturers (17 &22 Aug. 2021).
Al Hejri Farmer Extension Group (South Hebron)	- Compost making and application technique (24 Nov. 2020). - Preventive measures for disease and pest damages of vegetable (19 Jan. 2021).

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		- Grafting techniques of vegetable (25 Feb. 2021). - Field assessment on drip irrigation tube networks of some target farmers (7 Jul. 2021). - Appropriate use of liquid fertilizer with drip irrigation (15 Jul. 2021).
	Yatta Agriculture Innovative Farmer Extension Group (Yatta)	- Trial application of AI service (Oct. 2020). - Feed management technique (11 Nov. 2020). - Preventive measures for health and disease of sheep (1st Time) (30 Nov. 2020). - Preventive measures for health and disease of sheep (2ndTime) (9 Dec. 2020). - Improving safety and quality of milk and dairy products (for female farmers, 25 Jan. 2021). - Sheep farm management (31 Jan. 2021). - AI treatment (24 Jun. & 14 Jul. 2021)

<Other extension activities for non-target farmers by 4th Cycle DOAs>

- In response to requests from farmers in Al Majd Village who knew EVAP activities, South Hebron DOA implemented technical training on compost making (6 Jul. 2021).
- In response to requests from farmers in Al Bwareh, extensionists of Hebron DOA visited fields of those farmers to assess their drip irrigation tube network and propose appropriate improvement measures (6 Jul. 2021).
- In response to requests from livestock farmers in Al Ma'sara, extensionists of Bethlehem DOA provided AI treatment to their sheep (11 Aug. 2021).

<Implementation of EVAP EP by MOA/DOA themselves>

- EVAP EP activities have been implemented by MOA/DOA themselves (2nd round activities) since FY 2018. Their activities were stopped due to budget shortage issue of MOA and pandemic of Covid-19 in FY 2020. They were suspended in FY 2021 due to same budget issue but resumed in August 2021. Progress in their activities by August 2021 are shown below.

3-7. Monitor and evaluate the outcome of the extension services provided under the Activity 3.6.	- At the workshops for Step 7 (Profitability Assessment) for target farmer groups of the 1st Cycle (Feb. & Mar. 2019), the 2nd Cycle (Jan. 2020) and the 3rd Cycle (Mar. & Apr. 2021), EVAP extension activities and their application for actual farming were evaluated by participating farmers.

<Implementation of EVAP EP by DOAs themselves>

- EVAP EP activities have been implemented by DOAs themselves by 26 September 2021 as follows:

Cycle	DOA	Farmer Group	Steps Implemented	Remarks
1st Cycle	Jericho	Auja Livestock Extension Group	Steps: 1+2+3+4+5	
		Marj Na'jeh Farmers Extension Group	Steps: 1+2+3+4+5	
	Nablus	Beit Hasan Farmers Extension Group	Steps: 1+2	Stopped activities.
		Jama'een Olive Farmers Extension Group	Steps: 1+2+3+4+5+6 (1, 2)	
		Beit Foreek Livestock Farmers Extension	Steps: 1+2	

		Group		
		Tell Women Farmers Extension Group	Steps: 1+2+3 (1)	
	Tubas	Kardala Women Farmers Extension Group	Steps: 1+2+3+4+5	
		Akaba Livestock Farmers Extension Group	Steps: 1+2+3+4+5	
		Al-Fara'a Women Extension Group	Steps: 1	
2nd Cycle	Jenin	Al-Jalameh Farmers Extension Group	Steps: 1+2	
		Al-Jalameh Women Extension Group	Steps: 1+2+3	
	South Jenin	Qabatiya Grape Farmers Extension Group	Steps: 1+2	
		South Jenin Honey Bees Farmers Extension Group	Steps: 1+2+3 (1)	
	Tulkarem	Ateel Women Extension Group	Steps: 1+2+3 (1)	Stopped activities.
		Thenabeh Farmers Extension Group	Steps: 1+2+3+4	Stopped activities.
		Kufur Al-Labad Women Group	Steps: 1+2	
		Tulkarem Women Group	Steps: 1+2	
	Qalqilia	Jensafout Women Group	Steps: 1+2+3+4+5+6+7	Completed.
		Qalqilia &Al-Naby Illyas Group	Steps: 1+2+3+4+5+6 (1, 2)	
		Qalqilia Livestock Group	Steps: 1+2+3	
3rd Cycle	Salfit	Qarawt Bani Hassan Livestock Group	Steps: 1+2+3	
	Ramallah	Biet Liqia Women Group	Steps: 1+2	
		Bani Ziad Livestock Group	Steps: 1+2	
	Jerusalem	North-West Jerusalem Livestock Farmers Group	Steps: 1+2	
		Beit Soreek Stone Fruits Farmers Group	Steps: 1+2+6 (1)	
4th Cycle	Bethlehem	Wad Rahal Grape farmers extension Group	Target group was confirmed.	
		Al-Ma'sareh livestock farmers extension group	Target group was confirmed.	
	North Hebron	Hata Livestock Farmers Extension Group	Target group was confirmed.	
		Soreef Vegetables Farmers Extension Group	Target group was confirmed.	
	Hebron	Khalet el-Dar & Qalqas vegetables farmers group	Target group was confirmed.	

	South Hebron	Dier Shams livestock farmers extension group	Steps: 1	
		Al-Ramadin Vegeatbles Farmers Extension Group	Target group was confirmed.	
	Yatta	Wad Abu Al-Foul vegetables farmers extension group	Steps: 1	

<Note>
Step-1: Willingness and Readiness Confirmation
Step-2: Awareness Creation Tour (1) Planning workshop, 2) Tour)
Step-3: Market Opportunity Finding (1) Planning workshop, 2) Tour)
Step-4: Farming Improvement Planning with Extension Needs Identification
Step-5: Farm Record Keeping for Profitability Increase
Step-6: Extension Activities for Farming Improvement
Step-7: Profitability Assessment

(4) Activities for Output 4

Activities (Plan)	Actual (Mar. 2021~ Aug. 2021)
4-1. Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender perspectives.	**<4th Cycle>** - At the workshops on Step-1 (Willingness and Readiness Confirmation) for target farmer groups of the 4th Cycle, problems and needs relating to farming activities were raised by participating farmers (Oct. 2019).
4-2. Collect and assess the existing technical training and extension materials and available equipment/ facilities.	- Completed in 2017.
4-3. Select appropriate technologies, good agriculture practices and equipment/ facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1.	<Good Practiced Farmers> - Collect information on the case of a farmer of Al Khader Grape Farmer Extension Group who introduced mulching for grape field for efficient use of irrigation water by preventing evaporation, conserving soil moisture, weed suppression, preventing soil erosion, stabilizing soil temperature, etc. (28 Jun. 2021) <Information transmission through Facebook for spreading outputs/effects> - Extensionists of Bethlehem, North Hebron and South Hebron DOAs interviewed with some beneficial farmers to hear effects by EVAP-2 (Jul. 2021). Voices of interviewed farmers and DOAs as follows were transmitted through Facebook of MOA for spreading effects by EVAP-2: ➢ Grape farmer in Al Khader Group: applied calcium-based foliar spray. ➢ Grape farmer in Al Khader Group: obtained new information and useful tips for enhancing quality and yield of grapes. ➢ Vegetable farmer in Al Hejiri Group: understood appropriate application of chemical fertilizer.

	➢ Grape farmer in Halhoul Group: applied compost making with utilizing crop residue and livestock manure. ➢ Director of Extension Service Department (South Hebron DOA): commended that knowledge and skills of extensionists were improved to identify problems faced by farmers and to solve those problems by participatory extension approach. ➢ Director of Vegetable Department (South Hebron DOA): commended that farmers could improve their agricultural profits through improving their farm management (e.g. efficient use of irrigation water, pesticides, fertilizer, etc.) with utilizing advices and services provided by extension activities.
4-4. Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required.	<Trial Application for AI Services> - EVAP-2 Team has supported MOA for establishing the system for providing AI (artificial insemination) services with sustainable manner in consideration of: ➢ Farmers would partially shoulder costs ➢ Set the prices which farmers could pay ➢ Persons of Palestinian side (concerned staff of MOA and private veterinaries) could continue the services by themselves ➢ Target farmers having difficulties of accessing to private veterinaries providing AI services - Staff from GDoERD (4 persons), GD of Animal Health and Veterinary (1 person), NARC (1 person), Bait Qad Station, Bethlehem DOA (6 person), Yatta DOA (5 person), and Palestinian Center for Livestock Improvement (6 person) participated in activity on trial application for AI services for target farmers in Bethlehem and Yatta (11, 14, 26, 28 October 2020). - Staff from Yatta DOA and GDoERD visited farmers in Yatta who received trial application of AI services in October 2020 to check growth situation of their lambs born with AI (9 Jun. 2021). It was confirmed that growth situation of lambs was better than conventional ones and these farmers had intention to receive AI services even paying costs for disposables by themselves. - ToT on sheep AI technique was conducted for extensionists of Yatta DOA and Bethlehem DOA by staff of Palestinian Center for Livestock Improvement (PCLI), NARC as lecturers (22 &29 Jun. 2021). - Extensionists of Yatta DOA and Bethlehem DOA provided AI treatment to some of their target farmers (24 Jun., 14 & 29 Jul. 2021). <Demonstration cultivation with grafted seedlings to prevent soil disease and pests> - Grafted seedlings of cucumber and tomato were distributed to some farmers of Al Hijri Farmers Extension Group and Sa'eer Farmer Extension Group who agreed to cooperate with demonstration cultivation (12 Apr. and 31 May 2021). These farmers would check occurrence of soil disease and pest of using grafted seedlings by comparing with ordinary ones with supports from extensionists of South Hebron DOA and North DOA. - Extensionists of South Hebron DOA visited to farm field of the cooperator farmer to observe the cultivation situation with using grafted seedlings (13 Jun. & 13 Jul. 2021). It was observed that plants with grafted seedlings had not been infected with soil disease and conditions of their stems, leaves and fruits were better than those of ordinary seedlings.

	<Assessment technique on network of drip irrigation tube> - ToT on assessment technique on network of drip irrigation tube was conducted for extensionists of the 4th Cycle DOAs with C/Ps from DG of Agricultural Water & Irrigation and Vegetable Department of GDoERD as lecturers (30 May & 1 Jun. 2021). - Extensionists of Hebron DOA visited field of a farmer to conduct field assessment on his drip irrigation tube network (9 Jun. 2021). - Extensionists of South Hebron DOA visited fields of farmers to conduct field assessment on their drip irrigation tube networks (14, 20 & 23 Jun. 2021).
4-5. Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.	- Training materials for the 1st, 2nd, 3rd, and 4th Cycles which could be farming manuals covering comprehensive steps or some steps depending on target crop were prepared.

1.3. Achievement of Outputs

Outputs		Status for achievement of indicators as of the end of Aug. 2021
1	The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. Understanding of C/Ps (Extension Taskforce members, the 1st, 2nd, 3rd and 4th Cycle DOAs) on EVAP EP seems to be deepen through their participating in TOTs/pre-training guidance and facilitating workshops/sessions for the target farmers, judging from that they have facilitated these workshops/sessions smoothly. JICA Experts mainly conducted sessions of TOTs/pre-training guidance related to EVAP EP for the 1st and 2nd Cycles with participation of the Taskforce members. On the other hand, the training sessions on "gender awareness and consideration" for extensionists of the 3rd and 4th Cycle DOA (November 2018 and October 2019, respectively), 2 staff of Rural Development Department under GDoERD facilitated in these sessions. At the pre-training guidance sessions for the 3rd Cycle, DOA extensionists of the 1st Cycle explained implementation procedures of the steps with their experiences. Those sessions for the 4th Cycle were facilitated by the DOA extensionists of the 2nd Cycle. In addition, MOA/DOA have implemented EVAP EP activities by themselves based on "e-Guideline of EVAP EP" prepared by EVAP-2 Team. Thus, it could be said that capacities of DOA extensionists of understanding and implementing the EVAP EP have been enhanced to enough level through above variety of activities. 1.2. GDoERD has regarded EVAP EP as the important extension tool and facilitated its application to annual extension plans. Utilization of EVAP EP was included and target sub-sectors were selected in annual extension plans of 6 DOAs for FY 2018, 9 DOAs for FY 2019 and 15 DOAs for FY 2020 and 16 DOAs for FY 2021. Budgets which could be exclusively used for EVAP EP activities by MOA/DOA themselves were secured for FY 2018 and FY 2019. Although those for FY 2020 and FY 2021 were committed, their actual disbursements have not been done due to budget shortage issue of MOA.
2	The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	- EVAP-2 team made the 1st revised version of EVAP Extension Package, which was approved in the 2nd JCC held on 4th Jan. 2017. - Steps of the EVAP EP and their contents were modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC held on 27th July 2017. - This approved EVAP EP has been applied for the 2nd, 3rd and 4th Cycles without further modification. - Since the revised Package was established in full consideration of the results of field activities, it could be said that sufficient level of achievements has been made for this Output 2.
3	Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and	3.1. EVAP EP were reflected into annual extension plans of 6 DOAs for FY 2018, 9 DOAs for FY 2019 and 15 DOAs for FY 2020 and 16 DOAs for FY 2021. In line with their annual extension plans and target sub-sectors, target farmer groups were selected and EVAP EP activities have been conducted by respective DOAs. However, those EVAP EP activities for FY 2020 were not implemented due to pandemic of Covid-19 and budget issue of MOA and those for FY 2021 were suspended due to budget issue of MOA. 3.2. Number of farmers participating in respective steps of EVAP EP are as follows: <1st Cycle (Jericho, Nablus, Tubas): 6 farmer groups (FGs)>

Outputs	Status for achievement of indicators as of the end of Aug. 2021

conditions.

Step	Male	Female	Total
Step 2: Planning workshop	34	26	60
Step 2: Tour	51	51	102
Step 3: Planning workshop	47	50	97
Step 3: Market visit	49	39	88
Step 4: Family Resource & Gender Analysis	41	35	76
Step 5: Action Planning	37	43	80
Farm Record Keeping	24	28	52
Business matching & tour	22	43	65
Technical training, supports, follow-up	148	97	245
Step 7: Profitability Assessment	25	34	59
Total number of participants	478	446	924
Number of beneficiaries (at least one time participation)	165	118	283
Total number of sessions			70
Average number of participants per session			13.2

<2nd Cycle (Jenin, Tulkarem, Qalqilia): 6 FGs >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	62	18	80
Step 2: Planning workshop	66	12	78
Step 2: Tour	96	35	131
Step 3: Planning workshop	71	25	96
Step 3: Market visits	105	30	135
Step 4: Farming Improvement Planning	74	27	101
Step 5: Farm Record Keeping	59	26	85
Step 6: Extension Activities (Training & Technical Supports)	266	133	399
Step 7: Profitability Assessment	40	19	59
Total number of participants	839	325	1,164
Number of beneficiaries (at least one time participation)	290	85	375
Total number of sessions			77
Average number of participants per session			15.1

Note: 2 farmer groups (37 male members) in Khan Yunis DOA in GS were selected as target for the 2nd Cycle. Since only Step 1 activities were implemented, number of these farmers and their sessions are not included in the above table.

<3rd Cycle (Ramallah/Al Bireh, Jerusalem, Salfit): 6 FGs >

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	78	22	100
Step 2: Planning workshop	63	28	91
Step 2: Tour	91	32	123
Step 3: Planning workshop	69	29	98
Step 3: Market visits	87	52	139

Outputs	Status for achievement of indicators as of the end of Aug. 2021

Step 4: Farming Improvement Planning	50	22	72
Step 5: Farm Record Keeping	43	21	64
Step 6: Extension Activities (Training & Technical Supports)	277	65	342
Step 7: Profitability Assessment	36	13	49
Total number of participants	794	284	1,078
Number of beneficiaries (at least one time participation)	267	91	358
Total number of sessions			75
Average number of participants per session			14.4

<4th Cycle (Bethlehem, Hebron, North Hebron, South Hebron, Yatta): 6 FGs>

Step	Male	Female	Total
Step 1: Willingness and Readiness Confirmation	110	35	145
Step 2: Planning workshop	81	37	118
Step 2: Tour	94	46	140
Step 3: Planning workshop	93	28	121
Step 3: Market visits	87	27	114
Step 4: Farming Improvement Planning	71	29	100
Step 5: Farm Record Keeping	61	33	94
Step 6: Extension Activities (Training & Technical Supports)	340	253	593
Total number of participants	928	469	1,397
Number of beneficiaries (at least one time participation)	292	131	423
Total number of sessions			84
Average number of participants per session			16.6

Average number of participants per session (1st – 4th Cycles) is 14.9 which could be regarded as reasonable considering that 10 ~ 20 members per group are assumed as targets.

Based on the new indicator 3.2 revised and approved in 10th JCC (7 Oct. 2021), following figures are calculated. According to these figures, it could be interpreted that 68.7% of the farmers who participated in tours of Step 2 continued to participate in the following sessions, which nearly achieve target figure of 70%.

	Average No. of participants per group for Tour of Step 2 (A)	Average No. of participants per session (Step 3-7) (B)	(B)/(A)
1st Cycle	17	12.92	75.97%
2nd Cycle	21.83	14.83	67.93%
3rd Cycle	20.5	13.40	65.38%
4th Cycle	23.33	15.48	66.36%
1st ~ 4th Cycle	20.67	14.20	68.73%

3.3. Several cases that farmers have applied knowledge, techniques and

Outputs	Status for achievement of indicators as of the end of Aug. 2021

know-hows obtained from activities of the Package (good practice farmers visited by "awareness creation tours", market visits, technical trainings, etc.) have so far been heard from target farmers and DOA extensionists.
The results of Step 7 (Profitability Assessment) for target farmer groups are as follows:
1st Cycle (Feb. & Mar. 2019)
The ratios of farmers who have applied information and techniques from EVAP EP activities for their farming activities exceed **70%** in all Steps. In addition, all respondents have applied information/techniques obtained from any of the Steps. Many examples of applications were raised by participating farmers at the workshops of this Step 7.
2nd Cycle (Jan. 2020) and 3rd Cycle (Mar. & Apr. 2021)
Around **85%** (2nd Cycle) and **93%** (3rd Cycle) of participating farmers answered that they have applied techniques and information obtained from EVAP activities (study tours, planning sessions, lectures for technical training, technical training manuals/materials, etc.) for their actual farming. Many examples of applications were raised by participating farmers at the workshops of this Step 7.
Thus, high percentage of target farmers applied techniques and information provided by EVAP activities for their farming.

A new indicator 3.2 revised and approved in 10th JCC (7 Oct. 2021), following figures are calculated.
<1st Cycle: Plant farmer groups (5 groups)>

Problem	Improved	Not Improved	Not know
1. Low soil fertility	87.5%	9.4%	3.1%
2. Low quality of available seedlings	94.4%	5.6%	0.0%
3. Poor techniques of fertilization	88.9%	2.2%	8.9%
4. Poor techniques of pest & disease control	85.7%	9.5%	4.8%
5. Poor irrigation techniques (optimization of water use)	81.1%	13.5%	5.4%
6. Unsuitable crop selection unmatching market needs	81.4%	16.3%	2.3%
7. Low crop quality unmatching market needs	72.7%	3.0%	24.2%
8. Poor techniques of sorting and packing	64.5%	9.7%	25.8%
9. Unsuitable harvest timing unmatching market needs	83.3%	13.9%	2.8%
10. Undiversified market channels	79.3%	6.9%	13.8%
11. Low bargaining power	74.1%	11.1%	14.8%
12. Unsuitable sorting and packaging unmatching market needs	62.1%	20.7%	17.2%
13. High costs of farm inputs	79.5%	10.3%	10.3%
14. Long working hours	73.5%	23.5%	2.9%
15. High packaging costs	60.5%	34.2%	5.3%
16. High transportation costs	57.1%	34.3%	8.6%

* "To be improved" was not included in options for the 1st Cycle.
More than 70% of plant farmers responded 13 out of 16 problems have

Outputs	Status for achievement of indicators as of the end of Aug. 2021

been improved.

<1st Cycle: Livestock farmer group (1 group)>

Problem	Improved	Not Improved	Not know
1. Poor farm management	100.0%	0.0%	0.0%
2. Poor techniques of disease control	83.3%	16.7%	0.0%
3. High mortality rate of lambs	83.3%	16.7%	0.0%
4. Poor reproductive performance of ewes	50.0%	50.0%	0.0%
5. Poor techniques of fatting	66.7%	33.3%	0.0%
6. Poor techniques of processing milk	100.0%	0.0%	0.0%
7. Low price of processed products	33.3%	66.7%	0.0%
8. Undiversified market channels	40.0%	60.0%	0.0%
9. Low bargaining power and poor negotiation skills	100.0%	0.0%	0.0%
10. Unsuitable packaging of processed milk unmatching market needs	60.0%	20.0%	20.0%
11. High costs of feeds	40.0%	40.0%	20.0%
12. High costs of disease control	20.0%	80.0%	0.0%
13. Long working hours	100.0%	0.0%	0.0%
14. High transportation costs	80.0%	20.0%	0.0%

*"To be improved" was not included in options for the 1st Cycle.

<2nd + 3rd Cycle: Plant farmer groups (5 groups)>

Problem	Improved/ To be improved	No improve-ment	No answer
1. Low soil fertility	91.5%	6.4%	2.1%
2. Low quality of available seedlings	86.8%	10.5%	2.6%
3. Poor techniques of fertilization	94.9%	5.1%	0.0%
4. Poor techniques of pest & disease control	88.0%	12.0%	0.0%
5. Poor irrigation techniques (optimization of water use)	87.1%	12.9%	0.0%
6. Unsuitable crop selection unmatching market needs	96.3%	3.7%	0.0%
7. Low crop quality unmatching market needs	88.5%	7.7%	3.8%
8. Poor techniques of sorting and packing	83.3%	16.7%	0.0%
9. Unsuitable harvest timing unmatching market needs	84.6%	15.4%	0.0%
10. Undiversified market channels	80.0%	20.0%	0.0%
11. Low bargaining power	79.5%	15.4%	5.1%
12. Unsuitable sorting and packaging unmatching market needs	86.2%	13.8%	0.0%
13. High costs of farm inputs	71.9%	24.6%	3.5%

Outputs		Status for achievement of indicators as of the end of Aug. 2021

14. Long working hours	71.9%	28.1%	0.0%
15. High packaging costs	72.7%	22.7%	4.5%
16. High transportation costs	68.8%	28.1%	3.1%

More than 70% of plant farmers responded 15 out of 16 problems have been improved or are expected to be improved.

<2nd + 3rd Cycle: Livestock farmer groups (3 groups)>

Problem	Improved/ To be improved	No improve-ment	Not know
1. Poor farm management	92.3%	7.7%	0.0%
2. Poor techniques of disease control	92.3%	7.7%	0.0%
3. High mortality rate of lambs	85.7%	14.3%	0.0%
4. Poor reproductive performance of ewes	92.3%	7.7%	0.0%
5. Poor techniques of fatting	100.0%	0.0%	0.0%
6. Poor techniques of processing milk	81.8%	9.1%	9.1%
7. Low price of processed products	81.3%	18.8%	0.0%
8. Undiversified market channels	87.5%	12.5%	0.0%
9. Low bargaining power and poor negotiation skills	75.0%	12.5%	12.5%
10. Unsuitable packaging of processed milk unmatching market needs	100.0%	0.0%	0.0%
11. High costs of feeds	54.5%	27.3%	18.2%
12. High costs of disease control	47.4%	47.4%	5.3%
13. Long working hours	86.7%	13.3%	0.0%
14. High transportation costs	50.0%	50.0%	0.0%

More than 70% of livestock farmers responded 11 out of 14 problems have been improved or are expected to be improved.

4	The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. At the Step 4 (Farming Improvement Planning), target crops were selected and necessary technical trainings for Step 6 were discussed based on target farmers' needs. In consideration of these needs, various technical training materials which could be cultivation and farming manuals covering comprehensive steps or some steps depending on target crops/products have been prepared. In the fields of livestock, soil management, pest & plant disease management, technical manuals on specific issues (e.g. semen freezing technique, A.I., on-farm soil diagnosis, pest & plant diseases management, etc.) which might have high demands from farmers were also prepared. 4.2. Technical manuals were prepared with fully incorporating opinions of concerned DOA extensionists and staff of technical departments through Extension/Technical Taskforce Meetings and pre-training guidance, etc. Some manuals were prepared by DOA extensionists and/or technical staff of MOA themselves. On the other hand, according to the results of evaluation at Step 7 by target farmers of the 1st Cycle, nearly all farmers showed their satisfactions on Step 5 (Farm Record Keeping) and Step 6 (Extension Services and Technical Trainings) of EVAP activities which used technical manuals (58

Outputs		Status for achievement of indicators as of the end of Aug. 2021
		out of 59 respondents for Step 5, 54 out of 55 respondents for Step 6). Thus, it could be thought that farmers positively evaluate technical manuals prepared under EVAP activities. At Step 7 for the 2nd Cycle, all participating farmers showed their satisfactions (25 for very satisfied and 27 for satisfied) on technical training manuals/materials provided by EVAP. At Step 7 for the 3rd Cycle, nearly all participating farmers showed their satisfactions (25 for very satisfied, 23 for satisfied and 1 for not satisfied) on technical training manuals/materials provided by EVAP.

1.4. Achievement of the Project Purpose

Increase in net income from agriculture of the target farmers as the Project Purpose was checked at the workshops of Step 7 for target farmers of the 1st Cycle (Feb. & Mar. 2019), 2nd Cycle (Jan. 2020) and 3rd Cycle (Mar. & Apr. 2021).

Changes in net agricultural profits were calculated by comparing (i) the net profits from crops/livestock in which there were any changes by EVAP (present status) and (ii) the net profits from crops/livestock which are assumed to be cultivated or raised without EVAP activities (baseline status).

Net agricultural profits with EVAP have been increased for 2 years by 46.1% (1st Cycle), 60.9% (2nd Cycle) and 44.7% (3rd Cycle) in comparison with those without EVAP. Thus, annual increases in agricultural net profits are 20.9% (1st Cycle), 26.8% (2nd Cycle) and 20.3% (3rd Cycle) respectively, which exceed target figure of 8.0% increase of the Project Purpose.

Change in Agricultural Net Profits After/With EVAP

	Total Net Profit (NIS/Year) (Present)	Total Net Profit (NIS/Year) (Baseline)	No. of Sample Households (HH)	Average Net Profit (NIS/Year/HH) (Present)	Average Net Profit (NIS/Year/HH) (Baseline)	% (Present/ Baseline)	% (difference)	% Annual
1st Cycle (6 FGs)	1,115,419	763,233	59	18,905	12,936	146.1%	+46.1%	+20.9%
2nd Cycle (5 FGs)	1,830,175	1,137,440	56	32,682	20,311	160.9%	+60.9%	+26.8%
3rd Cycle (6 FGs)	713,277	492,924	48	14,860	10,269	144.7%	+44.7%	+20.3%

	No. (%) of farmers whose net profits increased	No. (%) of farmers whose net profits did not change	No. (%) of farmers whose net profits decreased
1st Cycle (6 FGs)	42 (71.2%)	15 (25.4%)	2 (3.4%)
2nd Cycle (5 FGs)	51 (91.1%)	5 (8.9%)	0 (0.0%)
3rd Cycle (6 FGs)	44 (91.7%)	1 (2.1%)	3 (6.3%)

1.5. Changes to the risks as identified under the PDM and Actions taken for their mitigation

Not applicable.

1.6. Progress in Actions undertaken by JICA

1.7. Progress in Actions undertaken by Ministry of Agriculture, Palestine

＜Progress and countermeasures＞

(1) Arrangement for an office for the Japanese Expert Team and necessary facilities.
New office space at the MOA main building was offered to EVAP-2 Team (including Japanese Experts) in Apr. 2018.

(2) Assignment of the counterparts.
Project Director (Assistant Deputy Minister for Technical Affairs) and Project Manager (Director General, GDoERD) were assigned. Members of 3 Taskforces (Monitoring, Technical, Extension) and field level C/Ps for the target DOAs (Jericho, Nablus, Tubas) were appointed.

Official EVAP Trainers and members of Extension Taskforce in charge of respective EVAP steps were assigned (Apr. 2017).

Field level C/Ps for 2nd Cycle DOAs (Qalqilia, Jenin, Tulkarem, Khan Yunis) were appointed in Oct. 2017.

All concerned staff of the 3rd Cycle DOAs (Salfit, Jerusalem, Ramallha/Al-Bireh) were regarded as the field level C/Ps for EVAP activities.

Field level C/Ps for 4th Cycle DOAs (Bethlehem, Hebron, North Hebron, Yatta, South Hebron (Dora)) were appointed in Nov. 2019.

1.8. Progress of Environmental and Social Considerations

Not applicable

1.9. Progress of Considerations on Gender/ Peace building/ Poverty Reduction

<Effectiveness of Gender Consideration Measures for the 3rd Cycle>

Sessions for Step 7 (Profitability Assessment) of the EVAP EP were conducted (Mar. & Apr. 2021) for 6 farmer groups of the 3rd Cycle with following participants to assess farmers' profits by EVAP activities as well as to evaluate such issues as information use, farmers' satisfactions on EVAP activities, improvement of problems, and effectiveness of gender consideration.

Targets	Participants (Respondents)		
	Male	Female	Total
Salfit Olive Farmers Extension Group (Salfit)	7	2	9
Dier Ballout Women Farmers Extension Group (Salfit)	0	9	9
Beit Doqqo Grape Farmers Extension Group (Jerusalem)	8	0	8
Al Sawahreh Arab Cooperative Society for Livestock Development (Jerusalem)	8	1	9
Al Mughayier Livestock Farmers Extension Group (Ramallah)	7	0	7
Al Musbah Olive Farmers Extension Group (Ramallah)	6	1	7
Total	**36**	**13**	**49**

Regarding effectiveness of gender consideration, following questions with gender viewpoints were asked to participating farmers of the 3rd Cycle.

A. Improve women's access/control to resources (for female members)

A-1. Did you easily participate in EVAP activities thanks to gender consideration measures (e.g. set appropriate data, time, venue for workshops, destination for tours, arrange separate vehicles for tours, welcome to bring children to tours/workshops, assign female extensionists as facilitators, etc.)?
A-2. Were your opinions appropriately taken by DOA facilitators at workshops and reflected to tour plans and technical training plans?
A-3. Did you obtain necessary information, knowledge and skills through tours, business matching, and technical trainings by EVAP?
A-4. Have you obtained networks to other farmers, markets, etc. through EVAP activities?
A-5. Did posting articles on activities of female farmers on Facebook by EVAP motivate you to be more involved with agricultural activities?

B. Improve division of works/responsibilities of family members and enhance their work efficiency and productivities

B-1. Have workloads of family members (particularly female farmers) for agricultural activities been decreased by applying knowledge and skills provided by EVAP activities?

C. Facilitate women's involvement in decision-making in family

C-1. Did you share information for market-oriented agriculture (e.g. market, technical, etc.) provided by EVAP activities with other members of family engaged in agricultural activities?
C-2. Have women members in your family been more involved with decision-making for agricultural activities after you participated in EVAP activities?

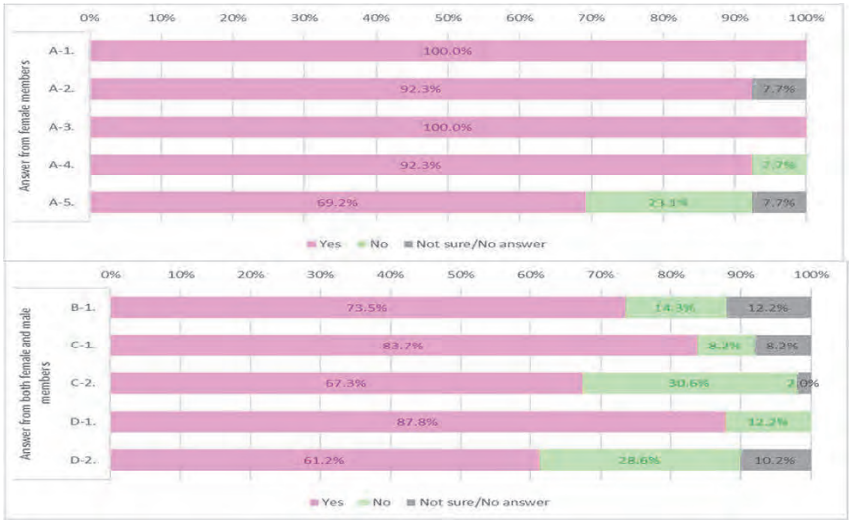
D. Facilitate gender awareness of male members and local communities

D-1. Have you had more communications and conversation with your wife/husband on improvement of your farming for market-oriented agriculture?
D-2. Did posting articles on activities of female farmers on Facebook by EVAP make your family members and community aware effectiveness of women's involvement in agricultural activities?

Results of aggregating answers from farmers are shown below.

Regarding questions A., all women answered that "they could easily participate in EVAP activities" (A-1) and "they could obtain necessary information/knowledge/skills through EVAP activities" (A-3). Nearly all women (except one) answered that "their opinions were appropriately taken and reflected to tour and training plans" (A-2) and "they have obtained networks to other farmers, markets, etc. through EVAP activities? (A-4). It could be thought that gender consideration measures taken by EVAP have facilitated women's active participation in activities and access to resources (information, knowledge and skills).

Regarding other questions, 87.8% of respondents answered "they have had more communications with other family members for improving their farming activities" (D-1) and 83.7% of them answered "they shared information provided by EVAP with other family members" (C-1). In implementing EVAP activities, DOA extensionists and EVAP-2 Team repeatedly requested participating farmers to share the information provided by EVAP with other family members. This could be thought to lead to the answers of C-1 and D-1.



1.10. Other remarkable/ considerable issues related/ affect to the Project (such as other JICA's projects, activities of counterparts, other donors, private sectors, NGOs etc.)

Due to influence by outbreak of Covid-19, EVAP-2 activities for target farmer groups were delayed. Considering this delay, MOA and JICA agreed to extend the termination of the Project from October 2021 to February 2022.

EVAP-2 activities for Gaza Strip have been suspended due to its political instability and influence of Covid-19. It was also agreed by MOA and JICA that EVAP-2 activities in Gaza Strip would be implemented through online.

2. Delay of Work Schedule and/ or Problems

Due to influence of Covid-19, EVAP activities for target farmer groups were delayed and 2nd C/P training in Japan which was planned to be done around Oct. 2020 was postponed. Instead of having a C/P training in Japan, some workshop sessions connecting between MOA/DOA in Palestine and relevant organizations/farmers in Japan (online virtual tour to Japan) are planned to be implemented in Oct. and Nov. 2021.

3. Modification of the Project Implementation Plan (see PO and PDM as per attached)

3.1. Plan of Operation (PO)

Project period was extended up to February 2022 from October 2021 (4 months extension). Accordingly, schedules of some activities of PDM and PO were modified as per their ver. 5.

Revision of indicators of Overall Goal, indicator 3-2 and 3-3 for Output 3, and narrative summary for Activity 1.3 were recommend by the terminal evaluation team. Based on these recommendations, PDM and PO were modified as per their ver. 6.

3.2. Other modification on detailed implementation plan

Not applicable.

4. Preparation of the Palestinian side toward after completion of the Project

(1) Policy

"EVAP Extension Package" which was developed by the EVAP-1 Project and has been practiced by the EVAP-2 Project was incorporated into "Palestinian National Agricultural Extension Strategy (PNAES) 2016-2019" (March 2016).

"National Agriculture Sector Strategy (2017-2022)" was prepared by Ministry of Agriculture. This EVAP-2 Project is in line with this Strategy, particularly its strategic objectives 3 (Increase in agricultural production, productivity, and competitiveness in local and international market, along with their contribution in gross domestic product and food security), 4 (Improvement of female and male farmers and entrepreneurs access quality agricultural services needed for increasing value along agricultural value chains) and 5 (Development of effective and efficient institutional and legal frameworks).

(2) Institutional aspect

EVAP Extension Package (EP) were reflected into annual extension plans of target DOAs for FY 2018, FY 2019, FY 2020 and FY 2021.

(3) Technical aspect

Based on knowledge, know-hows and experiences acquired from implementation of the EVAP EP activities with direct assistance from EVAP-2 Team as well as the e-Guideline of the EVAP EP prepared by EVAP-2 Team, the EVAP EP activities have been implemented by the MOA/DOAs themselves.

(4) Financial aspect

Budget ceilings which could be exclusively used for the EVAP EP activities by MOA/DOAs themselves were secured for FY 2018, 2019, 2020 and 2021. (However, actual budget disbursement for FY 2020 and 2021 were suspended due to budget shortage issue of MOA.)

System for smooth budget request and disbursement for implementing EVAP EP has been improved (e.g. preparation of "manual on budget request and disbursement for EVAP EP", introduction of "petty cash system", etc.).

Project Monitoring Sheet I ver. 10（Based on Project Design Matrix ver. 6）

Project Title: The Project on Improved Extension for Value-Added Agriculture (EVAP Phase 2)

Version 10

Implementing Agency: Ministry of Agriculture, General Directorate of Extension and Rural Development

Dated 2021/10/13

Target Group: Small and medium sized farmers in all Districts of West Bank and Gaza Strip

Period of Project: July 2016 - February 2022

Project Site: All Districts of West Bank and Gaza Strip

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal					
In all Districts of West Bank & Gaza Strip, the number of farmers who have experienced a rise in their income through the benefits of extension services based on the Improved EVAP Extension Package have increased.	1. Extension activities using the EVAP Extension Package are carried out annually for at least two farmer groups per DOA in all Districts of the West Bank and Gaza Strip. 2: The average farm income of farmer groups whose extension activities are implemented using the EVAP Extension Package increases by 8%.	Ex-post evaluation		-	-
Project Purpose					
In all Districts of West Bank & Gaza Strip, the income of the members of the farmers' groups targeted by the Project has risen based on the Improved EVAP Extension Package.	The net income*1 from agriculture*2 have increased among the targeted small and medium sized farmers by 8.0% at the time of Project completion*3. **1: Current (nominal) prices will be applied.* **2: It will specify agriculture activities related to target crops under EVAP-2.* **3: Data on profitability increase of target crops under EVAP-2 for 2 years will be calculated by the target farmers based on their farm records (not at the time of Project completion).*	Baseline survey, Project evaluation report (End-line Survey)	1. There are no natural disaster incidents in the region.	Achievement with sufficient level. According to the evaluation results of the 1st, 2nd and 3rd Cycle activities, average annual increases in agricultural net profits of target farmers due to EVAP activities are 20.9%, 26.8% and 20.8%, respectively.	
Outputs					
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.	1.1. All targeted MoA and DoA personnel*1 (i.e. the participants of Activity 1.2) demonstrate good understanding of EVAP Extension Package, including its principles and objectives. **1: Those nominated as Project counterparts.*	Presentation materials used under Activity 1.4 Interviews	1. There are no drastic climatic changes. 2. The market value of agricultural produce does not decline drastically.	Achievement with sufficient level. Understanding of C/Ps on EVAP EP seems to be deepened as related activities have been conducted.	
	1.2. All DoA annual plans reflect the EVAP Extension Package.	DoA annual plans		Achievement with sufficient level in terms of reflecting EVAP EP into annual plans of the 1st, 2nd, 3rd and 4th Cycle DOAs.	
Output 2: The EVAP Extension Package is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank and Gaza Strip.	2.1. The Provisional EVAP Extension Package incorporate measures to ensure that its extension services reach out to small and medium sized farmers.	Revisions made through Activities 2.1 through 2.5 and their reasons.		Achieved with sufficient level. The 1st revised EVAP EP was approved in the 2nd JCC. It was revised based on the results of the 1st Cycle activities and approved in the 3rd JCC. This approved EVAP EP has been applied for the 2nd, 3rd and 4th Cycles without further modification.	
	2.2. The improved EVAP Extension Package is finalized and approved by JCC.	JCC minutes			
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.	3.1. All DoAs implement their annual plan without direct support of the Project.	M&E Report of the DoAs one year after implementation of the cycle under Activities 3.1-3.6.		Certain level of achievement. EVAP EP activities by MOA/DOAs themselves have been conducted in FY 2018 and FY 2019. 33 farmer groups were selected as targets. However, EVAP activities by themselves for FY 2020 and FY 2021 were suspended due to outbreak of Covid-19 and budget shortage issue of MOA.	
	3.2. More than 70% of the farmers who participated in "Step 2-2: Awareness Creation Tour" in activity 3.6 participate in following training sessions of Step 3 to 7.	Records kept by the extensionists		Nearly achieved. See Summary Table for details of related activities and number of participating farmers and continuation of farmers' participation.	
	3.3. On average, more than 70% of farmers responded that the problems referred in Step 7 have been "improved" or are "expected to be improved".	Results of Activity 3.7 (End-line Survey Report)		Certain level of achievement See Summary Table for details of farmers' application of suggested techniques/know-hows and improvement of	
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.	4.1. Farming manuals that cover the comprehensive steps from planting to marketing for each relevant agricultural products, based on the needs of the small and medium sized farmers, have been developed.	Farming manuals		Achievement with sufficient level. Variety of training materials which could be farming manuals covering comprehensive steps or some steps depending on target crops/products were prepared based on needs of target farmers of the 1st, 2nd, 3rd and 4th Cycles.	
	4.2. The farming manuals receive positive feedback from the extensionists and farmers.	Questionnaire survey among extensionists and farmers		Nearly achieved Technical manuals were prepared with incorporating opinions of concerned DOA extensionists and staff of technical departments. Some manuals were prepared with their initiatives. According to the evaluation results of the 1st, 2nd and 3rd Cycle activities, nearly all farmers showed their satisfactions on technical trainings and technical manuals/materials prepared by EVAP.	

Activities	Inputs		Important Assumption
	The Japanese Side	**The Palestinian Side**	
1.1 Establish Task Forces for implementation of the Project. 1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and DoAs in order to improve understanding of the EVAP Extension Package, including its underlying concept. 1.3 Support development of a one-year annual extension plan for targeted DOAs, taking into account the reflection of the EVAP Extension Package. 1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans developed under Activity 1.3. 2.1 Review the EVAP Extension Package developed under EVAP, including the contents of the activities under each step, with a view to mainstreaming gender and improving the effectiveness of extension services. 2.2 Propose a Revised Draft EVAP Extension Package based on the review under the activity 2.1. 2.3 Select farmer groups from among Districts in the West Bank, taking into account the characteristics of their group types and the results of gender analysis, for the purpose of revision of the EVAP Extension Package. 2.4 Provide extension services, in cooperation with concerned C/P personnel, based on the Revised Draft EVAP Extension Package on a trial basis. 2.5 Develop the 'Provisional EVAP Extension Package' based on the results of the activities under Activity 2.4. 3.1 Select target Districts and new subsectors to provide extension services based on the 'Provisional EVAP Extension Package'. 3.2 Conduct survey on agricultural practice including gender roles in the target Districts among the small and medium sized farmers' groups. 3.3 Review the results of the survey conducted under the Activity 3.2 and categorize the farmer groups in the target areas based on their characteristics. 3.4 Select the farmer groups to provide extension services based on the 'Provisional EVAP Extension Package', taking into account the results of the Activity 3.3. 3.5 Develop the details in each extension step based on the understanding of the characteristics of the farmers' groups selected under Activity 3.4. 3.6 Provide extension services, including demo farms, based on the 'Provisional EVAP Extension Package' to the selected farmer groups, reflecting the details in each extension step considered under Activity 3.5. 3.7 Monitor and evaluate the outcome of the extension services provided under the Activity 3.6. 4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers, from soil preparation to marketing, by conducting monitoring of their Activities under Output 3, including gender perspectives. 4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities. 4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced in order to tackle the bottlenecks identified under Activity 4.1. 4.4 Verify the applicability of the newly introduced technology under Activity 4.3 based on the verification criteria and conduct field demo farms, as required. 4.5 Based on the Activities 4.1 - 4.4, develop farming manuals that cover the comprehensive steps from planting to marketing for each target commodity, based on the needs of the small and medium sized farmers.	a. Dispatch of Japanese Experts 1. Chief Advisor/ Farm management (1)/ Agricultural Policy/ Fruit production 2. Deputy Chief Advisor/ Farm management (2)/ Field crop cultivation (1) 3. Extension planning 4. Gender/ Farmers organizations 5. Vegetable production (1) 6. Vegetable production (2)/ Field crop cultivation (2) 7. Animal husbandry/Veterinary/ Animal disease diagnosis 8. Water-saving/ Water use techniques/ Soil management 9. Marketing 10. Training materials development 11. Monitoring/ Planning and reporting system development b. Counterpart training program Trainings (2 times) in Japan c. Equipment and materials Vehicles, other equipment and materials to be agreed upon in consideration of needs. d. Local operation costs: budget related to the Project activities	a. Personnel (Project counterpart) 1. Project Director 2. Project Manager 3. Subject Matter Specialists (SMS) 4. Extensionists 5. Other relevant officials of the Ministry of Agriculture b. Office space and necessary facilities at Ramallah for Experts c. Local cost (to be specified) Each targeted District will utilize the available resources for implementing "EVAP Extension Package"-based extension services after the second year of each targeted District.	1. Price of agricultural inputs does not suddenly rise. **Pre-Conditions** Palestinian policy for agricultural cooperatives and extensions do not change. The international political environment surrounding Palestine does not drastically deteriorate. Counterpart personnel are properly assigned in MoA and DOA. **<Issues and countermeasures>**

1) EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Th. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.
2) Regarding the Activities under Output 2, the Project will initially revise the "EVAP Extension Package" in those Districts in which the same subsectors of agriculture as the Districts under the previous phase of EVAP (i.e. irrigated vegetable and livestock) is practiced, in order not to introduce unnecessary elements of complication.
3) Regarding the Activities under Output 3,the Project provides direct support to implement the first cycle of the "EVAP Extension Package" for each District in West Bank. Thereafter, each DOA would be held responsible for independent implementation of "EVAP Extension Package"-based extension services with periodical follow-up by the MOA and Japanese Experts.
4) When targeting Gaza Strip for activities under Output 3, where accessibility is limited for the Japanese Experts due to security advisory, the DOA officials will be invited to West Bank Districts to take part in training or SMS and extensionists of the West Bank Districts provide training in Gaza in order to enable them to independently implement their extension activities with periodical follow-up by the MOA and Japanese Experts. Objectively verifiable indicators for Gaza Strip will be measured for Output 1 only.
5) Refers to those equipment/facilities introduced under EVAP1, including compost-making facilities, silage-making machineries, equipment for soil analysis laboratory, AI service-related equipment.

Project Monitoring Sheet II ver. 10 (based on Plan of Operation ver.6)

Version 10
October 13, 2021

ANNEX2

Project Title: The Project on Improved Extension for Value-Added Agriculture in Palestine (EVAP Phase 2)

Monitoring

Inputs	Phase / Year	1st Period 2016–2017	2nd Period 2018–2019	3rd Period 2020–2021–22	Remarks	Issue	Solution
Expert							
Chief Advisor/ Farm Management (1)/ Agricultural Policy/ Fruit production	Plan				Planned assignment schedules were modified as the Project period was extended. Their actual assignment schedules/periods were modified in consideration of progress of the Project activities.	None.	
	Actual						
Deputy Chief Advisor/ Farm Management (2)/ Field Crop Cultivation (1)	Plan						
	Actual						
Extension Planning/Training Materials Development	Plan						
	Actual						
Gender/Farmers Organizations	Plan						
	Actual						
Vegetable Production (1)	Plan						
	Actual						
Vegetable Production (2)/ Field Crop Cultivation (2)	Plan						
	Actual						
Animal Husbandry/ Veterinary/ Animal Disease Diagnosis	Plan						
	Actual						
Water-Saving/ Water Use Techniques/ Soil Management	Plan						
	Actual						
Marketing	Plan						
	Actual						
Monitoring/ Planning and Reporting System Development	Plan						
	Actual						
Equipment							
Vehicles	Plan				Minibus and 4WD pickup truck were procured, and are lent from JICA Palestine Office to JICA Expert Team for EVAP-2 activities. Six 4WD pickup trucks provided to MOA in May were delivered to the 1st and 2nd Cycle DOAs on 28th Jun. 2018. Eight 4WD pickup trucks provided to MOA in March were delivered to the 3rd and 4th Cycle DOAs on 25th Mar. 2020. Two minibuses were provided to MOA in May 2021.	Status of using these cars by respective DOAs and MOA.	
	Actual						
Facilities/equipment necessary for effective extension	Plan						
	Actual						
Training in Japan							
Training for Counterpart Personnel	Plan				1st training in Japan was held in Oct. 2018. 10 MOA counterparts participated in SHEP/ISMAP Workshop held in Egypt (1-6 Mar. 2020). 2nd training in Japan planned in Oct. 2020 was cancelled. Online workshops connecting between Japan and Palestine is planned to be implemented in Oct. & Nov. 2021.		
	Actual						

Activities / Sub-Activities	Year	2016–2017–2018–2019–2020–2021–22	Responsible Organization: Japan	Responsible Organization: Palestine	Achievements	Issue & Countermeasures
Output 1: The implementation and management capacity of the concerned officials of the Ministry of Agriculture and Directorate of Agriculture (DoA) is strengthened.						
1.1 Establish Task Forces for implementation of the Project.	Plan		JICA	MOA	Completed as scheduled.	None.
	Actual					
1.2 Conduct seminars and training for concerned officials of the Ministry of Agriculture and District Agriculture Offices (DoAs).	Plan		JICA	MOA	Series of Taskforce (Extension, Technical, Monitoring) Meetings, pre-training guidance/meetings with 1st, 2nd, 3rd and 4th Cycle DOAs were held.	None.
	Actual					
1.3 Support development of annual extension plans by the targeted DoAs.	Plan		JICA	MOA	Support 1st, 2nd, 3rd and 4th Cycle DOAs for preparing annual extension plans for FY2021.	Continuous follow-up implementing EVAP EP by 1st, 2nd, 3rd and 4th Cycle DOAs.
	Actual					
1.4 Convene Workshop(s) for the DoAs to report progress in their implementation of the annual plans.	Plan		JICA	MOA	Not yet implemented as scheduled.	None.
	Actual					
Output 2:The EVAP Extension Package[1] is revised and improved as an applicable agricultural extension method to be utilized in all Districts of West Bank & Gaza Strip.						
2.1 Review the EVAP Extension Package, with a view to mainstreaming gender and improving the effectiveness of extension services.	Plan		JICA	MOA	Completed as scheduled.	None.
	Actual					
2.2 Propose a Revised Draft EVAP Extension Package.	Plan		JICA	MOA	Completed as scheduled (The 1st revised EVAP EP was approved in the 2nd JCC).	None.
	Actual					
2.3 Select farmer groups from among Districts in the West Bank for the purpose of revision of the EVAP Extension Package.	Plan		JICA	MOA	Completed as scheduled (Target farmer groups for the 1st Cycle were selected).	None.
	Actual					
2.4 Provide extension services based on the Revised Draft EVAP Extension Package on a trial basis.	Plan		JICA	MOA	Completed with a trial basis. See 3-6 for progress in extension service activities for target farmers.	None.
	Actual					
2.5 Develop the 'Provisional EVAP Extension Package'.	Plan		JICA	MOA	EVAP EP was modified with reflecting results of the 1st Cycle activities and approved in the 3rd JCC. e-Guideline of EVAP EP was developed. Its update is underway. Online Monitoring System was developed. The system has been used by MOA/DOAs.	Actual use of e-Guideline and Online Monitoring System will be followed up.
	Actual					
Output 3: Through the extension activities utilizing the revised and improved EVAP Extension Package, market-oriented agriculture is practiced by the target farmer groups in the target Districts by considering their predominant agriculture activities and conditions.						
3.1 Select target Districts and new subsectors to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan		JICA	MOA	Target Districts for the 1st, 2nd, 3rd and 4th Cycles were selected.	None.
	Actual					
3.2 Conduct survey on agricultural practice including gender roles in the target Districts.	Plan		JICA	MOA	EVAP-2 team conducted the basic survey to grasp current situations for 1st and 2nd Cycles. DOAs selected target sub-sectors for 3rd and 4th Cycles.	None.
	Actual					
3.3 Review the results of Activity 3.2 and categorize the farmer groups in the target areas.	Plan		JICA	MOA	Basic information of Districts/areas was considered for categorizing and selecting target farmer groups.	None.
	Actual					
3.4 Select the farmer groups to provide 'Provisional EVAP Extension Package'-based extension activities.	Plan		JICA	MOA	Target farmer groups for the 4th Cycle were selected in Sep. - Oct. 2019.	None.
	Actual					
3.5 Develop the details in each extension step.	Plan		JICA	MOA	Completed for 4th Cycle.	None.
	Actual					
3.6 Provide 'Provisional EVAP Extension Package'-based extension services, including demo farms, to the selected farmer groups.	Plan		JICA	MOA	Ongoing for 4th Cycle.	None.
	Actual					
3.7 Monitor and evaluate the outcome of the Activity 3.6.	Plan		JICA	MOA	Done for 3rd Cycle (Mar. & Apr. 2021).	None.
	Actual					
Output 4: The appropriate technologies necessary for practicing market-oriented agriculture by small and medium sized farmers are verified and listed in an organized manner.						
4.1 Identify the bottlenecks among the series of farming activities of the small and medium sized farmers.	Plan		JICA	MOA	Problems/needs were raised by target farmers of the 4th Cycle.	None.
	Actual					
4.2 Collect and assess the existing technical training and extension materials and available equipment/facilities.	Plan		JICA	MOA	Done as scheduled.	None.
	Actual					
4.3 Select appropriate technologies, good agriculture practices and equipment/facilities to be introduced.	Plan		JICA	MOA	Ongoing.	None.
	Actual					
4.4 Verify and conduct field demo farms, as required, the applicability of the newly introduced technology based on the verification criteria.	Plan		JICA	MOA	Done for the 4th Cycle.	None.
	Actual					
4.5 Develop farming manuals that cover the comprehensive steps from planting to marketing.	Plan		JICA	MOA	Done for the 4th Cycle.	None.
	Actual					
Duration/Phasing	Plan					
	Actual					

Monitoring Plan	Year	2016–2017–2018–2019–2020–2021–22	Remarks	Issue	Solution
Monitoring					
Joint Coordinating Committee	Plan		9th JCC was held on 7 Oct. 2021.		
	Actual				
Set-up the Detailed Plan of Operation	Plan				
	Actual				
Submission of Monitoring Sheet	Plan				
	Actual				
Monitoring Mission from Japan	Plan		JICA Terminal Evaluation on the Project was held Sep. - Oct. 2021.		
	Actual				
Joint Monitoring	Plan				
	Actual				
Post Monitoring	Plan				
	Actual				
Reports/Documents					
Inception Report	Plan				
	Actual				
Progress Report	Plan				
	Actual				
Training Materials	Plan				
	Actual				
Project Completion Report	Plan				
	Actual				
Public Relations					
Establishment and Operation of Web Site	Plan		In stead of website, Facebook has been used for public relations activities.		
	Actual				
Seminars	Plan				
	Actual				

[1] EVAP Extension Package is a farmer-oriented/ demand-driven and market-oriented extension method which has been used in EVAP and will be spread out into all West Bank & Gaza Strip Districts under EVAP Phase 2. Through EVAP Extension Package, several technologies are verified and disseminated such as: compost, grafting, silage, artificial insemination, water saving technology, record keeping, group purchasing, etc. Other technologies concerning the newly target subsectors will be selected and verified based on the verification guideline developed under the Project.