

7 SOCIAL AND COMMUNITY DEVELOPMENT PROGRAM

Target and Strategy

With the Social and Community Development Program, the overall goal has been set to enhance the living condition of the people in the region, through the improvement of social services and income generation activities. Considering the current situation in relation to the Millennium Development Goals (MDGs) and MTDP goals, the development targets should be to: (i) improve maternal and child health, (ii) improve education reflecting local needs, (iii) ensure the sustainability of the environment, (iv) eradicate poverty, and (v) promote women’s empowerment.

In order to achieve the above targets, it is suggested that strategies include; (i) a holistic approach to improve the social conditions, (ii) improvement in service delivery in the health sector, (iii) improvement in service delivery in the education sector, (iv) improvement in the other social services, and (v) community empowerment through a participatory approach.

(1) Holistic Approach to Improve the Social Conditions

The current mechanism for improving the living standard has two channels in terms of its multi-sectoral aspects: a governmental channel and a non-governmental channel. Both the governmental and non-governmental organizations work in social services delivery. However, the governmental and non-governmental organizations do not, in general, possess mechanisms for connecting themselves in this regard, and it is therefore necessary to establish some kind of mechanisms at the local level to link and unite them for efficient development, thus encouraging the participation of the community. The following figure shows a strategy for the holistic approach which combines the activities of non-government organizations to support governmental strategies for the improvement in social conditions at the local level.

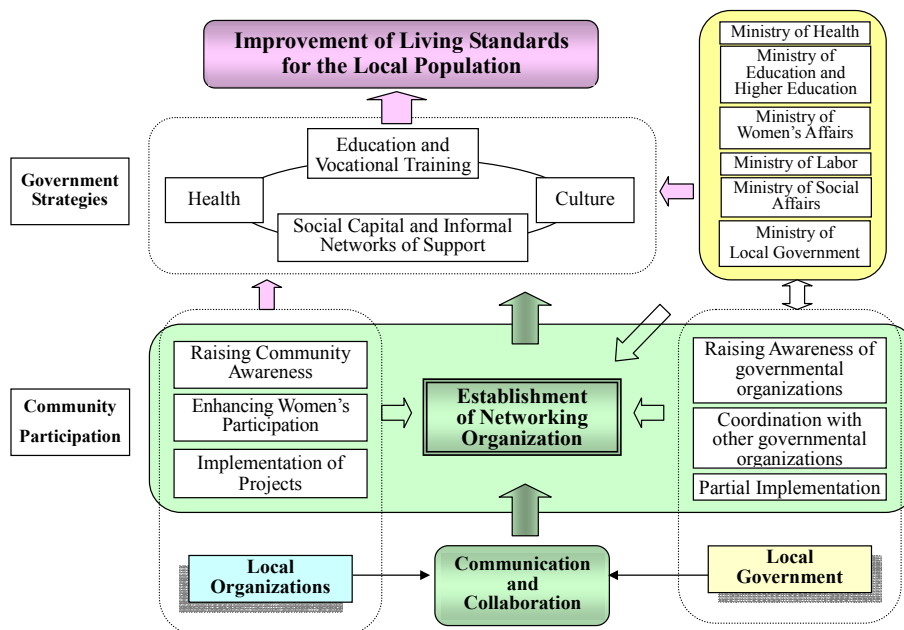


Figure S-23 Holistic Approach to Social and Community Development

(2) Improvement in Service Delivery in the Health Sector

In order to improve the living standard, it is also necessary to improve the social services provided by the government, since they are the main providers. To improve these services, efforts are required at the central and local levels. In the health sector, the focus in the target areas should be on: (i) special attention to the infant mortality rate (IMR), (ii) the quality of service provided by the existing public health service, and (iii) the effectiveness of the existing public health service.

(3) Improvement in Service Delivery in the Education Sector

In the education sector, the focus should be on: (i) educational infrastructure, (ii) the quality of teaching, and (iii) technical and vocational training to reflect the needs of the society.

(4) Improvement in Other Social Services

In addition to the health and education sectors, (i) water, (ii) wastewater, and (iii) solid waste management should be addressed for improvement in service delivery to the people and communities.

(5) Community Empowerment

Community empowerment here means the ability to organize the community, to manage the community organizations in a democratic manner with shared information, to enhance women’s empowerment, and to coordinate their ownership of community issues through community participation. As well as being acknowledged as a useful tool, the participatory approach is seen as a goal of democracy in social development. The traditional coherences generally act in the norms which prevent equity and participatory development from taking place daily due to the tacit power relationships, conflicts and diversity of interests in the community. It is necessary to orient the traditional coherence towards the modern system and to accommodate it within the modern system.

With the above strategies, a pilot quick impact project for community-based olive oil processing and marketing has been executed in the course of this Study. The pilot project has endorsed the theory that the participatory approach is effective in the income generation activities at the community level.



[Clockwise] Bottled Olive Oil (QIP Product),
Olive Oil Tasting Workshop, Soap Making
Training, Olive Oil Soap (QIP Product)

Figure S-24 Community-based Olive Oil Processing and Marketing

Likewise, several workshops have been held in the course of this Study for the empowerment of women in the Jericho and Jordan Rift Valley area. Through the workshops, it has been found that women in the Valley area are eager to collaborate in several income generation activities, like food processing and handicraft. They emphasize the importance of opportunities to meet and exchange information among themselves for cooperation.



Women's Seminar Held in Tubas

Main Program Components

The main components of the social and community development program are: (i) delivery of social services, (ii) community participation and (iii) income generation, as shown in the figure below. The income generation component will target the improvement of the economic situation of individuals, which would accelerate community participation. Enhanced community participation, through community development planning and empowerment, will raise the awareness of the population regarding social services and will contribute to better delivery of services by enabling the sharing of a common vision with governmental bodies and other service providers at the community level.

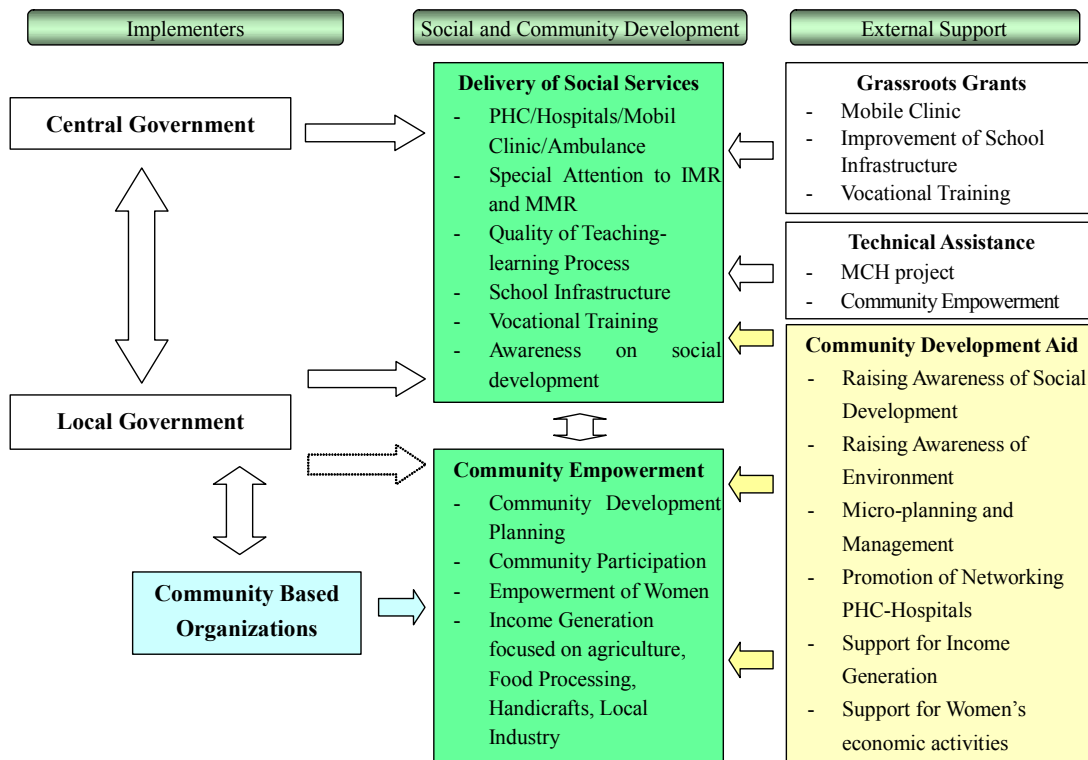


Figure S-25 Conceptual Model for Social and Community Development

Recommended Programs for Implementation

It is recommended that the following projects/programs be implemented in the short term.

Table S-9 Recommended Programs for Social and Community Development

Sector / Program		Responsible Agencies
Social Service Delivery Improvement		
1. Health	1.1 Networking PHC-Hospitals	MoH
	1.2 Mobile clinic to improve access to PHC	MoH
	1.3 Equipment for Tubas hospital	MoH
	1.4 Improvement in services at Jericho hospital	MoH
2. Education	2.1 Community participatory micro-planning	MoEHE
	2.2 School building facilities in Jericho, Tubas, and 'Aqqaba	MoEHE and LGUs
	2.3 Technical and vocational training	MoEHE and MoL
3. Water Supply/Sewerage	3.1 Improvement in village water supply system	PWA and LGUs
	3.2 Pumping equipment for the well in Tammun	PWA and LGUs
	3.3 Small biological wastewater treatment systems	PWA and LGUs
4. Solid Waste Management	4.1 Promotion of community composting	MoLG-JCspd
	4.2 Promotion of separate collection	MoLG-JCspd
	4.3 Recycling of agricultural waste	MoA
5. Other Social Services	5.1 Improvement in community centers	LGUs
	5.2 Study on solar energy utilization	PENRA and LGUs
Community Empowerment Program (CEP)		
1. Establishment of community-based organizations and systems/mechanisms		MoLG, MoSA and LGUs
2. Networking among NGOs		LGUs
3. Utilization of Micro-finance		MoI and MoF

Community Empowerment Program (CEP) is a key input in the Social and Community Development Program. CEP includes any activities listed in the above recommended programs for social service delivery improvement, and income generation activities. The process of CEP is the community oriented activities by community based organizations (CBOs) with guidance/assistance by local administrations and NGOs. For implementation of CEP, recommended are (i) good establishment of organizations and the system/mechanisms for operation and management, (ii) requirement for advisory technical assistance, (iii) networking with NGOs, and (iv) utilization of micro-finance.

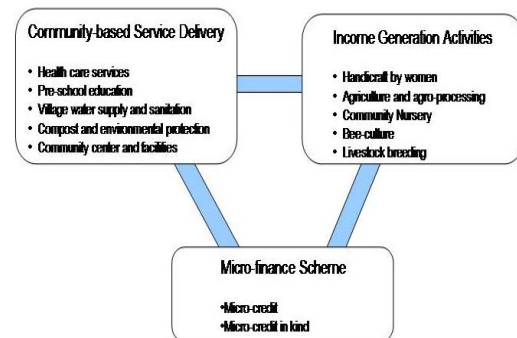


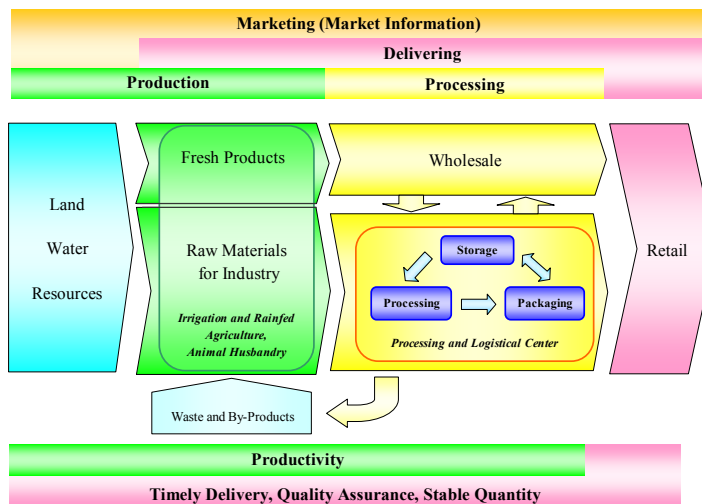
Figure S-26 Community Empowerment Activities

Formation of CBOs is essential to implement CEP. Community here is categorized into (i) local administrative authorities and (ii) voluntary coalitions. Local authorities, in this case, are village councils and JCspds, and they are expected to lead the programs for social service delivery at the community/village level. On the other hand, voluntary coalitions are formed for income generation activities, in general, and they might be called the CBOs for income generation.

8 AGRICULTURE AND AGRIBUSINESS DEVELOPMENT PROGRAM

Strategies for Agriculture and Agribusiness Development

An overall strategy is proposed for agriculture and agribusiness development in the Jericho and Jordan Rift Valley area. Basically, agriculture and agribusiness are developed in line with a value chain from the production side to the sales of products to customers, as illustrated in the diagram. Economic value should be added at each stage of the product flow to the maximum extent possible. At the production stage, the value of fresh agricultural products and products for industrial raw materials should be maximized with the least possible cost in



Source: JICA Study Team

Figure S-27 Value Chain in Agriculture Development

inputs and the highest return from outputs. Quality is an important factor in attaining higher returns, in addition to providing a stable supply to the markets. All stakeholders are guided to follow the principle of the value chain in agricultural and agribusiness development in the region.

Water Resources Management

To secure water for agriculture and other uses, several strategies are proposed in the water management and water allocation in the Jericho and Jordan Rift Valley area.

- (i) To make utmost use of potential water resources

To maximize the use of the limited water resources and minimize the waste, five measures are proposed, i.e., (a) improvement in spring water conveyance losses, (b) rehabilitation of non-functioning wells, (c) development of new wells with approval of the JWC, (d) harvesting of storm water and artificial infiltration, and (e) water recycling. Of the new water resources, spring water will be allocated first for domestic use and then allocated to satisfy irrigation demand and other activities to support the economic growth as shown in the figure.

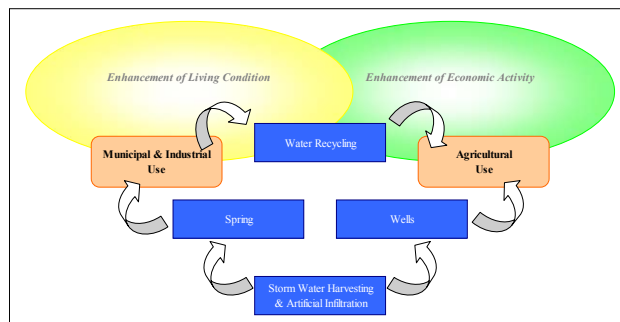


Figure S-28 Comprehensive Water Resource Allocation

- (ii) To enhance water use efficiency in irrigation to attain economic growth in the agricultural sector, by means of water saving irrigation

- (iii) To minimize the environmental impact through development of a system for wastewater collection, disposal and treatment, as well as re-use of treated water for irrigation purposes
- (iv) To establish an efficient water supply network, with particular attention to the water supply conveyance and network systems, not only for irrigation water supply, but also for domestic water supply to the communities
- (v) To strengthen the governance on water resource management, through establishment of rules and/or regulations on water rights and water use, as well as formation of water users' associations for proper distribution and management, inclusive of a water charge system.

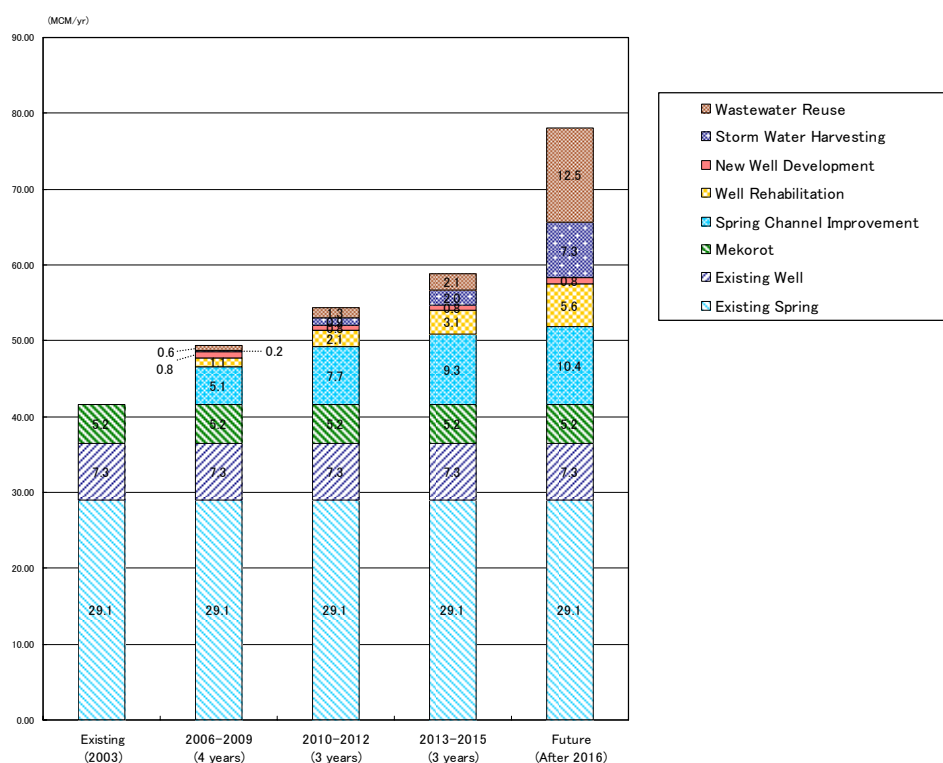
Available Water Resources

Potentially available water in the Jericho and Jordan Rift Valley area is assessed as summarized in the following table and figure.

Table S-10 Potentially Available Water in Jordan Rift Valley Area

Water Resource	Available Water Volume				
	Existing (2003)	2006-2009 (4 years)	2010-2012 (3 years)	2013-2015 (3 years)	Future (After 2016)
	(MCM/yr)	(MCM/yr)	(MCM/yr)	(MCM/yr)	(MCM/yr)
Existing Springs	29.07	29.07	29.07	29.07	29.07
Existing Wells	7.32	7.32	7.32	7.32	7.32
Mekorot	5.16	5.16	5.16	5.16	5.16
Spring Channel Improvement		5.07	7.68	9.31	10.38
Well Rehabilitation		1.11	2.10	3.09	5.64
New Well Development		0.76	0.76	0.76	0.76
Storm Water Harvesting		0.20	0.90	2.00	7.26
Wastewater Reuse		0.63	1.33	2.13	12.50
Total <i>(Comparing with the existing volume)</i>	41.55	49.31 <i>(+7.76)</i>	54.32 <i>(+12.77)</i>	58.85 <i>(+17.29)</i>	78.10 <i>(+36.54)</i>

Source: JICA Study Team estimate



Source: JICA Study Team

Figure S-29 Future Water Resource in Jordan Rift Valley

Crop Production

For development of irrigated agriculture in the Jericho and Jordan Rift Valley area, three strategies are to be adopted, i.e., (i) water saving agriculture, (ii) market-oriented agriculture, and (iii) introduction of a hydroponic system for greenhouses.

Availability of water for domestic, tourism, public and industrial purposes has been assessed first with the cited water allocation policy. The study results indicate that the increase in available water for crop production will be around 11.26 MCM/year.

In promoting water saving agriculture, water economy is taken into account. Gross margins of agricultural products per units of water required for cultivation differ by crop, and farmers are guided to cultivate less water consumptive crops for water saving agriculture in addition the marketability of the products. The gross margin per water unit has been analyzed as reproduced in the following. As is clear from the figures, profitability of vegetables cultivated in greenhouses (GH) is much higher than the products cultivated outdoors. Water saving agriculture is therefore promoted strategically both for water efficiency and profitability from the crops.

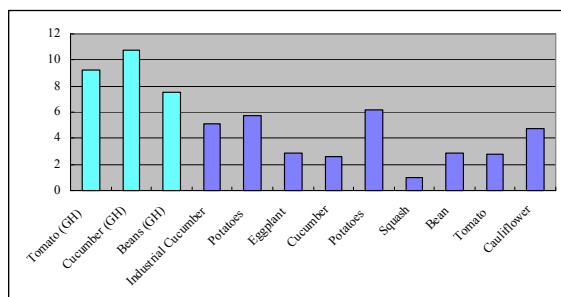


Figure S-30 Gross Margin per Water Unit by Crop

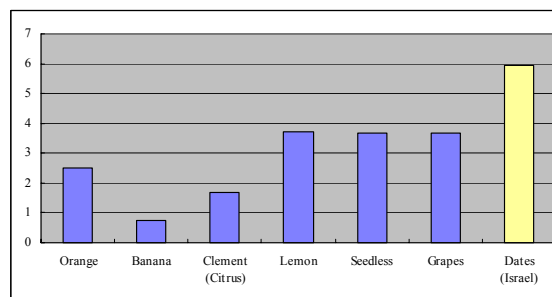


Figure S-31 Gross Margin per Water Unit by Fruit

The possibility of improvement in the present farming systems has been examined to reach a recommendation that the improvement in cropping patterns by the introduction of advanced production technologies (e.g., plastic tunnels and greenhouses) with an improved irrigation system and an increase in date cultivation will enhance the profitability of irrigated agriculture. A future cropping pattern under water-saving agriculture is proposed as tabulated in the following.

Table S-11 Assumed Future Cropping Pattern under Water Saving Agriculture

Jordan Rift Valley		Assumed Future Cropping Pattern (2015)					
Crop	2015 Area Share (%)	Area (Dunum)	Gross Mar (NIS)	Mar Share (%)	Water Req. (MCM)	Water Share (%)	Gross Mar./m ³ Water Req.
Green House Vegetables							
Tomatoes	5.00%	3,266	39,169,673	32.98%	3.919	10.04%	9.23
Cucumbers	5.00%	3,266	31,678,616	26.67%	2.939	7.53%	10.78
Beans	5.00%	3,266	14,805,777	12.47%	1.959	5.02%	7.56
Others	0.00%	0	0	0.00%	0.000	0.00%	
Outdoors Vegetables							
Ind. Cucumbers	6.00%	3,919	7,976,702	6.72%	1.567	4.02%	5.09
Potatoes	6.00%	3,919	10,164,848	8.56%	1.763	4.52%	5.76
Eggplants	5.50%	3,592	8,355,108	7.04%	2.847	7.36%	2.91
Cucumbers	4.50%	2,939	3,771,848	3.18%	1.469	3.76%	2.57
Potatoes	5.00%	3,266	7,076,339	5.96%	1.143	2.93%	6.19
Squash	5.00%	3,266	1,596,830	1.34%	1.633	4.18%	0.98
Beans	3.00%	1,959	2,219,887	1.87%	0.784	2.01%	2.83
Tomatoes	5.00%	3,266	5,371,748	4.52%	1.959	5.02%	2.74
Cauliflower	5.00%	3,266	7,809,117	6.58%	1.633	4.18%	4.78
Maize	4.00%	2,612	4,179,840	3.52%	0.784	2.01%	4.78
Others	0.00%	0	0	0.00%	0.000	0.00%	

(continued)

Jordan Rift Valley		Assumed Future Cropping Pattern (2015)					
Crop	2015 Area Share (%)	Area (Dunum)	Gross Mar (NIS)	Mar Share (%)	Water Req. (MCM)	Water Share (%)	Gross Mar./m ³ Water Req.
Fruits							
Oranges	2.50%	1,633	3,135,125	2.64%	1.306	3.35%	2.52
Bananas	2.50%	1,633	1,596,149	1.34%	4.734	12.13%	0.73
Clement	2.00%	1,306	1,646,922	1.39%	1.045	2.68%	1.68
Lemons	3.50%	2,286	6,525,005	5.49%	1.829	4.69%	3.73
Grapes	3.00%	1,959	5,457,630	4.60%	1.824	4.72%	3.67
Olives	4.50%	2,939	2,463,428	2.07%	0.903	2.32%	3.67
Dates	11.00%	7,184	62,811,278	52.95%	11.926	30.55%	5.93
Field Crops	7.00%	4,572	10,972,080	9.24%	2.743	7.03%	
	100.00%	65,310	238,853,948	201.12%	50.754	130.04%	4.71
Comparison with Present Production			201.12%		130.04%		154.67%

Source: JICA Study Team estimate

A comparison is made for the major indicators between the present cropping pattern and the proposed cropping pattern in proportion to the increase in water available for crop production of 11.26 MCM per year. The estimate indicates that the cropping area of greenhouse horticulture and date cultivation will increase from the present 1,795 dunums to 9,798 dunums and 1,115 dunums to 7,184 dunums, respectively. Gross margin and margin per cubic meter of water will increase from NIS 118.8 million to NIS 238.9 million and the gross margin per water unit from NIS 3.04 to NIS 4.71.

On the assumption that such increases in indicators are proportional to the increase in water available for crop production, the following table will be borne out:

Table S-12 Increase in Water vs. Increase in Indicators

Major Indicators	Present Status	Short Term	Medium Term	Long Term
Water for Agriculture (MCM)	39.04	43.36	47.15	50.30
Greenhouses (dunums)	1,795	4,868	7,557	9,798
Date Cultivation (dunums)	1,115	3,445	5,485	7,184
Gross Margin (mil NIS)	118.761	164.872	205.223	238.854
Gross Mar./m ³ Water Req. (NIS)	3.04	3.68	4.24	4.71

Source: JICA Study Team estimate

Increase in gross profit in the respective development terms in relation to the increase in water availability is estimated as summarized in the following table.

Table S-14 Increase in Gross Margin in Each Development Term

Increase of Gross Margin	Short Term	Medium Term	Long Term	Total
Availability of Water (MCM)	4.32	3.79	3.15	11.26
Gross Margin (mil. NIS)	46.111	40.351	33.631	120.093
Gross Margin (mil. US\$)	10.02	8.77	7.31	26.11

Source: JICA Study Team estimate

With an increase in agricultural production, marketing of farm inputs and outputs would expand, and agribusiness and other agro-based industry would flourish at the village and regional levels. The increase in the gross margin from primary products shows that farmers' income would double in 10 years through enhancement of productivity and profitability.

Institutional Framework

The confused legal setup on land ownership continues to create a high level of uncertainty and acts as a serious disincentive for farmers to invest in enhancing the productivity of their land. Moreover, inheritance laws have resulted in a serious problem of land fragmentation, which hinders economies in land management and agricultural production. PNA should therefore give highest priority to finalizing a unified law on land ownership for the West Bank and Gaza. Appropriate legal frameworks are also urgently needed to regulate access to and management of communal and state lands, as well as to establish a modern land-registry system. Further, MoA should work closely with the municipal authorities to introduce appropriate zoning regulation to control the use of high quality agricultural land for non-agricultural purposes.

In the irrigation field, it has become an urgent task to increase the efficiency of water use, to recover the function of currently inoperable irrigation facilities and to realize sound management of facilities in order to attain sustainable irrigation operation. Under such circumstances, the government should formulate a new development strategy based on the following concepts: (i) water previously regarded as a “social good” is now to be regarded as an “economic entity”, (ii) water management, previously undertaken on a “supply driven” basis should become “demand driven”, (iii) water planning and sustainability must be based on the “supply concept” rather than the “user concept”, and (iv) the government must develop policy in terms of “enabling strategies” rather than through a strategy based on “provision”.

Livestock Development

The livestock sector contributes substantially to the regional agriculture. Breeding of cattle, sheep and goats, poultry and work animals, as well as processing for meat and milk production, is widely practiced in the Jericho and Jordan Rift Valley area. In view of the fact that many sheep and goats are grazed in the Jericho area, the programs for livestock development will be formulated paying attention to: (i) production of meat and milk of sheep/goats, (ii) increased production of fodder to feed an increased number of sheep/goats, and (iii) a program to set up a breeding center to support livestock development in the Jericho and Jordan Rift Valley area.

Meat and Milk Production

The Jericho area had an estimated total of 88,500 head of sheep and goats. It is reported that the average number of sheep and goats per owner is 107 head (80 head of sheep and 27 head of goats). This leads to an estimate that the number of households with sheep and goats will be around 830 owners. Based on the statistics and the projected meat and milk production, the production in Jericho and Tubas would amount to US\$52.2 million under the high growth scenario and US\$28.6 under the low growth scenario, as shown in the following table.

Table S-14 Estimated Production Value of Meat and Milk

(Unit: US\$ 1,000)

Year		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimated Growth Rate	1.5%	25,055	25,431	25,812	26,199	26,592	26,991	27,396	27,807	28,224	28,648
	4.0%	25,055	26,057	27,099	28,183	29,311	30,483	31,703	32,971	34,289	35,661
	8.5%	25,055	27,185	29,495	32,002	34,723	37,674	40,876	44,351	48,121	52,211

Source: JICA Study Team estimate

Fodder Production

To feed the increased number of sheep and goats as projected above, a substantial increase in fodder production is needed. It is estimated that an adult sheep or goat with an average body weight (50 kg) will require 3 kg of hay per day or 1.1 tons per year. With a total number of 88,500 head of sheep and

goats in the Jericho area, the annual requirement would be around 97,000 tons per annum. With the estimated fodder consumption per sheep and goat, the annual requirement of fodder is estimated as shown in the following table.

Table S-15 Requirement of Fodder to Breed Sheep and Goats

Year		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Estimated Growth Rate	1.5%	96,900	98,354	99,829	101,326	102,846	104,389	105,955	107,544	109,157	110,794
	4.0%	96,900	100,776	104,807	108,999	113,359	117,894	122,609	127,514	132,614	137,919
	8.5%	96,900	105,137	114,073	123,769	134,290	145,704	158,089	171,527	186,107	201,926

Source: JICA Study Team

It would not be an easy task to produce the required volume of fodder under the current situation of the security zoning in Areas A, B, and C. Efforts should be concentrated on the following measures to cultivate as much fodder as possible, i.e., (i) promotion of water saving fodder cultivation, (ii) strategic adoption of fodder varieties for profitable fodder cultivation, (iii) fodder processing and storage with proper management for dry hay and silage, (iv) utilization of crop residues combined with crop cultivation, (v) proper feeding composition for livestock, and (vi) production of compost and organic fertilizers from dung in order to increase productivity of fodder cultivation.

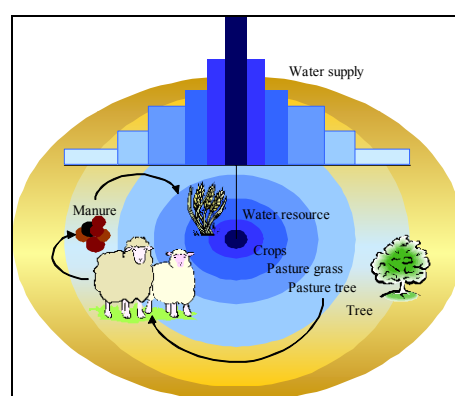


Figure S-32 Water-saving Fodder Cultivation around Water Sources

Genetic Improvement and Breeding Center

In addition to the increase in the number of head of livestock, sheep and goats in particular, the productivity and quality of products are to be improved to attain higher value added through livestock development. In this context, genetic improvement will play a significant role. Breeders are aware of the importance of genetic improvement but it has not yet been fully introduced in the region. In this context, an animal breeding center is proposed to produce pure breeds of sheep and goats to increase their numbers for genetic improvement. The increased number of pure bred sheep and goats will mate with the local breeds for reproductive improvement.

Agribusiness Development

To follow a value chain of crop and livestock production, agribusiness is to be encouraged for the enhancement of value added in the Jericho and Jordan Rift Valley area, as well as for the diversification of regional products and the creation of employment opportunities. It is proposed that the agribusiness development program be composed of three sub-programs as illustrated in the figure.

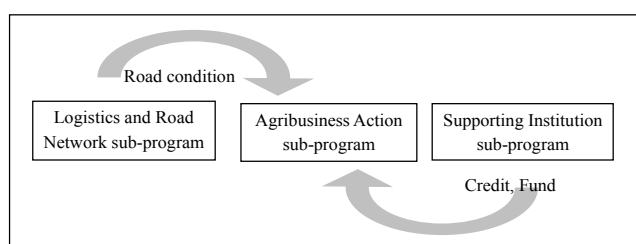


Figure S-33 Composition of Agribusiness Development Programs

Regarding agro-processing, distribution and marketing, a versatile type of spiral model is developed, focusing on the (i) institutional enhancement, (ii) information dissemination and education, (iii) introduction of processing technology, and (iv) marketing and sales promotion. The public sector is responsible for (i) and (ii) while the private sector implements (iii) and (iv). As illustrated in the

figure, the external Loop A indicates the cycle of activities handled by the public sector and Loop B inside shows the cycle of activities by the private sector.

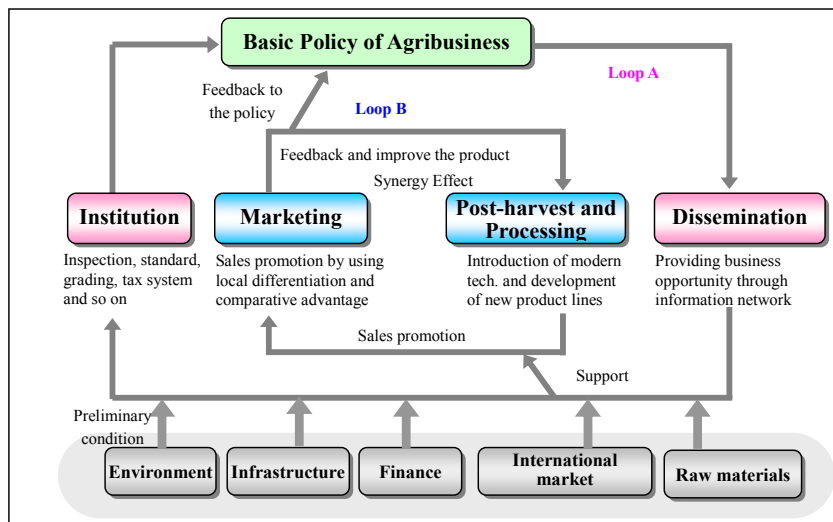


Figure S-34 A Versatile Spiral Model for Agribusiness Promotion

Major actors of the proposed agribusiness promotion program are farmers’ associations, groups and cooperatives in the private sector and the related agencies in the public sector. Promotion of some commodities will be identified. Such commodities would include the following.

Table S-16 Example of Commodities for Agribusiness Promotion

	Process	Potential	Production area	Market
Vegetables	Fresh (packaged)	Fresh vegetables are most profitable if properly packed by grade (size).	Jericho, Al ‘Auja	Palestine and EU
	Dried and/or pickled	Some vegetables are suitable for drying and pickles; therefore, the surplus should be processed rather than dumped.	Jericho, Al ‘Auja	EU and Asia
Olive	Milled	Olive oil could be exported if quality control and packaging methods are improved. By-products such as soap have potential as well.	Tubas	EU, USA, Gulf, Asia
	Pickled	Pickled olives are high value-added products, so the development of this product is expected.	Tubas	EU, USA
Dates	Dried	Dates are not only marketable but require little water, so they are suitable for the Jordan Rift Valley.	Al ‘Auja	Local, EU
Livestock	Slaughtered		Tubas	
	Processed		Tubas, Jericho	

Collective Location of Processing and Logistic Services

In the event that individuals are assisted in setting up agribusiness and other processing industries, they would be apt to set up their factories and other facilities rather independently, making the transportation, logistical and other services rather ineffective. It is also feared that this might invite some negative environmental impact. In this context, some public interventions are desired in such fields as land use zoning for industrial location, preparation of plans for collective location of processing and logistic centers, and promotion of investments jointly with the local enterprises. Such a collective location of industries would also serve in the promotion of industrial clusters as well as in environmental protection.

The logistical centers are necessary to provide functional facilities composed of warehouses, distribution centers and a place for handling export formalities. The warehouse should have storage and deposit functions. The distribution center is to be utilized for sorting and transshipment of goods. The export formalities will have different functions, depending on the political situation. Based on the present security conditions, the export formalities should include a computerized system, X-ray inspection system, and tamper-proof sealing system to ensure security and customs measures work smoothly. In addition, a truck terminal will be needed in the logistics center.

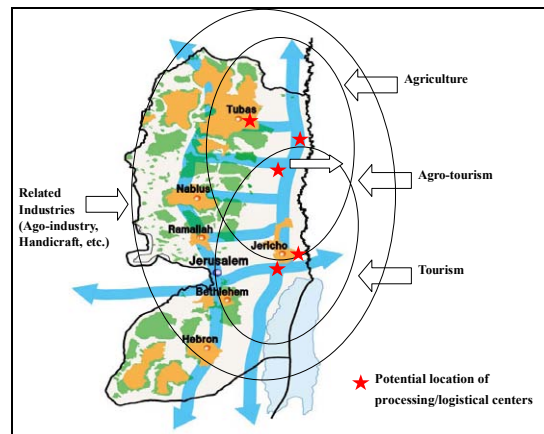


Figure S-35 Potential Collective Location of Processing and Logistical Centers

Improvement in Other Infrastructure to Support Agribusiness

Along with the agribusiness promotion program and collective locations for processing and logistical centers, it is suggested that other studies be executed on the improvement of regional infrastructure to support agribusiness development.

Road and transportation networks have been relatively well developed in the Jericho and Jordan Rift Valley area, but they still need some improvement. Attention is particularly drawn to the improvement in the Haifa-Amman Corridor via Damiya Bridge, Lower Al-Far’as and Tubas (improvement for about 25 km in length). This corridor would play a significant role in promoting agribusiness and processing industries.

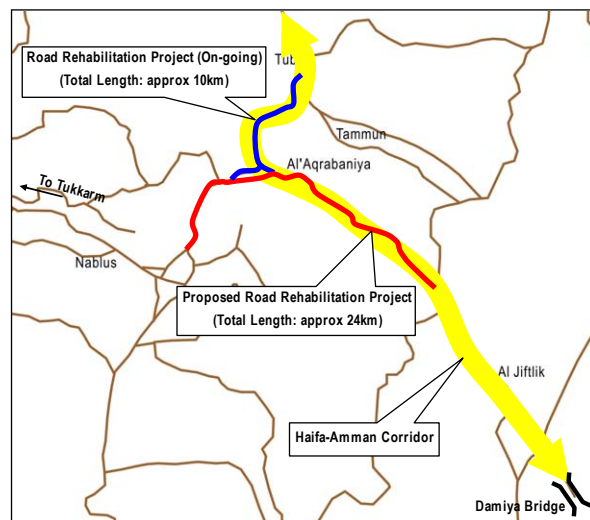


Figure S-36 Road Rehabilitation along Rt. 57

Supply of electric power in the region should also be stabilized for promoting agribusiness and other industries, as well as for domestic use in urban and rural areas. Improvement in the power supply would include: (i) expansion of transmission lines to the northern West Bank, (ii) a distribution network in the northern West Bank, (iii) rehabilitation of the distribution system and rural electrification in the West Bank, and (iv) institutional support to the Northern Electricity Distribution Company (NEDCo).

9 TOURISM AND URBAN ENVIRONMENT PROGRAM

Program Formulation

This program consists of three components, i.e., tourism development, urban planning, and improvement of the urban environment. It will primarily focus on the Greater Jericho area. Tourism development is promoted to make tourism a leading industry in Jericho, and urban planning in the Greater Jericho area and Jericho city aims at harmonized urban development by establishing a development control and management system. Development of the urban environment is proposed for both tourism development and improvement of the urban amenities and living conditions.

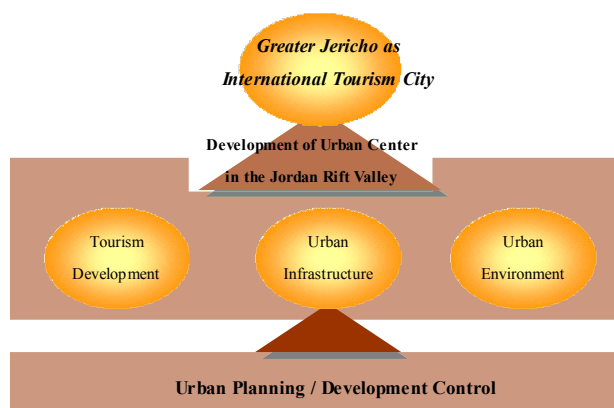


Figure S-37 Concept of Tourism and Urban Planning with Urban Environment Improvement

Tourism Development

Tourism resources in the Jericho and Jordan Rift Valley area have been assessed in the following manner.

Table S-17 Assessment of Tourism Resources in Greater Jericho

No.		Category	Accessi- bility	Presenta- tion	Attractive- ness	Facility	Potential	Global
1	Tell es-Sultan	Old Jericho	A	E	C	B	A	C
2	Hisham's Palace	Cultural	A	B	B	B	A	B
3	Ancient Synagogue	Religious	B	D	D	C	B	C
4	King Herod's Palace	Cultural	C	C	B	E	A	B
5	Tell es-Sammarat	Cultural	C	E	B	E	C	C
6	Mt. Temptation	Religious	A	B	B	A	B	B
7	St. George Monastery	Religious	D	B	A	B	B	B
8	Nabi Musa	Religious	B	C	B	D	B	B
9	Qumran	Cultural	A	B	B	A	B	B
10	Maqam Al-Re'j	Religious	C	B	C	B	C	C
11	Dier Hijle	Religious	A	A	B	B	C	B
12	St Johns Convent	Religious	B	A	B	C	C	B
13	Baptismal Site	Religious	B	B	C	B	B	B
14	Religious Trail	Religious	C	C	B	D	B	C
15	Dead Sea	Natural	B	B	B	D	A	B
16	Rift Valley Landscape	Natural	B	B	A	E	C	C
17	Geological Wonder	Natural	B	B	A	E	B	C
18	Mild Climate	Natural	-	-	A	B	A	A

A: Excellent, B: Good, C: Medium, D: Low, E: Poor

Source: MoTA, JICA Study Team (Tourism Working Group)

For tourism development, seven strategies are proposed:

- (i) Research and improvement of the exhibition of the 10,000 year historical dynamics of Jericho City

The longest history of human activities in the world at 10,000 years is the most valuable resource of Jericho city. In order to properly present the archaeological sites, it is essential to establish attractive exhibition of the archaeological objects, particularly at Tell es-Sultan.



Tell es-Sultan

- (ii) Development of New Tourism Products

New tourism products should be developed in the Greater Jericho area. Such tourism products should be based on the regional history and culture. The resort tourism efforts should be oriented to making Jericho a pleasant and enjoyable town with tourism related businesses. Another potential is to develop a Dead Sea Coastal Park/Resort in cooperation with Israel and Jordan.

- (iii) Beautification and Improvement of the Urban Infrastructures

Jericho city has insufficient infrastructure and urban amenities for visitors as a tourism base city. The old city center should be re-developed as a new city center with better urban amenities for the residents and visitors.

- (iv) Improvement of the Urban Environment

Improvement of the urban environment is needed to upgrade urban amenities in Jericho city. Special attention should be paid to the cleanness of the main street by introducing a better solid waste management system.

- (v) Integration and Cooperation of Tourism Related Organizations

MoTA's Jericho branch should be reinforced together with a new computerized information network system for promotion of Jericho tourism in the world markets. A joint committee of public and private institutions could also facilitate the promotion activities.

- (vi) Promotion of Participation by Local Residents

Participation of local communities in the tourism industry should be promoted, not only for economic reasons, but for sustainable tourism development.

- (vii) Promotion of Regional Tourism and Confidence Building

Promotion of regional tourism is of vital significance for Jericho tourism development. Joint tourism promotion should be enhanced in cooperation with the neighboring countries, particularly Israel and Jordan. This would contribute to regional peace making and peace keeping.

Pursuant to the tourism development strategies, 19 projects are proposed for implementation, as listed in the following table. It is noted that a video film for promotion of Jericho tourism has been prepared in accordance with Project T19 under the sponsorship and supervision of the JICA Study Team and distributed to tourism associations and agencies in the region.

Table S-18 Proposed Tourism Development Projects

Strategy	Project	Responsible Agency	Priority
(i)	T1 Improvement of Ancient Jericho (Tell es-Sultan)	MoTA	A
	T2 Improvement of Hisham’s Palace	MoTA	A
	T3 Improvement of King Herod’s Winter Palace	MoTA	C
(ii)	T4 Establishment of a Jericho Historical Information Center	City / MoTA	B
	T5 Cultural and Historical Footpath Network Development	City / MoTA	B
	T6 Mosaic Art Promotion and Dissemination Project	MoTA / City	A
	T7 Development of Agro-Tourism Zones	MoTA / City	B
	T8 Resort Development in Jericho and the Dead Sea Coastal Area	MoNE / MoTA	B / C
(iii)	T9 Re-development of Jericho City Center	City / MoPW	C
	T10 Widening sidewalks and tree planting along the streets	City / MoPW	B
(iv)	T11 Development of a New Administration Zone for Jericho	City / MoPW	C
	T12 Development of a Jericho International Communication Zone	MoLG / City	C
	T13 Development of a New Jericho Vegetable Market	City / MoA	B
(v)	T14 Formulation of a Tourism Promotion Committee in Jericho	Tourism Committee	A
	T15 Execution of tourism promotion activities	Tourism Committee	A
	T16 Strengthening MoTA Jericho Branch	MoTA	B
(vi)	T17 Promotion of local products and souvenir industry	Tourism Committee	A
	T18 Establishment of training courses for tourist guides for Jericho	Tourism Committee	B
(vii)	T19 Development of tourism promotion videos	City / MoA	A

Source: JICA Study Team

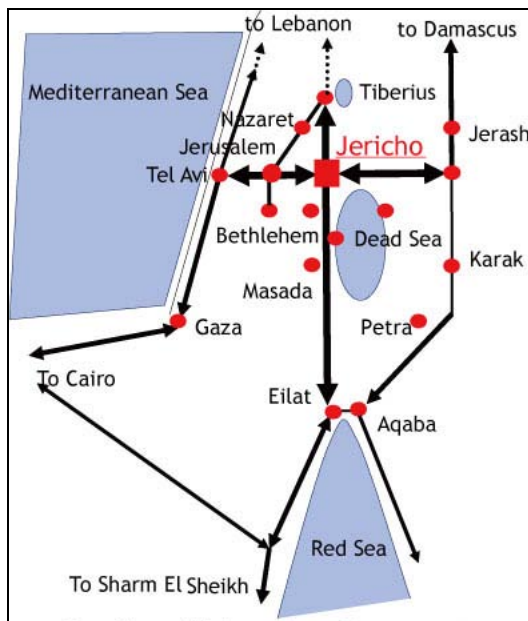


Figure S-38 Regional Tourism Plan

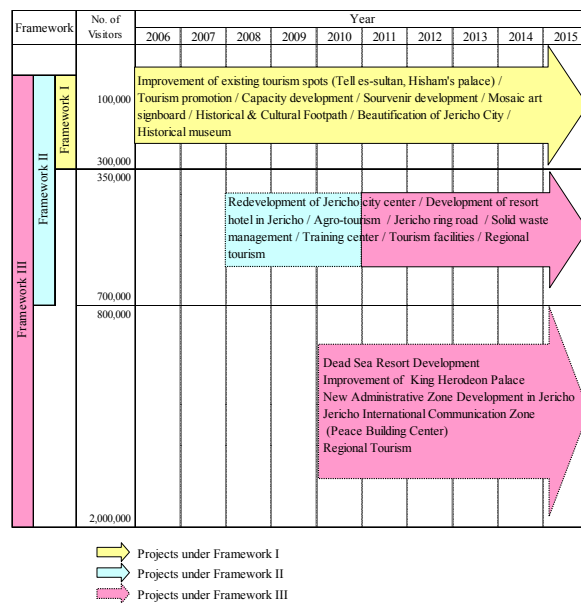


Figure S-39 Tourism Development Programs

Tourism Facilities in Jericho

Some tourism development plans, although preliminary, have been formulated along with urban planning in Jericho city. For instance, improvement of tourism related facilities along the circular tourism routes are proposed as illustrated in the following.

The circular tourism routes should be developed with shaded pedestrian sidewalks, pedestrian malls and street facilities (e.g. information signs, benches, lights, and dustbins), as well as taxi and shuttle bus services along the routes.

It is further planned that the Jericho city center will turn become a symbolic center of tourism having a historical museum, event plaza, open café, green spaces and shuttle bus pool, as illustrated in the following figures.

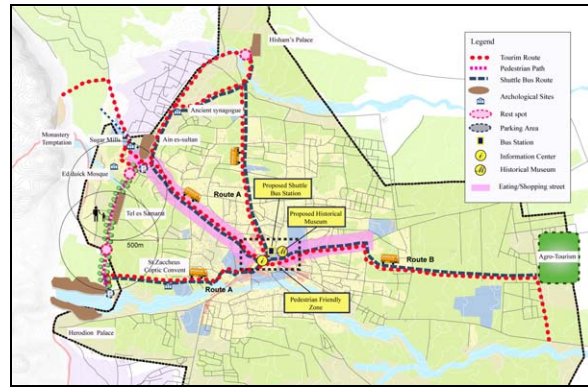


Figure S-40 Tourism Routes and Related Facilities

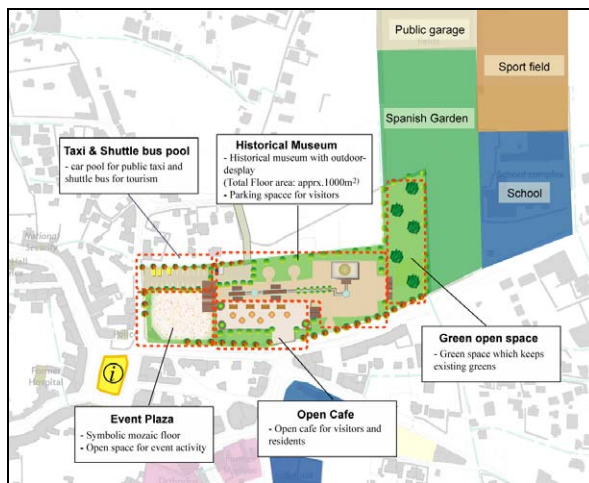


Figure S-41 Proposed Tourism Center in Jericho



Figure S-42 Image of Event Plaza

Development Concept of Greater Jericho Area

A Working Group was formed by the Mayor of Jericho city and representatives from Jericho municipality, related ministries, Birzeit University and local consultants in order to discuss and formulate urban development plans for the Greater Jericho area and Jericho city. A preliminary development concept for the Greater Jericho area has been discussed, exploring future development directions of the regional center. The Greater Jericho area is estimated to have a population of about 45,000 in 2015 and 70,000 in 2025. Based on the analysis of development potential and constraints, as well as on the national standards for the built-up area (230 m²/person), a development concept for the Greater Jericho area has been formulated as illustrated in the figure.

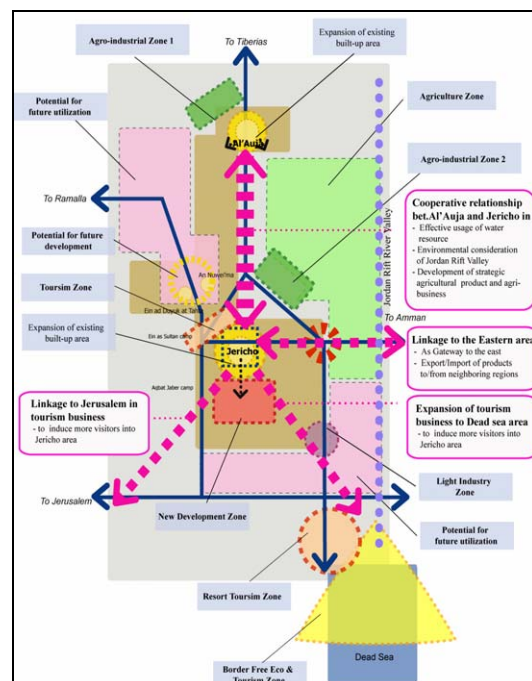


Figure S-43 Development Concept for Greater Jericho Area

Urban Planning for Jericho City

The land use plan for Jericho city has been developed for a population of 40,000 in 2025. The city center will be re-developed to the level of an international tourism city. It is also planned that government administration functions will be relocated away from the city center. Development of a ring road would be important to create the new urban spatial structures. The new residential and administrative zones will be developed to the south of the city.

To the west of Jericho city, along the foot of the mountains, a tourism zone will be designated. The most valuable archaeological and cultural assets exist in this zone, such as Hisham’s palace, Tell es-Sultan, Ain-Sultan, the Mount of Temptation, Tell es-Samatat, and King Herod’s winter palace. The eastern side of the city will be an agricultural and eco-tourism zone to maintain the greenery and the natural environment.

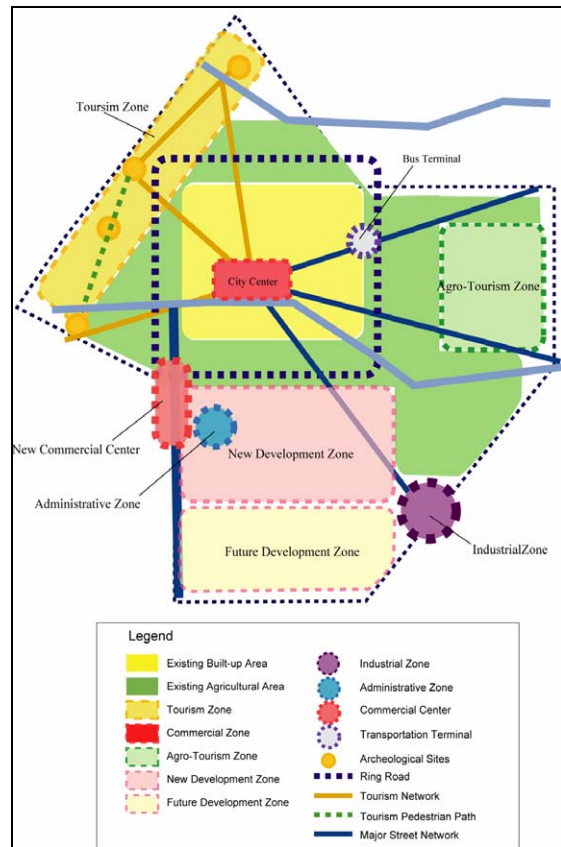


Figure S-44 Development Concept for Jericho City

Land Use Zoning for Jericho City

The current land use in Jericho city (33.7 km²) has been mapped out by means of GIS with a satellite image of 2004. It has been revealed that the current built-up area is 5.4 km² (or 20% of the municipal area), while the agricultural lands occupy 13.4 km² (or 40%). The unused land is nearly 11.8 km² (or 35%).

Through several discussions at the Working Group, future land use zoning for Jericho city has been worked out as shown in the figure on the following page.

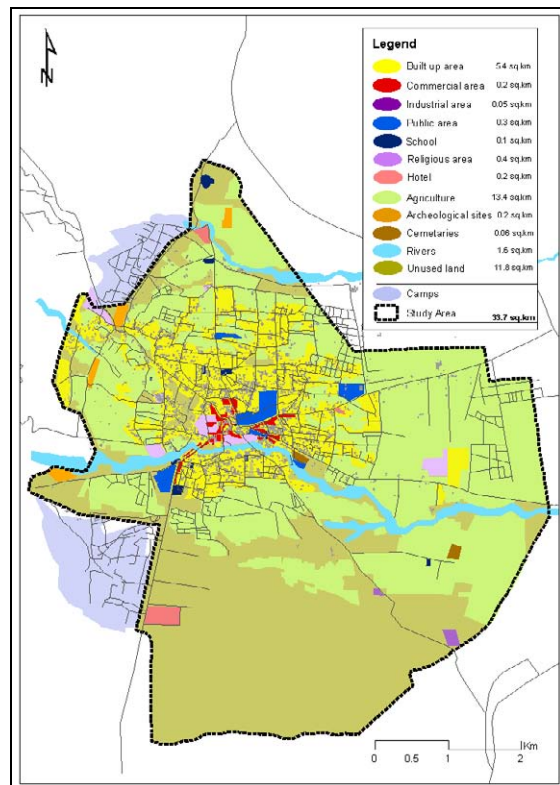


Figure S-45 Current Land Use Map

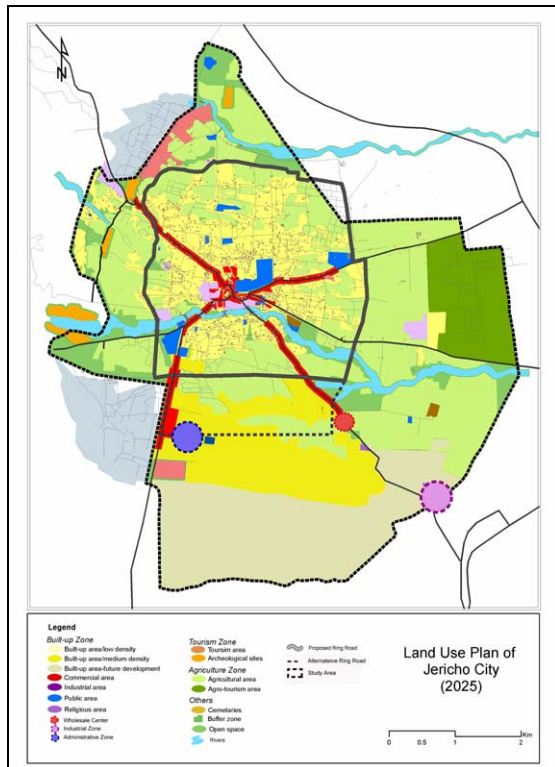


Figure S-46 Future Land Use Plan

Built-up areas will be zoned into low density, medium density and future development zones, as well as religious, commercial, industrial and administrative zones. The built-up area would be expanded by 50% to around 17 km² (or nearly 50% of the municipal area) in 2025. The agricultural land use would remain at the current level in order to preserve the historical background and greenery in Jericho.

Future land use zoning as proposed herein is still general and subject to approval by the local planning committee and higher planning council. An urban plan with a detailed land use plan and land management plan will have to be prepared for final approval by the planning committees of Jericho municipality and the Ministry of Local Government. Approval via public comments and the high planning council of the government will also be needed.

Stage-wise implementation is proposed for urban development in Jericho city, as shown in the following diagram.

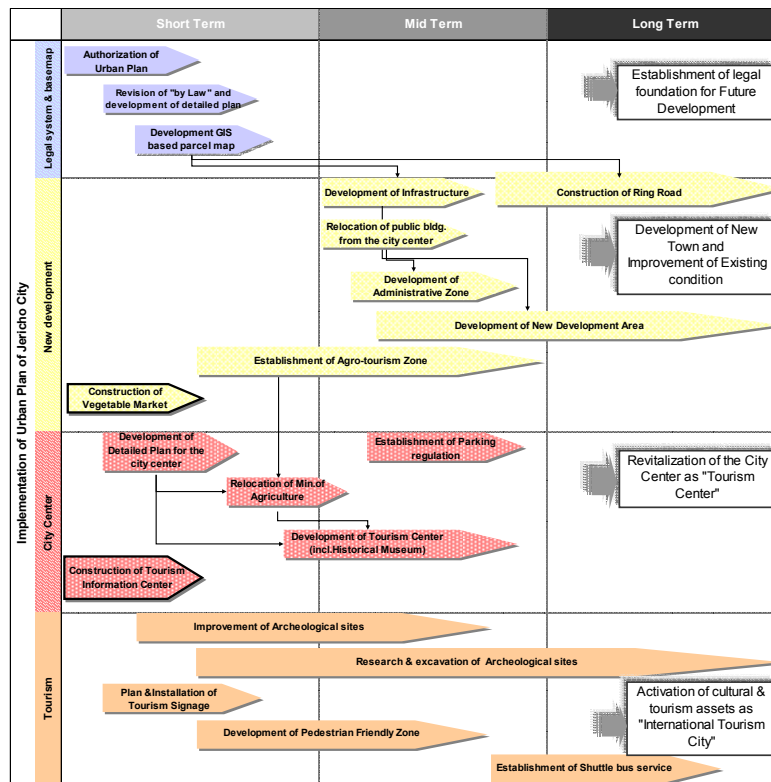


Figure S-47 Stage-wise Implementation of Jericho Urban Plan

Improvement in the Urban Environment

Transportation

Several programs are proposed for transportation improvement in Jericho city to ensure a better environment for the residents and tourists. They will include:

(i) Ring Road in Jericho

In view of the urbanized area, terrain and location of tourism spots, a ring road with a total length of about 12 km including two bridges across the Wadi el-Qilt is proposed to run through major tourism spots and the Bridge Bus Terminal.

(ii) Traffic Management Program

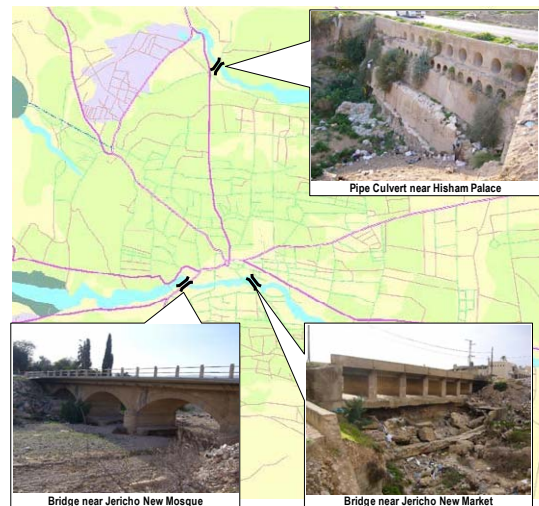
The traffic management measures to be applied to Jericho city are proposed for improvement of side walks, road marking, street furniture, parking control and other traffic regulations.

(iii) Wadi Crossings in Jericho

Two bridges across the Wadi el-Qilt and one pipe culvert across the Wadi Nuwei'ma have been critically damaged by erosion and scouring by floods. The bridges require improvement or renovation to eliminate flood risks.

(iv) Bus Transportation Improvement

Buses should be operated for inter-city routes establishing the proper role of a bus service, while shared taxis serve feeder routes. The bus terminals in Jericho city should enable bus transit to respond to the changing requirements.



Source: JICA Study Team

Figure S-48 Bridge Location in Jericho City

Urban Solid Waste Management

Domestic waste, agricultural waste, agro-industrial waste, and medical hazardous waste are disposed of in open dumping sites, one in Jericho and two in Tubas district. There is also an Israeli landfill site in the study area, but it is not used by Palestinians due to high charges for disposal. Solid waste is generally collected in plastic bags or metal containers using vehicles of the municipality or JCspd. Some vehicles and metal containers are broken, and they should be repaired or replaced.

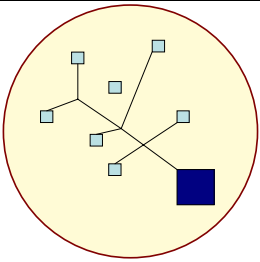
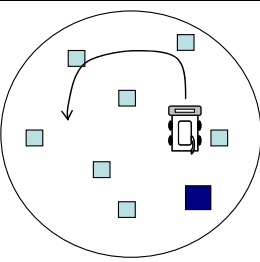
A preliminary study has been made on the alternative solid waste management plans contemplated by Jericho municipality, JCspd and the related authorities. Jericho municipality is planning to construct a new landfill site (30ha) in Area C located to the east of Jericho. Alternatively, the Israeli landfill site can accept disposal at 1,500 NIS/day (30t).

Two alternative solutions have been preliminarily evaluated. While the collection fee at the Israeli landfill site is higher than the current charges, construction of a new landfill site would result in the annual cost per household being much higher than the present average annual cost (US\$33) even if the construction cost is covered by grant aid. A decision on the selection of the landfill site is to be made, not only from the economic viewpoint, but also considering the political and environmental impacts on the region.

Wastewater Treatment

Wastewater to be generated in Jericho and Tubas is estimated to be about 3,600 m³/day and 4,800 m³/day, respectively. All generated wastewater is currently discharged into the environment without treatment. Untreated wastewater is one of the most serious problems of surface and groundwater pollution. Therefore, establishment of wastewater treatment systems should be implemented for the protection of the urban and regional environment.

The current cost of wastewater is estimated to be NIS10/m³, or around US\$19 per household per year. According to the preliminary evaluation, alternative Plan B with vacuum cars and a treatment plant would be more economical. Affordability of additional charges for households should be assessed in addition to the detailed plan and a more accurate cost estimate completed.

		
Plan	<u>Plan A: Sewer Line System</u> Sewer Line + Wastewater Treatment Plant (WWTP)	<u>Plan B: Vacuum Car System</u> Vacuum Car + Wastewater Treatment Plant (WWTP)
Population in 2015 (Assumed number of households)	Jericho: 30,000 (7,500) Tubas: 40,000 (10,000)	
Generation of waste water	Jericho: 3,600 m ³ /day Tubas: 4,800 m ³ /day (All generated waste water)	Jericho: 180 m ³ /day Tubas: 240 m ³ /day (Waste water from toilets)

Source: JICA Study Team

Figure S-49 Alternative Systems for Waste Water Collection and Treatment

Implementation of Urban Environmental Programs

An implementation plan for the urban environmental programs is proposed as follows.

Table S-19 Implementation of Urban Environmental Program

Strategy	Project	Responsible Agency	Priority
U1	Rehabilitation of 3 bridges in Jericho city	Jericho city / MoPW	B
U2	Improvement of tourism access road	Jericho/ MoPW / MoTA	B
U3	Ring Road Development for Jericho city	Jericho/ MoPW	B
U4	Strengthen Traffic Management	MoT / Jericho	B
U5	Improvement of Bus Transportation Service	MoT / Jericho	C
U6	Improvement of solid waste collection network	MoLG /Jericho/EQA	A
U7	Improvement of existing landfill site	MoLG/Jericho / EQA	B
U8	Construction of waste water treatment plant	PWA / Jericho/ EQA	A
U9	Construction of sewerage collection network system	PWA / MoPW / Jericho	B
U10	Development of water recycling system for irrigation water	PWA / MoA / Jericho	C

Source: JICA Study Team

10 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 1) The Regional Development Master Plan for the Jericho and Jordan Rift Valley area, targeting the year 2015, has been formulated highlighting the regional uniqueness as well as regional strengths, weaknesses, opportunities and threats. A number of development projects have been programmed and proposed to realize the three objectives, i.e., (i) enhancement of the people's living conditions, (ii) promotion of regional economic activities, and (iii) preservation of the cultural and environmental values of the region.
- 2) Despite the hardships and instability in the West Bank and Gaza at the moment, the people and society in the Jericho and Jordan Rift Valley area are capable of implementing the development projects unless security conditions are aggravated. The proposed projects are to be implemented through collaboration and cooperation of all stakeholders in the region, inclusive of private, public and academic circles, as well as NGOs.
- 3) A participatory planning approach has been applied to this Master Plan study, and it has proved to be effective, particularly for consensus making. The participatory approach is also effective for project implementation, as it has been proven through the execution of three quick impact projects implemented under this study. The people are more motivated and responsible through their participation in development activities.
- 4) The participatory approach and collaborative efforts are also effective for promotion and consolidation of democracy at the community level as well as at the regional level. Such a democratic approach will also lead to confidence building that has been set as a supreme objective of Jericho Regional Development.
- 5) In the event that the projects and programs are fully implemented as proposed in this Master Plan, the macroeconomic target under the high growth scenario would become attainable. Even if some restrictions remain in the region, the moderate growth target would be attained as long as internal development efforts are well managed and external supports are extended for the implementation of the proposed projects and programs.
- 6) Proposed development programs would have a significant impact on employment and other social conditions. For instance, the proposed farming practices with water saving agriculture would require additional employment of about 3,000 persons in cultivation. The employment in the tourism sector, on the other hand, is estimated to be 6,700 persons under the moderate growth scenario in 2015. Employment opportunities would also be increased in other activities related to agriculture and tourism, as well as in the service sector.
- 7) Resources in the region are relatively limited. The limited land and water resources should be utilized to their utmost extent by applying water saving agriculture, reduction of water losses, water harvesting and reuse, and rehabilitation of the existing facilities. Capacity building is needed at every level. Social capital should also be enhanced through mutual trust and collaborative works.
- 8) Under the Master Plan, three programs are proposed in an integrated form, i.e., a (i) social and community development program, (ii) agriculture and agribusiness development program, and (iii) tourism and urban environment program. The projects are not only integrated into three programs

because of their inter-relationship and common objectives, but are also linked with other projects in different programs. Such linkages are to be strengthened in order to make the region a development cluster.

9) The proposed Master Plan has confirmed the roles and significance of cross-boundary cooperation, particularly between Palestine, Jordan and Israel. It is not an exaggeration to say that Jericho Regional Development is largely dependent on the extent of confidence building and resultant cooperation among the people in this region.

Recommendations

1) Despite various hardships prevailing in the region at the moment, the people and public institutions are expected to firmly commit themselves to act for their community and region. To this end, it is recommended that collaborative work be promoted at the community and village levels, as well as at the regional level. The private sector is also encouraged to form associations and secure cooperation of the counterpart associations in the neighboring countries for their business promotion.

2) Efforts of the private and public sectors should be well integrated and coordinated for economic and social development. In this connection, it is recommended that a regional development institute be set up in the form of a Regional Council based on the expansion of the current JCspd. Likewise, activities of NGOs should be networked so that their activities are more effectively integrated into the regional development efforts.

3) There is, in fact, a shortage of data and information that are required for this development study. It is recommended that surveys be conducted to obtain basic data and information concerning the social and economic settings of the people and entities in the region.

4) All available data and information should be open and accessible to the public. The information collected in the course of this study will therefore be kept open. In this connection, it is recommended that a resource center be set up where all development data and information are compiled as databases and the interested parties can easily access this information at the resource center. It is also recommended that the GIS database, currently managed by respective ministries and institutions, be integrated for further study and planning.

5) Due to the unexpectedly changing situation, a Regional Tourism Promotion Workshop by representatives from Palestine, Jordan and Israel has not been realized in the course of this study. It is recommended that such workshops be held at an appropriate time, not only for tourism promotion but also for promotion of cooperation in the environmental and other sectors of mutual interest. It will no doubt promote confidence building in the region.

6) It is expected that this Master Plan for the Jericho and Jordan Rift Valley area will serve as a model of integrated regional development planning in other regions. It is therefore recommended that this Master Plan be referred to in formulating the regional plans in the West Bank and Gaza in the near future.

7) This Master Plan has been formulated on the basis of the limited data available, as well as under the current unsteady conditions in the West Bank and Gaza. It is, therefore, recommended that the proposed Master Plan be reviewed and updated after about three years or in/around 2010, reflecting the updated situation in the Jericho and Jordan Rift Valley area as well as in the West Bank and Gaza.

ANNEX: List of Study Members**Steering Committee** (Names in the tables are listed in alphabetical order)

		Name of the attendance at the 1st and 2nd Committees
1	Chairperson, Ministry of Local Government	Abdel-Kareem Seder Rafiq Aljaabari (Dr.)
2	Member; Ministry of Local Government	Azam Hjouj (Dr.) Abu Ayyash Ali Mohammed Njourn Kamel Hemid Suleiman A. Abo Mefreh
3	Member; Ministry of Planning	Amneh Alatrash Ibrahim Abdelrahim Khalil Nijem
4	Member; Ministry of National Economy	Jawad Naji (Dr.) Saeb Bamyia (Dr.)
5	Member; Ministry of Agriculture	Adel M. Briegheath Ala Joma (Dr.)
6	Member; Ministry of Tourism and Antiquities	Maruwan Toubassi
7	Member; Palestine Water Authority	Abbas Kalbouneh Nael Ali Ahmad
8	Member; Environment Quality Authority	Mohammoud Abu-Shanab
9	Member; Jericho Municipality	Hassan Saleh
10	Member; Jericho Governorate	Emil Ghnem Jamal Al Rjaub Sami Musallam (Dr.)
11	Member; Tubas District	Ghassan Daraghmeh
12	Member; Palestinian Federation of Industries	Jehad Afyani Rali Salanat

Technical Committee (Names in the tables are listed in alphabetical order)

	Organization	Name
1	Chairperson, Ministry of Local Government	Abdel-Kareem Seder
2	Coordinator, Ministry of Local Government	Fawaz Rabia
3	Leader of Spatial Planning/Infrastructure WG Ministry of Planning	Khalil Nijem
4	Leader of Social Service WG Ministry of Local Government	Azam Hjouj (Dr.)
5	Leader of Agriculture/Water WG Ministry of Agriculture	Walid Hijazi
6	Leader of Tourism WG Ministry of Tourism and Antiquities	Taha Hamdan (Dr.)
7	Leader of Urban Planning, Jericho Municipality	Basel A. Hijazi

Working Group (Names in the tables are listed in alphabetical order)**1. Spatial Planning Working Group**

	Organization	Name
1	Ministry of Planning	Khalil Nijem (Leader of the WG) Amneh Alatrash Fadwa Azem Zahra Zawaus Mahmoud Ataya Nancy Jaber Safinaz Bder
2	Ministry of Local Government	Nader A. Halim
3	Ministry of National Economy	Faten Sharaf
4	Ministry of Agriculture	Yacoub Zaid
5	Ministry of Tourism and Antiquities	Ahmed Rjoob
6	Ministry of Transportation	Husni Asous Mohammed Ammous
7	Palestinian Water Authority	Deeb Abdelghafor Hani Qasem Nael Ali Ahmed
8	Environment Quality Authority	Mohammoud Abu Shanab
9	Jericho Municipality	Dima Qasem
10	Tubas Municipality	Husam Abu Alian
11	Jiftlik Municipality	Mohamed Jahaleen
12	Palestinian Trade Center (PALTRADE)	Osama Abu Ali
13	Palestinian Industrial Estates and Free Zones Agency (PIEFZA)	Abdel Rahman Shtayeh

2. Social Services Working Group

	Organization	Name
1	Ministry of Local Government	Azam Hjouj (Dr.) (Leader of the WG) Abeer Yunis Kan'an Ali Abu Ayyash Nader Halim
2	Jericho Municipality	Ghazi Naji Wiam Erikat
3	Tubas District	Husam Abu Elayyan
4	Jericho Governorate	Jamal Rajoub
5	'Aqqaba Municipality	Fayez Ghannam
6	Tammun Municipality	Mohammad Bsharat
7	Wadi al Far'a Village Council	Allan Jamal
8	Al Nuwe'meh Village Council	Khalil Assowth
9	Al 'Auja Village Council	Saleh An-Nojoun Sulaiman Romanin
10	Tayasir Village Council	Akram Dabak

3. Agriculture and Water Working Group

	Organization	Name
1	Ministry of Agriculture	Walid Hijazi (Leader of the WG) Ahmad Shwekeh (Dr.) Amin Abu Alsoud Fatenah Wathaefy Ibrahim Qteeshat Ibrahim Alqouqa Sadek Abu Laban (Dr.) Saed Al Laham Wajdi H. A. Bshrat Yacoub Zaid
2	National Agriculture Research Center (NARC)	Abdullah Al Omary Mohammad Abu Eid (Dr.)
3	Palestinian Water Authority	Muhannad Alhaj Hussein Nael Ali Ahmad

4. Tourism Working Group

	Organization	Name
1	Ministry of Tourism and Antiquities	Taha Hamdan (Dr.) (Leader of the WG) Mohamed Fawzi Mohamed Jaradat Ibrahim Hafi Wed Hamamreh Zahair Saaden
2	Ministry of Culture	Musa Abu-Ghavbieh
3	United Nations Educational, Scientific and Cultural Organization (UNESCO)	Giovanni Fontana Chiara De Cesali Leif-Erik Hannikainen Nura Khalili
4	Palestine Wild Life Society	Imad Atrash
5	United Nations Development Programme (UNDP)	Hani Dajani
6	Jericho Municipality	Adnan Hammad Randa Bemieh
7	Jericho Governorate	Jamal Rjoub Majed Fityoni
8	Jericho Resort Village	Riad Hamad
9	Hotel Inter-Continental Jericho	Munzer Izhiman
10	Jericho Cable Car	Kamel Sinokrot

5. Urban Planning Working Group

	Organization	Name
1	Jericho Municipality	Basel Hijazi, Dept. of Planning Tamara Arikat, Dept. of Planning Dima Qasem, Dept. of Planning Ahmad Al Faris, Dept. of Agriculture Nael Ali Ahmad, Dept. of Sanitary Planning
2	Jericho Governorate	Jamal El Rujob
3	Ministry of Local Government	Mohamad Nioum
4	Ministry of Public Works	Ihsan Sabobeh Numan .M.Jadallah
6	Ministry of Tourism and Antiquities	Wael Hamamreh
7	Environment Quality Authority	Mahmod Abu Shanab
8	United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)	Abed El Karem Shalloudi
9	Birzeit University	Dr. Jamar, Professor, Dept. of Architecture
10	Arabtech Jardaneh	Hasan Abu Shalbak, Team Manager Ahmad Uwaidat (Dr.), Socioeconomic Expert Husni Salah, GIS Expert Samiha Abu Miazar, Researcher

Japan International Cooperation Agency (JICA)

	Position	Name
JICA Palestine Office		
1	Resident Representative	Takeshi Naruse
2	Deputy Resident Representative	Kazuhiko Sakamoto
3	Deputy Resident Representative	Akihiro Iwasaki
4	Project Formulation Officer	Hiroki Miyoshi
5	Project Formulation Officer	Tetsuya Mizutani
6	Coordinator (JICA Jericho Branch)	Abdulnasser Makky
7	Officer (JICA Ramallah Branch)	Dima Hammoudeh
JICA Jordan Office		
8	Resident Representative	Takeaki Sato
9	Assistant Resident Representative	Chie Miyahara
10	Senior Advisor	Hisao Ushiki
11	Senior Advisor	Mitsuo Yoshida

JICA Study Team

	Position	Name
1	Team Leader / Regional Development	Hajime Koizumi
2	Deputy Team Leader / Water Resource Management	Ken Nishino
3	Deputy Team Leader / Agricultural Development	Kenjiro Yatabe
4	Tourism Development / Tourism Resource Evaluation	Kanji Hoshino
5	Regional Industrial Promotion / Development Finance	Yutaka Hamabe (LL.D.)
6	Agricultural Development (Agricultural Economics)	Yoshihiko Ogata
7	Agricultural Processing 1 / Marketing	Mika Matsumura
8	Agricultural Processing 2 (Livestock)	Iwami Orita
9	Environmental Planning / Environmental Consideration	Tetsuo Kuyama
10	Infrastructure Planning	Jun Horimoto
11	Transportation Planning	Koichi Arakawa
12	Administrative Reform / Social and Economic Development	Atsushi Fujino
13	Donor Coordination 1 / Public Service Promotion	Kazuko Yamada
14	Urban Planning / GIS	Sachiyo Takata
15	Donor Coordination 2 / Coordinator	Rika Idei