Chapter 6

Program 5 of Verification Study

Community Resource Mapping

CHAPTER 6 COMMUNITY RESOURCE MAPPING

6.1 Administrative and Demographic Conditions of Dugda Bora Wareda

Peasant Associations (PAs) are the lowest administrative societies to exert community development in association with the government services. The PA representatives are appointed by the Wareda (District) Administrator with prior consent of relevant rural communities in PAs. Dugda Bora Wareda consists of 54 PAs. Each PA comprises some 500 households on an average (804 at maximum and 154 at minimum). The demographic conditions of the PAs under Dugda Bora Wareda are summarized below.

Admin.	Area		Population (no.)		Density	Household	Family
Unit	(km ²)	Male	Female	Total	(person/ km ²)	(no.)	(person/ HH)
54 PAs	1,468.0	64,523	62,051	126,574	86.2	27,013	4.7
PA (average)	27.2	1,195	1,149	2,344	86.2	500	4.7
PA (max)	38.5	1,879	1,796	3,675	167.9	804	5.6
PA (min)	17.3	387	338	725	27.8	154	3.8

Demographic Conditions of Dugda Bora Wareda (2000)

Note: estimated on the basis of Population Census 1994

6.2 Rapid Rural Appraisal (RRA)

6.2.1 Objectives

Apart from the demographic data clarified through the 1994 census, limited information is available for rural communities below the PA level. There are several types of traditional communities under PAs. These communities play important roles in channels of communication among peasants and decision making in rural activities. They also function in settlement of disputes arising among individuals and between communities.

The Study focused on rural communities as target groups in plan formulation and implementation of rural development. The preliminary assessment in the Phase-I study in 2000 was carried out to grasp current positions of rural communities in cooperation with the OADB Wareda office by deploying 27 Development Agents (DA), who are responsible for front-line agricultural extension. DAs verified that there are 10 communities in each PA on an average and each community consists of 40 HH on average. This means that there are some 550 communities within Dugda Bora Wareda.

6.2.2 RRA at Kooffe Bare Community of Bekele Girisa PA

Bekele Girisa PA is located immediately adjacent the Meki town and has experienced several agricultural and rural development projects. The large-scale Meki-Ziway irrigation Project is located within the PA. Bekele Girisa PA consists of 15 communities with 715 HH as presented below.

No.	Name of Community	No. of Leaders	No. of Households
1	Baher Dare	3	39
2	Kooffe Bare	1	30
3	Ginnichi	1	30
4	Irresso, Danbal	2	52
5	Balcha Wago	1	29
6	Karaa Ar Ginni	3	61
7	Jereggoo	3	57
8	Midekso Duga	5	150
9	Villege Kormoa	1	8
10	Villege Oddaa Badhasoo	1	18
11	Villege Fattenso Hulluka	1	26
12	Girma Gelasha	2	30
13	Hayillu Vougaa	3	60
14	Waaue Waldee	3	50
15	Goljaa Yae	4	75
	Bekele Girisa Total		715

Comunities of Bekele Girisa PA

It was expected that the Study would be able to obtain various information about rural communities in conjunction with past long experiences of several development activities. The JICA Study Teams requested in advance the DA of Bekele Girisa PA through the OADB Wareda Office to select the typical community in the PA in order to obtain the relevant information about rural communities. In response to the request, one of typical rural communities, namely Kooffe Bare, was selected and the key informants got together in a half-day meeting. The Rapid Rural Appraisal (RRA) was carried out with facilitation of Subject Matter Specialist (SMS) of OADB. The attendants include the DA of Bekele Girisa PA, the community leader, elders and some 10 villagers. The results of the RRA are summarized below.

6.2.3 Village Resource Mapping

The village resource mapping and transect walk were carried out by all the attendants in order to know the environment and resources of Kooffe Bare. The village map in and around Kooffe Bare was drawn as presented below.



Village Map of Koofe Bare

Kooffe Bare is located about 1.5 km from the Meki-Ziway trunk road. It is formed by 30 HH, which is an average community of Bekele Girisa. The community is further divided into five (5) groups. Five (5) groups are united under leadership of a community leader of Kooffe Bare. Each group consists of six (6) HH with a blood relation. This kind of family-based group is the minimum body sharing information and make important decisions.

Houses of each group are closely located each other within short distance (20 to 30 m) and surrounded by farmlands and grazing land. Further, each of five (5) groups of Kooffe Bare is connected by foot paths and easily assessed between the groups.

6.2.4 Stakeholder Analysis

There are various stakeholders in and around the rural communities. To get clear-cut information, the discussion was concentrated on the economic activities. In response to the request from the JICA Study Team, the attendants listed individuals and groups related to the agricultural and rural development activities surrounding the village life in Kooffe Bare. The results are tabulated below.

	Farmers' direct answers in Oromo	Translated into English
1.	Hojji missoma qonnaattif "DA" irra	We get agricultural information and advises from
	oddeeffanno fudhachudhaan itti garga	Development Agents (DA).
	ramma	
2.	Qotee bulaa keessaa namootaa hojjii	We select farmers to teach farmers in agriculture
	qonnaatif ta'ee waan birrattif filach udhaan	and other activities. Graduate farmers, who
	qateebultodaa akka barsifnu nigohdamar	experienced EPP for two consecutive crop
		seasons.
3.	Akka gandaata dursa kan nu gargaarc	In our village, we get supports from PA chairman.
	durata'a gandati	
4.	Duraata'a Idderi	Edir chairman
5.	Agentoota Fayya	PA health agent
6.	Kadre qotee blaa	PA farmers cadre (political person selected by
		Wareda Administrator)
7.	Committee copretife	Cooperative committee
8.	Durata'aa gandaa	Community leader
9.	Committee Blchaa anaa	Wareda Administration Committee
10.	Jaarsa biyya	Jarso / Elders
11.	-	Development Committee

Individuals and Groups Concerning Agricultural and Rural Development

The Meki-Ziway Irrigation Project is currently operational to supply pumped water to 216 ha, which are cropped by 337 farmers. Cooperative Committee assists their farmers in procurement of farm credit of Birr 301 per 0.25 ha for farm inputs and electricity charge. Some of attendants in the RRA are participating in this cooperative activity.

There are several committees in the rural area of Dugda Bora. Development Committee aims at promotion of rural development activities including afforestation, soil conservation, road maintenance, etc. Some 24 to 30 HH are organized and headed by the board consisting of three members under the control of PA chairman. There is also the official committee in the rural area for the promotion of EPP, namely EPP Committee. The Committee is organized at Regional, Zonal, Wareda and PA levels, respectively. The committee aims at preparation of the annual program of EPP. The EPP committee at PA level is organized by six (6) to eight (8) members selected among opinion leaders and headed by PA chairman. In Kooffe Bare, this committee is not yet organized.

Agricultural products produced in Kooffe Bare are transported to the Meki weekly markets by villagers and directly sold to consumers. Therefore, the villagers can obtain market information and price conditions of agricultural products not from middlemen or traders, who are often important stakeholders in village life, but directly from local market.

6.2.5 Indigenous Organizations

The communities are further composed of traditional communities. The preliminary assessment recognized the necessity to verify features and functions of these existing communities so as to optimize a systematic approach for community-based development. In the community of Koofe Bare, some traditional community-based organizations such as *Edir, Debbo, Jigge, Wonfel, Mehaber* and *Equb* are identified.

(1) *Edir*

Edir is considered as welfare institution undertaking functions primarily subjected to help defray the cost of funerals, to assist families in the event of death. Members are obliged to contribute to a common fund and to attend the funerals of other members. It is widely prevailing and permanenet mutual help association.

The RRA identified three (3) *Edirs*, namely St. Georgis, Bod Wold and St. Gabriel. These three *Edirs* are organized regardless to the said six groups. Each *Edir* collects Birr 2.0 per month on an average. The fund thus collected is utilized only when *Edir* members need cash for funeral. Some of villagers belong to two Edirs. There are also Edirs formed only by females in Kooffe Bare.

The attendants pointed out that *Edir* is simply a mutual aid society and are not suitable as core body for agricultural and other economic activities. Both SMS/DA and villagers stated negative opinions to formulate the rural communication channels on the basis of *Edirs* in Kooffe Bare.

(2) *Debbo*

Among indiginous organizations, *Debbo* is the most prevailing and active. The main function of the groups is mostly centered to helping each other when there is heavy workload among farmers. It is a temporary labour sharing arrangement prevalent in the community during the peak period of farming practices such as sowing, ploughing and harvesting. Farmers use a coping mechanism when the demand for labour is high. The labour exchange arrangement in *Debbo* is based on mutural truct and consensus among farmers as opposed to any formal contractual arrangement. Farmers organize *Debbo* for harvesting and also building houses or any other matters upon the request of a household requiring extra labour that in turn prepares food and drink for the participant farmers. They have their own governing social rules to undertake tasks assigned. The size of group ranges from five up to 20.

6.2.6 Information Channels between DA and Villagers

(1) T&V System

Until 1994 when EPP was introduced, DAs were instructed to transfer extension messages to selected (leading) farmers, namely Contact Farmers, under the T&V system (training and visit system). A DA divided into his command area into eight (8) blocks and visit all the blocks during two (2) weeks at the pace of one block a day. In each DA command area, 48 contact farmers were selected (six contact farmers in each of eight blocks). One contact farmer had some 10 followers and played as next messenger from a DA to villagers. DAs visited regularly according to the following weekly schedule.

1 st Monday	1 st Tuesday	1 st Wednesday	1 st Thursday	1 st Friday
Block 1	Block 2	Block 3	Block 4	Office
2 nd Monday	2 nd Tuesday	2 nd Wednesday	2 nd Thursday	2 nd Friday
Block 5	Block 6	Block 7	Block 8	Office

DAs currently operated two (2) systems in parallel, namely the regular extension program and the extension of EPP. For the regular extension program, the T&V system was sustained. However, the most of DAs are too busy to perform the regular extension program, DAs take responsibility for collection of down payment and repayment of the EPP packages. Therefore, T&V system has been gradually modified after introduction of EPP since 1994. DAs currently make more visits to graduate farmers, who experienced EPP for two consecutive crop seasons in stead of visiting contact farmers. The EPP significantly influences the channels of communication in the rural area as a whole.

(2) Prevailing communication channels

In the rural areas of Dugda Bora, the DAs are key persons who transfer many kinds of information (sometimes instructions) from government agencies to villagers. The DAs inform not only agricultural extension messages but also administrative (sometimes political) messages to villagers. The communication channels are selected by DAs taking into consideration characteristics and urgency of messages. As for administrative messages such as commencement of new development program such as EPP, DAs firstly inform the PA chairmen to obtain their prior consent. In parallel, DAs inform same messages to community leaders, group leaders and graduate farmers. Alternative channels are illustrated below.



Channels of Communication from DAs to Villagers in Kooffe Bare

It is noted that community leaders are not always recognized as right persons who transfer extension messengers forward due to their insufficient educational background and agricultural knowledge. For example, T&V system is still applied in Alam Tena PA, where 16 communities consisting of 869 HH are divided into 8 blocks (48 contact farmers) at the density of 10 HH to 26 HH per contact farmer. Only four (4) community leaders are contact farmers and the remaining 12 community leaders are not qualified to be contact farmers.

6.3 Community Resource Mapping for Extension Services

6.3.1 Objectives

The rural communities function as appropriated core bodies for agricultural and rural development. Although community leaders are not always the primary persons to be given important information, the community is able to spread the relevant information through plural communication channels.

OADB recognizes urgent necessity to improve the work efficiency of the extension activities and community-based development in Dugda Bora Wareda by inputs of more systematic tools and techniques. In order to verify current constraints against the effective extension services, the preliminary assessment was made in some PAs to indicate geographic extent of each of eight (8) blocks of T&V system, namely the extension map. The assessment verified that the blocks are more or less proportionally divided into eight (8) irrespective of spatial distribution of

communities and present agricultural land use.

Knowing the important roles of the rural community, the JICA Study Team proposed OADB to embark on preparation of basic maps indicating communities, land use and rural assess for each DA command area as a first step for systematic extension services. Within the framework of the verification study, Community Resource Mapping was carried out. The CRM aims at clarifying:

- 1) location and size of rural communities in each PA
- 2) rural road network between communities within each PA
- 3) major community facilities including PA office, DA office, church, mosque, etc.
- 4) major rural infrastructure including wells, school, dispensary, etc.
- 5) land use and vegetation
- 6) natural environment and resources including river, swamp, gullies, etc.

6.3.2 Map Coverage

The Study consisted of two (2) parts. Firstly, the CRM was prepared for entire 54 PAs of Dugda Bora Wareda (54 PA General Mapping). Secondly, the applicability of the CRM in the agricultural extension activities was verified among the selected 13 PAs around the Meki town (13 PA Detailed Mapping). The location of 13 PAs is illustrated in Attachment X-6-1.

6.3.3 Mapping Team

(1) 54 PA General Mapping

The mapping team was organized by OADB Wareda Head (1), Extension Team Leader (1), Planning SMS (1), Horticulture SMS (1) and DAs (27) under the control of the OADB HQ program coordinator (1). They prepared the CRM covering 54 PAs.

(2) 13 PA Detailed Mapping

The CRM committee was organized by OADB Wareda Head (1), SMS (3) and DAs (6) under the control of the OADB HQ program coordinator (1). They prepared several thematic maps on the basis of the CRM and analyzed their applicability.

6.3.4 Material and Methods

1) In the period from June to August 2001, a series of regular meeting was held at

the pace of twice a week for 54 PA General Mapping, while 17 meetings were also held for 13 PA Detailed Mapping. Throughout the study period, four (4) workshops were held to exchange and share the information among the staff.

- Information to be incorporated into the CRM was discussed and selected through the workshops. The legend of the CRM is presented in Attachment X-6-2.
- 3) The DAs were provided only line maps showing the PA boundaries. Each DA covers two (2) PAs, namely DA blocks. This means that Dugda Bora Wareda consists of 27 DA blocks (54 PA).
- 4) Each DA traveled within his service area consisting of two (2) PAs and indicated. This preliminary mapping clarified that 13 DAs out of 27 DAs were recently assigned to Dugda Bora Wareda and could not indicate even road networks of their service PAs.
- 5) In order to facilitate their mapping practices, the relevant DAs were provided the existing 1:50,000 topographic maps¹. The existing maps provide limited information except for major roads, large villages and land use/vegetation.
- 6) The questionnaire survey was carried out for 125 communities of the selected 13 PAs in order to obtain the detailed information to be incorporated into the CRM. The results (Community Profile) of the questionnaire survey is summarized in Attachment X-6-3.
- 7) The selected information (Community Profile) was indicated on the thematic maps on the 13 detailed CRM.
- 8) The applicability of the thematic maps was analyzed.

6.3.5 Community Resource Map (CRM)

Out of 27 DA blocks, 25 DA blocks were covered by the Study. The CRMs worked out are presented in Attachment X-6-4. DAs could indicate the key mapping symbols as listed in Attachment X-6-2, while kiosks, festival grounds and graveyards were not indicated on the CRM.

6.4 Application of CRM for Agricultural Extension

6.4.1 Improvement of Extension System (Modified T&V System)

¹ Prepared in 1982 on the basis of aerial photographs taken in January to February 1980, which were produced by Ethiopia Mapping Authority.

(1) Concept

At present, the extension blocks are simply divided into eight (8) blocks without any consideration of location of rural communities and spatial distribution of agricultural land use & natural vegetation.

It is proposed to divide the DA blocks into extension blocks on the basis of communities and land use & natural vegetation, which are indicated on the CRM. The modified zoning system will contribute to enhancement of work efficiency of extension activities of Dugda Bora. The concept of the CRM-based extension map is illustrated below.



(2)

Present Conditions Case Study

Improved with CRM

The extension map of Bekele Girisa PA (2,172 ha) and Woldiyo Mekidela PA (1,735 ha) covered by one DA (No. 17) is presented in page 6-6. The boundaries of the extension map were transferred to the CRM as illustrated below.



Present Extension Blocks of Bekele Girisa and Woldiyo Mekidela PA

The map clearly shows an imbalance in terms of distribution of communities. Six (6) communities from No. 5 to No. 10 are in Block 7, while none in Block 8. Block 8 is covered by farmland mixed with sparse grassland and scattered acacia trees.

The attempt was made to reorganize new extension blocks on the CRM. Although the agricultural conditions of Bekele Girisa PA and Woldiyo Mekidela PA (DA Block No. 17) are broadly the maize-based rain-fed farming nearly uniform throughout the area. However, slight difference is recognized among the communities.

		House-		Maj	or Crops	(ha)		Irrigation
No.	Name of Community	Hold (no.)	Maize	Wheat	Teff	H.Bean	Tomato	Pump (No.)
1	Baher Dare	39	44.5	2.5	1.0	24.0	0.0	0
2	Kooffe Bare	30	24.5	1.0	0.5	17.3	0.0	4
3	Ginnichi	30	22.5	2.5	1.5	18.3	0.0	0
4	Irresso, Danbal	52	48.3	2.5	1.0	31.3	0.0	1
5	Balcha Wago	29	22.8	1.5	0.3	22.3	0.0	0
6	Karaa Ar Ginni	61	74.0	13.0	4.5	45.8	0.0	1
7	Jereggoo	57	42.8	14.3	3.3	3.5	0.0	0
8	Midekso Duga	150	132.5	12.0	2.5	7.5	8.8	4
9	Villege Kormoa	8	9.5	0.3	0.3	1.0	0.0	0
10	Villege Oddaa Badhasoo	18	18.0	1.8	0.0	2.3	1.5	2
11	Villege Fattenso Hulluka	26	24.8	4.8	2.0	6.0	0.0	0
12	Girma Gelasha	30	26.0	5.5	1.5	4.5	1.3	1
13	Hayillu Vougaa	60	59.5	7.0	3.0	10.0	2.0	1
14	Waaue Waldee	50	47.5	3.0	2.5	17.0	1.3	1
15	Goljaa Yae	75	72.3	5.0	2.5	22.3	2.0	2
	Bekele Girisa Total	715	649.5	76.7	26.4	233.1	16.9	17

Agricultural Data from Community Profiles of Bekele Girisa PA

In Bekele Girisa PA, the number of households largely range from 8 of Villege Kormoa (No. 9) to 150 of Midekso Duga (No.8). Accordingly, the farmland distribution is also fluctuated. Apart from cereal crops, haricot beans are expanding Karaa Ar Ginni (No. 6) and some other communities. The communities located along the Meki river, e.g. Midekso Duga (No.8), irrigated tomato is produced.

		House-		Maj	or Crops	(ha)		Irrigation
No.	Name of Community	Hold	Maize	Wheat	Teff	H.Bean	Tomato	Pump
		(no.)						(No.)
1	Kilittu Broffaa	83	34.3	2.8	0.8	0.0	3.0	1
2	Melka Goromitti	26	26.0	4.8	1.0	0.0	3.0	2
3	Odda Chuppata	87	21.5	4.5	2.5	7.5	0.8	1
4	Melka Fassasa	89	22.8	1.3	0.8	0.0	0.0	0
5	Melka Gabro	88	41.8	7.5	1.0	0.0	0.8	1
6	Raggo Gobbanna	41	49.0	10.0	4.5	0.0	1.5	1
7	Dagaggaa Kobbaa	36	44.0	2.0	0.5	0.0	3.0	0
8	Qaee Sillaasse	85	13.3	0.5	0.0	0.0	0.0	0
	Woldiyo Mekidela Total	535	252.7	33.4	11.1	7.5	12.1	6

Agricultural Data from Community Profiles of Woldiyo Mekidela PA

Note : No dada available for community No.9 and No. 10

In Woldiyo Mekidela PA, the household numbers of communities range from 26 to 89. The irrigation activities are prevailing almost all of communities. Teff production in Raggo Gobbanna is notable.

On the basis of community size and predominant crops, the extension blocks are reorganized as illustrated below.



Extension Blocks Reorganized on CRM

It is noted that the size of the block on the CRM does not mean the extent of the farmland. The farmers generally have some fragments of farmland, which are broadly scattered with distance from their community. The distribution of farm households is more leveled off up to 150 HH per block as summarized below.

Map		I	Total House	holds by Ex	tension Bl	ock (HH)		
	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7	Block 8
Existing	69	177	125	57	292	285	250	0
CRM	99	199	150	82	185	196	177	162

Distribution of Households by Extension Block

6.4.2 Application to Extension Package Program (EPP)

(1) Concept

At present, most of farm input packages provided under EPP contain only fertilizers, while some 20% of EPP include improved seeds due to shortage of qualified seeds in the country. Bureau of Agriculture advises farmers to obtain better seeds (2nd generation) multiplied from improved EPP seeds in the previous crop season. It is, however, difficult for farmers to access better seeds due to lack of information of EPP.



EPP Service Coverage and Distribution of Improved Seeds

The CRM can indicate geographic positions and coverage of EPP in both 2000 and 2001. The DA will be able to advise to the communities, which do not have

improved seeds, to contact the communities covered by EPP-2000 for procurement of better seeds (EPP 2nd generation seeds). The systematic yield sampling survey in the EPP areas will be designed on the CRM. It will clarify how much EPP contributes to improvement of crop yield.

(2) Case Study

The EPP package for maize was introduced to Bekele Girisa in 2001. In 2001, 29 farmers obtained qualified maize seeds. The preference for EPP is expanding in the PA. According to the questionnaire survey, 48 farmers are willing to utilize EPP in 2002. Due to nationwide seed shortage, however, all of 48 farmers will not be able to obtain qualified seed through EPP. To mitigate seed shortage, farmers have to obtain seed of 2nd generation multiplied from the EPP seed. Multiplied seeds are available in the communities No. 13, 14 and 15, which are located in the northern PA. It is possible for the DA to advise these communities where the multiplied seeds are available. The following table presents that the performance of EPP in 2000 and 2001 as well as the communities, which are willing to utilize EPP in 2002.

		House-		EPP (No.)	
No.	Name of Community	Hold (no.)	Performance in	Performance in	Preference for
			2000	2001	2002
1	Baher Dare	39	0	2	3
2	Kooffe Bare	30	0	2	4
3	Ginnichi	30	0	4	6
4	Irresso, Danbal	52	0	4	7
5	Balcha Wago	29	0	3	3
6	Karaa Ar Ginni	61	0	5	6
7	Jereggoo	57	0	0	0
8	Midekso Duga	150	0	7	3
9	Villege Kormoa	8	0	0	0
10	Villege Oddaa Badhasoo	18	0	0	0
11	Villege Fattenso Hulluka	26	0	0	0
12	Girma Gelasha	30	0	2	5
13	Hayillu Vougaa	60	0	0	4
14	Waaue Waldee	50	0	0	3
15	Goljaa Yae	75	0	0	4
	Bekele Girisa Total	715	0	29	48

EPP by Extension Block

The spatial distribution of the qualified seeds and their requirement is illustrated on the CRM.



Improved Seed Supply to Seed Shortage Communities

6.4.3 Provision of Extension Message to Meet Local Requirement

(1) Concept

Extension advice to DAs is provided with less consideration of specific local conditions of agricultural system. It is difficult for DAs to select the advice to meet requirement among individual communities. In future, really required information will be identified on the CRM s by Wareda Agricultural Office and provided to communities through DAs to meet more local requirement.



Provision of Extension Message to Meet Local Requirement

(2) Case Study

The 15 communities of Bekele Girisa PA were characterized according to the cropping intensity of prevailing crops, namely maize, haricot bean, irrigated tomato and chilies, for which demand of extension information is high. The prevailing crops are indicated according to the following five (5) conditions.

_	-		-
	1) Maize dominant area	:	Maize covers over 50% of the total cropped area.
	2) Maize/Haricot area	:	Maize and Haricot beans cover over 25%,
			respectively.
	3) Haricot area	:	Haricot beans cover over 10%.
	4) Irrigated tomato area	:	Irrigated tomatoes are planted.
	5) Rain-fed chilies area	:	Rain-fed chilies are planted.



Crop Zoning on CRM

From the agronomic point of view, Bekele Girisa is broadly divided into the following three (3) crop zones.

Zone I : Maize & haricot bean area

Zone II : Maize predominant area + Irrigated tomato

Zone III : Maize predominant area + Rain-fed chilies

With reference to the crop coverage map the DA will be able to provide selectively the extension message according to the local requirement.

6.5 Potential Use of Community Resource Map

6.5.1 Identification of Bottom-Up Needs

At present the OADB Wareda Office does not have a proper system to identify agricultural constraints of local farmers within Dugda Bora Wareda. The Office needs to listen more to bottom-up needs among a community and identify their geographic distribution to set up effective countermeasures and extension services program.



Bottom-Up Needs

The constraints are changed from location (community) to location (community) such as problem soils, erosion hazard, lack of grazing sources, etc. These constraints will be indicated on the CRMs. The technical advice will be provided to meet such local needs to be identified on the CRMs.

6.5.2 Strategic Extension Program with Development Targets

DAs provide extension advice to individual farmers without any strategies and program. It is difficult for both the Wareda Agricultural Office and DAs to carry out the systematic extension services due to lack of the annual programs and development targets.



Potential Use for Strategic Extension program

Extension services required as well as development target change from location (community) to location (community). For instance, crop selection and copping

X – 6 - 18

seasons (sowing periods and harvesting seasons) are slightly different by community. Due to soil fertility and farmers skill level, crop yield also range by community. Annual and long-term development targets will be carefully set up with communities. All these information will be incorporated into the annual work programs of the Wareda office and DAs.

6.5.3 Potential Use of Community Resource Map

The current study focused on the application of the CRM for the agricultural extension services under the control of OADB. The DAs are one of the most important key informants in the rural area. Needless to say, their knowledge and work experience are directed more to agricultural specific aspects. However, the potentialities of CRMs can be exploited by other experts for further useful applications.

In this regard, the Study assessed further potential uses of the CRMs on the basis of the experiences obtained through the verification study of the CRM made by OADB. They are summarized below.

- (1) Training of community leaders by the cooperative committees
- (2) Promotion of new cooperative formation
- (3) Data collection by Wareda Administration Office
- (4) Promotion of Participatory Development
- (5) Improvement of communication among the communities
- (6) Disaster prevention



EXPLANATORY OF CRM (COMMUNITY RESOURCE MAP): Ibsa Kaartaa Qabeenya Uummataa

Kaartaa kee irratti mallattoo armaan gadiitti fayyadami



QUESTIONNAIRE FOR COMMUNITY LEADERS THROUGH DEVELOPMENT AGENT DUGDA BORA : MEKI DEVELOPMENT PROJECT OROMIA REGIONAL AGRICULTURAL DEVELOPMENT BUREAU

lithe here is a second

-si |

Community Name:	Leaders Name	Name of P.	Extension DA No. Name	of DA	Date
		L <u></u>			
Age:	Educ	ation: years	Literacy: Amhal	lic; 🔲 Oromo)	
1. Basic Data:	(1) How many hou	iseholds in all do y	ou have in your communit		—
	(2) How many oxe	n-days of cultivab	ou have in your communit	y?	
	(3) How many oxe	n-days of commun	ic land 2		
	(4) How many cat	n-uays of commun	aliand ?		
	(5) How many peo	pie with voting rig	t in PA chairman election	1? <u> </u>	
	(6) How many wel	15 7			
	(7) How many dom	key carts ?			
	(8) How many irri	gation pumps ?			
	(9) How many tim	es of visit by DA in	n one year ?		
2. Crops and crop EPP:	How many Nos of	household in each	crop? How many oxen-d		
• · · · · · · • • • • • • • • • • • • •	How many Nos. of	nousenoid in each	this year 2	ays planted in ea	ich crop ? and
	1,03, 01	Nos of househole	-	CODD D.	
	(1) Maize	inos or nousenoi	ds Oxen-days No	s of EPP Plots	
		ļ			
	(2) Wheat (3) Toff				
	(3) Teff				
	(4) Haricot-bean	·			
	(5) Rainfed Chilly				
	(6) Tomato				
3. Livestock:	(1) How many Noe	of playabing and			_
· · · · · · · · · · · · · · · · · · ·	(2) How many hors	or brongning exer	n do you have in your com	nunit	
	(3) How many don				
			·		
	(4) How many goat				
	(5) How many chic	kens?			
4. Women Activity:	(1) Is there any wo	men's association i	n your community ?		
6	(2) Do you have " \mathbf{A}	rake" production	in your community ?	(YES;	NO)
	(3) Do you have e y	oting right in wor	an for PA election ?	(YES;	NO)
	(d) Do you mave a v	oting right in wom	an for PA election ?	(YES;	NO)
	(4) Do you want to	start any program	in women's activity, poult	ry rasing for exa	mple ?
				(YES;	NO)
5. Enviromental Affairs:	(1) Do you have son	ne difficulty by gu	llies in your community ?	(VES.	NO
	(2) Do you have lar	e forest/ hare lan	d in your communal land ?	(YES;	NO)
	(3) Do you have dif	ficulty in access ro	ad condition in rainy seaso	(YES;	NO)
	(4) Have you plante	d trees by FDD +63	s year in your community		NO)
	(i) mare you plante	d dees by kirr th	s year in your community	? (YES;	NO)
6. Opinion from your con					
	(1) Is the extension	work by DA in voi	ur community enough ?	(YES;	NO)
	(2) Do you want to a	get more EPP serv	ice in your community ?	(YES;	,
	(3) Do you want to	ommunicate with	another community ?		NO)
	(4) Do you want to I	old a joint festive	I with another community	(YES;	NO)
	(5) Are you willing	o exchange cron s	eeds from another community		NO)
				ny (1E3;	NO)
7. Comments by Commun					
	Please write any pro	blems, any reques	ts, any opinions in agricult	ural extension a	nd EPP, etc.
					7

Result of Community Survey in 13 PA: 125 Communities

	No. <u>Computity of</u>		2 3 ma/lit_Geometrica	Cattle nos Vi	6 7 (ette Donk	8 A. Cumps	9 DA		11 Minat I	12 Istí	13 <u>H. B</u>	14 <u>FL o)sili</u>	15 N Lemate		17 EPECALE	18 1990 E	19 20 PP(H6_EPP(R	21 C. EPP(To	22 0	23 Horae, C	24 Doolay_ (25 Seat. 1	26 2 Chikan We		29 30 116.116				34 35 a x. § Cenetraic e
DA6: PAS	1	出出 17	(ha) (ha) 3.6 28.5	لطنا د 6.9	uan sactu O 6		100 xinit	(ba) 32.75	(سط) 7.75	(<u>ba)</u> 9	(<u>امدا)</u> 4.5	(ha) 5.25	(<u>ha)</u> 0	<u>elete</u> G I	eleta 3	elete D	<u>etete etete</u> i O	<u>eiota</u> O C	16 Desi	0 0	021 10	094 27	nes 181		Yes	Yes		Yes Y	
	2	50	0.8 21.25	7.5	2 26			27.25	3.25	2.5	3	4.5		żŏ	õ	ŏ	ŏ	í ŏ	95	ŏ	31	43	396	Yes	Yes	Yes		Yes	••
	3	56	2.4 142.25	8.9	1 41	2		97,5	15.5	4,75	7	6	Ó :	3 1	Ó	Ō	Ō	0 0	99	1	87	96	495		Yes	Yes		Yes	
··· · · · · · ·	4	34	7.3 37	16	1 5	-	260	52.5	52.75	77.5	39	8.25	0	6 0	3	0	-	0 0	77	4	27	128	247		Yes		Yes '	Yes Y	(es
DA6; PA10	1	43 55	3,1 181.75	8.4	1 12			87.5	11.5	24.75	3.25	7,75	5.75	1 0	0	0		8 (53	2	31	68	388		Yes Yes				
(Dediti Dembel)	2	33	3.4 49 4.9 104.25	9.5 14.4	0 16			75.25	50,25 52,75	47 45,75	16.75 15.5	4.25 2.25	0		Z 1	0 0	0 18		99 96	4	96 23	116 135	486 238		Yes Yes Yes Yes		Yes ' Yes	¥e£	
	4	38	23 213	8	1 10		240	30.5	11.25	24.5	4	6.5	12.3			ŏ		, , , ,	90 65	5 1	20	53	326		Yes Yes			Yes	
	5	33	3.5 71.75	10.3	0 6			27.25	46.5	28	14.25	3	0	5 0	ò	ō	-	5 0	69	3	15	71	247		Yes Yes				
	8	23	5.1 63	14.2	0 5			25.5	46.25	27	15.25	3.25	0	6 O	0	0	0	0 (40	3	19	90	263		Yes Yes	Yes	,	Yes	
DA16PA28	1	80	1.1 2.5	2.8	0 6			35	20	16.25	12.5	0	0	i o	2	0	-) (130	1	6	65		os Yes					
(Hete Leman)	2 3	38 63	1.6 \$ 1.8 7,75	6.2 2.3	0 23		20 12	30 21.25	15 13,75	12,5 5	7.5	0	0		20 20	10 10	-) ()) ()	8 76	3	23 25	72 95		ss Yes ss Yes	Yas Ya	L.			
	4	91	1.4 3.75	2.3	1 10		5	37.5	33,75	27.5	13	0	0.		20	0	-	, 0 , 0	45	2	10	95 120		ss res s Yes					
	5	48	1.8 5.25	4.2	0 8		12	21.25	13,75	15	7.5	Ō	ō	5 1	6	3		ōō	96	3	23	39		es Yes					
DA16,PA29	1	50	1,5 0	4.2	0 4			52.5	36.25	25	5	0	0	1 0	0	10	-	o c	89	0	8	175		ss Yes		Yes	Yee		
(Tepho Choreke)	2	45 74	1.1 2.5	5.4	1 25		12	30	25	28.75	17.5	0		2 0	2	90	0		200	5	35	140		es Yes					
	4	100	3.4 2.5 1.2 12.5	4.1 2.9	0 15		12 20	17.5 22.5	5 15	5 12.5	2.5 5	0	0	30	10	10	-	0 C	22 100	1 2	8 20	160 87		ns Yes ns Yes			Yes '	T #8	
	5	50	1.9 10	4	0 30		10	22.5	20	27.5	17.5	5	5	• •	ŏ	50		5 0	140	ź	20	209		cs tes cs Yes					
	5	105	1.5 103.25	3.9	0 11		12	50	25	37.5	25	12.5	25		10	50	-	5 õ	148	4	20	105		ss Yes					
DA16:PA30	1	84	1.5 0	6.3	0 15		5	37.5	25	17.5	6.25		0.5		0	0		0 0	67	2	15	125		as Yes					
(G. Korke Adi)	2	74 43	1.5 2.5 1.3 3.25	2.7 0.5	0 15			35 20	22.5 11.25	20 8.75	17.5 2.5	0	0		0	1	-	0 C	120 80	5 0	20 10	154 30		os Yes				v	
	3	50	1.3 10	2.1	o á	-	12	27.5	22.5	21.25	3,75	ő	Ö.		5	30	-	5 0	100	ŏ	15	33		ns Yes ss Yes				Yes	
	4	32	1.3 15	1	Õ e	i o		17.5	12.5	5	2.5	1.25	ō	i 0	ō	-0		ō	60	ŏ	15	75		as Yes					
	5	20	2.5 2.5	12	0 10			35	27.5	50	22.5	0	0	55	0	30	0	0 (76	2	10	313			Yes Yes				
	5	85	1.3 18,75	23	0 4			25	12.5	2.5	1.25	2.5	1.25		0	0	-) 0	63	0	7	15		es Yes					
	-	30 80	1.5 2.5 1.4 6.25	9,5 4,5	1 5	-		15 25	10	5	1.25	2.5	0		0	10		0	10	0	.7	13		es Yes		Yes			
	9	120	1.5 12.5	2,5	0 5		20	12.5	20 10	5 7.5	7.5 2.5	10	2		0	10	-) ()) ()	90 80	3 1	15 5	45 80		sa Yea sa Yea				Yes	
DA17:PA31	1	39	1.9 11.75	8	2 23			44,5	2.5	1	24	1.25	ō	1 1	ő	0		5 ŏ	70	2	23	121	181		Yes Yes			Y,	es
(Bekels Geriss)	2	30	1.4 1.75	4,4	0 19		16	24.5	1	0.5	17.25	0	ō	z Ó	õ	ŏ	õ		28	1	23	89	172		Yes Yes				65
	3	30	1.5 3	4.9	5 6	-		22.5	2.5	1.5	18.25	0	0	3 3	1	2	-) ()	46	Û	7	103	160		Yes Yes				
	4	52 29	1.6 3.5	4.6 7	Z 43		21	48.25	2.5	1	31.25	0.5	0	4 3	0	0	0		96	1	42	133	210		Yes			Ye	85
	5	29 61	1.6 2.75 2.3 12	3.7	4 29		14 18	22,75 74	1,5 13	0.25 4.5	22.25 45.75	0,75 1.25	0 : 0 :		0	0	0) ()) ()	61 188	4	33 61	215 183	240 301		Yes Yes Yes Yes			v.	
	,	57	1.4 1.75	3.8	0 33		11	42.75	14.25	3.25	3,5	15.8	0		ő	0	-) U	74	3 0	33	114	228	Yes				10	••
	8	150	1.4 2		10 131			132.5	12	2.5	7,5	47.5	8.75	•	ō	ŏ		5 0	249	5	132	378	542		Yes Yes				
	\$	8	1.5 0.25	5.4	0 0) ()	5	9.5	0.25	0.25	1	1	0		0	Ō	Ô (, o	9	ō	2	36	39		Yes				
	10	18	1.5 0.5	5.2	1 9	-		18	1.75	٥	2.25	3	1.5 10		0	0	0		68	0	11	45	86	Yes	Yes		۱	fes 👘	
	11	26	1.5 1	3.5	4 3		19	24,75	4,75	2	6	2.5	0 1		0	0	0 0		42	0	10	85	102		Yes Yes			Ye	85
	12 13	30 60	1.5 1.25 1.4 6.75	4.8 3.9	0 9		14 18	26 59.5	5.5 7	1,5 3	4,5	7.5	1.25 12		0	0	0 0		42 101	0	6 31	105 207	128 239	Yes					
	14	50	1.5 0	4.9	3 4		14	47.5	3	2.5	17	5	1.25 1		5	0	0	•	83	1	19	209	254	Yes Yes					
1	15	75	1.5 0.75	4,7	5 32	2	18	72.25	5	2.5	22.25	4.75	2 1		ŏ	õ	ŏ		114	4	35	269	365		Yes Yes				
	1	83	0.8 9.5		42 41		8	34.25	2.75	0,75	0	27.8	3	1	0	Ó	Ō i	-	114	3	40	305	345	Yes	Yes Yes		١	fes Ye	
	2	88	0.8 4.75		25 44			26	4.75	1	0	34	3 3		0	0	0 1	-	145	4	74	72	169		Yes Yes		۱	fes Ye	es
	3	41 36	10	3.7 3.6	2 6		13 13	21.5 22.75	4.5 1.25	2.5 0.75	7,5 0	4.25 10.8	0.75		2	0	0 1		63 53	0	8 11	103 113	126 135		Yes Yes				
	5	87	0.9 0		53 35		11	41.75	7.5	0.75	0	26	0.75		2	0	0 1	-	53 63	2	50	113	135		Yes Yes Yes Yes		,	fes Ye	53
	6	89	14		3 22		12	49	10	4,5	ŏ	24	1.5		ŏ	ŏ	a d	-	153	ŝ	29	265	340		Yes Yes			Ye	83
	7	85	0.8 5,75		18 58		11	44	2	0,5	0	22.3	3	7 Ö	Õ	Ō	ō i) Ö	145	2	85	76	270	Yes			١	fes Ye	
DA18:PA33	8	26	0.9 0.5		13 9	-		13.25	0.5	0	0	10,3	01	3 0	0	0	0 (49	0	23	63	105	Yes		÷		(45	
DA 18;PA33 (Welye Kelina)	2	28 48	1.5 0.5 1.9 0.75		23 5 48 15		14 114	25 53.25	1.5 5	t 0	0 0	14 35.5	0 1	2	2 12	4	0 (40	2 6	10	15	100		Yes			65	
······	3	124	1.5 15		46 13		24	33.25	ې 3.75	2.5	2.5	35.5 87.5	3.75		12	0	0 14		72 188	6 3	15 65	20 150			Yes Yes Yes Yes		Yes Y Yes Y	(65 (65	
	4	50	2.1 1.5		29 5	-	24	60	3,75	0	2.0	40	0 4	-	4	ŏ	0 1	-	118	12	34	100	880	- 162	Yes			(85 (85	
	5	141	1.3 0.75	4 1			12	105	10	2.5	Ō	70.8	ō :	i 4	2	7	0 10		260	16	80		3000		Yes		-	144	
	6	30	1,1 1	4	0 15		24	15	1	0.5	0	13.5	0 0		0	0	0 0	-	40	2	3	15	300		Yes		Yes Y	65	
	7	98	1.3 2.5		98 40 22 15		13	65	2.5	3	1	47	4		2	4	0 4	-	100	6	50	160		s Yes	Yes Yes		Yes Y		
	9	33 29	1.2 0.5 1.3 0.5		33 15 29 5		4 24	16,5 21,75	2	1.5 1	2	16.5 14.5	0.25 8		2	0	4 0	-	50 60	4	20 10	10 30	1000 300		Yes Yas		Yes Y		
						່ປ	<u> </u>	41,13												4							Yes Y		
	10	10	1.5 1		10 2	0	-11	10	0	0	ō	5	0 10	0	ō	ō	0 0		20	4	6	30	60		Yes Yes Yes		Yes Y		

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<u>L PA</u>	No. Community name	1	2 3	4	6			9	10	11	12			5 No							22	23	24	25			28 29				33 34	
		Ш	(ha) (ha)	ZHH	806	carta	191. 1	visit	(ha)	(ha)	(ha)	(ha) ((ha) (t	1 11		olota p		ata c		eleta	028	195	Donky (Donky (09.1	023	no-1 n			, <u>Cnv. I</u>	<u>ENV. 2 E</u>	<u>w. 1 Em</u> .	- 190
18;PA34 bi Gemo)	1 2	24 13	2 2.5 2.2 0.25	5 12.5		5 5	0 0	12 12	21 15	9 3.25	8.25 6.5		3.5 0.5	01	0	2	4	10 10	0	0	40 26	2	8 22	150 45	230 60		Ye V.	15. 25. Yes				
	3	33	1.7 0	1.8	23	4	Ö	24	33	4.5	5,75		8.25	03	ů	ò	Ď	0	0	õ	20	2	5	45 15	38			ns Yas		Yes		
	4	101	1.9 1.5	2.2		25	ŏ		75.75	45	50.5		3,75	04	ŏ	6	10	ō	ŏ	ŏ	70	ò	26	20	3000					Yes		
	5	68	1.8 0	6.1	68	15	Q	24	51	12.5	6.25	2.5	51	05	1	0	0	0	0	0	69	3	6	50	200	Yes	Ye	19	Yea	Yes		
	6	42	1.5 0.5	4.8	42	8	0	12	31.5	6.25	5	0	21	06	0	2	1	٥	4	0	60	1	8	10		Yes		is Yes		Yes		
	7 8	70 32	1.5 0 1.7 1.5	8	70 32	20 16	0 0		53.75	10 5	4,25	0	40	07	16	14	4	12	0		114	12	20	30		Yes Y	(as Ya		Yea	Yes		
	9	42	1.6 0.25	7.2		20	0	12 12	24 31.5	э 3.75	3,75 2.5	6.25 6.25 2	16 21 5	08	2	0	10 10	5 15	02	0	64 76	16 1	26 20	150 150	400		Ya (as Ya			Yee		
	10	39	1.8 3.5	7.6		15	õ	12	31.5	5.75	3,75		22.3	0 10	- 2	Å		0	1	ŏ	60	6	30	80	2000		as Ye			Yea		
	11	41	1.3 0.75	3	4	8	ō		30,75	2	1	ō		0 11	2	4	2	ā	20	ŏ	42	4	B	82	300	•	Ye			Yes		
	12	42	1.6 1.5	4.8	12	9	0	20	42	1	1,5	1	21	0 12	1	4	2	ž	4	ō	46	4	12	38	190			-		Yee		
	13	16	2 0.5	6	16	4	0	12	18	2.5	1	0	12	0 13	0	0	0	0	C	0	20	- 4	8	10	100		Ye	is Yes				
	14	23	1.6 1.5	4,3	23	5	0	2	17.25	5,75	5,75		5.75	0 14	0	3	10	0	2	0	20	2	11	70	100		Ye			Yes		
	15 16	44 22	1.7 1.5 2.8 2	3 10	44 8	20 4	15 2	12 12	34,5 03	7	3.75 9	1.75		6.5 15	3	0	0	0	0	4	60	4	26	40	3000		Ye			Yes		
	17	23	1.7 0.75	7.8		6	á	21	20	1	2,5	2.5 1		1 16	0	10 4	0 2	0	2	0	36 40	3	4	88 16	200	Yes	Ye Ye	IS Yes		Yes Yes		
	18	12	2 0.5	6	4	8	õ	12	11	1	1		5.5	0 18	ŏ	1	ō	õ	3	õ	22	1	6	30	110		Ya			Yes		
	19	65	1.5 0	9.2	16	7	2	12	61	1	0.5			2.5 19	Ō	7	ō	ō	ō	õ	80	3	16	50	1000	Y		a Yes		Yes		
9;PA35	1	76	2.1 15	3.9	0	20	0		28.75	57	50		5.25	01	0	50	20	0	0	-	100	Û	50	220			íes Ya		Yes		es Yes	
hi Sumeyan	2	40 20	5.2 90 2.7 45	7.5 15	1	12	0	60	160	17.5	20	5	5	02	5	10	6	0	0	0	54	1	30	74	150	Yes	Ye				es Yes	
	4	20	2.7 25	10	2	20 18	0 0	60 30	15 17.5	12.5 15	12.5 12.5		4.5 2.5	03	0	18 0	2 15	1	0	0 0	100 75	4	20 20	140 145	100		Ye Ye				es Yes es Yes	
	5	15	3.1 45	10	ō	10	ŏ	60	15	13.75	10		2.5	0 5	õ	2	10	ŏ	õ	Ŭ	35	ò	15	90	80		Ye				es res es Yes	
	6	47	5 53.25	6.4	6	16	0	20	175	22.5	24.25	5	10	06	õ	2	0	ŏ	ŏ	ō	92	14	25	190		Yes Y	es Ye			Yes Y		
	7	20	2.7 45	5	0	10	1	45	20	12.5	11.25	5	5	07	0	1	6	0	0	۵	40	4	10	80	80		Ye	18		Yes Y	es Yes	2
	8	30 20	2 43.75 2.5 45	3.3 12.3	2	25 20	0 0	40 40	20 15	17.5	16.25		2.5	08	0	2	3	0	0	0	60	3	25	120	200		Ye				es Yes	
	10	15	4.6 45	5.3	2	20	Ö	40	20	12.5 17.5	12.5 16.25	10	2.5 5	09	0 0	6 6	10 9	4	2	0	60 35	4	20 7	110 85	210 80		Ye: Ye:			Yes Y Yes Y		-
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	12	30	2.7 45	6.7	3	30	0	30	22.5	20	18.75	15	5	0 12	0	10	15	Ó	0	Ō	65	6	30	155	210		Ye	15	Yes '		as Yes	
19;PA36	1	15	1.2 0	2	0	13	0	60	7.5	3.75	5		1.25	01	0	0	2	4	0	0	22	0	15	5	60	Y	es Ye				Yes	-
as)	2 3	25 30	1.8 2 3.3 2.5	10 3.3	0	10 25	0 D	35 35	20 50	7.5 22.5	12.5 20	5 5 (0 0.75	0203	- 1	0	0 25	0 A	0	0	38	0	13	35	80			s Yes		Yes	Yee	
	4	20	5.1 10		ŏ	0	ő	20	50	10	30		1.25	0 4	0	20	20	8 0	0	ņ	60 40	0	29 9	200 2	200 30	~	Ye: 'ez Ye:		Yes	T	es Yes Yes	
	5	14	212	7.1	ō	5	ō	30	12.5	5	2.5		0.5	05	õ	õ	10	ŏ	ŏ	õ	26	ŏ	- 11	30	40	1		s Yes			Yes	
	6	-44	6.9 25	2.3	0	25	0	35	88	25	110	77	3	06	6	2	1	Ō	Ö	0	100	1	44	70	100		Ye	\$	Yes	Y	05 Yes	
	7 B	40 43	4.4 7.5	6,3	0	10	0	40	80	5	82.5	5	2	07	0	0	0	1	0	0	68	0	22	450		Yes Y	es Ye		Yes		as Yes	
	9	43 20	1.8 2.5 8.5 2.5	2.3 4.5	0	3 20	0 0	50 45	26.25 20	25 15	20 10		1,5 1,5	08	0	2 15	30 15	2	0	0 0	129	2	39 22	160 215	195 120		Ye: Ye:		Yes Yes		es Yes es Yes	
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