

**PARTICIPATORY RURAL APPRAISAL (PRA)
FOR RESOURCE MANAGEMENT IN OROMIA, ETHIOPIA**

**APPLIED IN:
BODA BOSOQA PA, DANDI WOREDA,
WEST SHEWA ZONE, OROMIA**



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Acknowledgments

This work is the result of an intensive one week data collection, analysis and planning carried out by a capable and hard working multi-disciplinary team. The team worked relentlessly - day and night - to produce a very good quality work at the originally planned period of time. Every team member's commitment, creativity, team spirit and sense of humor deserves a credit.

Our sincere thanks go to the people of Boda Bosoqa - male and female - who have received the team with warm welcome, offered their food and drinks and, above all, devoted their precious time, knowledge and energy to make the work successfully complete.

Last but not least, we would like to express our heart felt gratitude to the Head of West Shewa Zone Department of Agriculture and the Head of Dandi Woreda Office of Agriculture for their logistical and moral support.

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1. Introduction

The GTZ supported Land Use Planning and Resource Management Project in Oromia Region (LUPO) is working in the Oromia Regional state since the beginning of 1997. The Project's core focus is promotion of sustainable land use through participatory land use planning and land resource management.

Since its start, LUPO has recorded remarkable achievements, particularly in its first pilot Zone - North Shewa. The Project has been able to train Participatory Land Use Planning (PLUP) team for North Shewa Zone, produce community action plans (CAPs) for three PAs and implement micro-projects planned in the CAPs. The implemented micro-projects include small scale irrigation, drinking water supply/springs, soil and water conservation supported by indigenous knowledge from Konso (Southern, Nations, Nationality & Peoples, savings and credit for women's groups, high land fruit promotion, vegetables, etc.

Parallel to running these projects in North Shewa, LUPO is launching work in the second pilot Zone - West Shewa. Prior to this current PRA, it has carried out some ground work, that is, conducted a base line study of the Zone, held familiarization workshop which was attended by all partners, selected intervention PAs (Boda Bosoqa, Dandi Sulu, Dandi Mumicha) and conducted researches in these PAs on a number of issues, including *local organizations and their potential for cooperation with LUPO, socio-economic/political/cultural characteristics* , *the situation of women* .

LUPO follows a step-wise approach to participatory land use planning (PLUP). Training of PLUP team is one of the key elements of the approach. Hence, in West Shewa, a team of multi-disciplinary professionals received training in Participatory Rural Appraisal (PRA) methods, communication and animation skills and interpretation and application of aerial photography for land use planning. The primary responsibility of the team is to facilitate the planning and implementation of community-based land use plans and resource management in the Zone, with particular emphasis on LUPO intervention areas.

28 participants attended the training from 30 November - 13 December, 1998.

11 persons were selected to make up a team who facilitated PRA in Boda Bosoqa, from 11 - 16 January, 1999. The PRA was the first step towards participatory land use planning. Thus, the objective of the PRA was to produce a community action plan (CAP), which considers community felt-needs as well as solutions and which lays the ground for producing a comprehensive participatory land use plans.

This report attempts to provide information which felt are quite relevant to land use planning and resource management. We intentionally avoid to repeatedly present what are already available in our data bank/library. Reference is made to reports of researches cited earlier in paragraph 3, above. Therefore, the report discusses selected land, resources and agriculture related issues, focusing on community identified/prioritized problems and, thereby, action plans drawn to alleviate those problems.

2. General Information on the area

Boda Bosoqa Peasant Association (PA) is found in Dandi woreda, West Shewa Zone of Oromia Regional state. The PA is located/situated in the south of Ginchi town, the capital of Dandi woreda. It has a small town known as Boda, which is 21 km away from Ginchi. Boda is a center where social services, which include one junior secondary school, one clinic, 5 grinding mills, markets (2 market days a week), kiosks, DA house and office, service cooperative office and PA office are concentrated. A newly built but not hundred per cent complete road connects Boda with the capital, Ginchi and Tulu Bolo town (on the Addis-JiMma road) via Busa (neighboring town).

The land form of the PA is characterized by a mix of hilly, undulating and plain. The altitude of the area ranges from 2500 to 3200 m.a.s.l. Just by look, one can say the area is divided into two parts, lower and upper parts. The lower part lies towards Boda town with low altitude (east), while the upper part lies towards mount Dandi (west) with higher altitude. According to secondary sources, the total area of the PA is about 1600 hectare or 40 *gasha*, making it the second largest PA in the woreda (the first one being Bashi Qiltu).

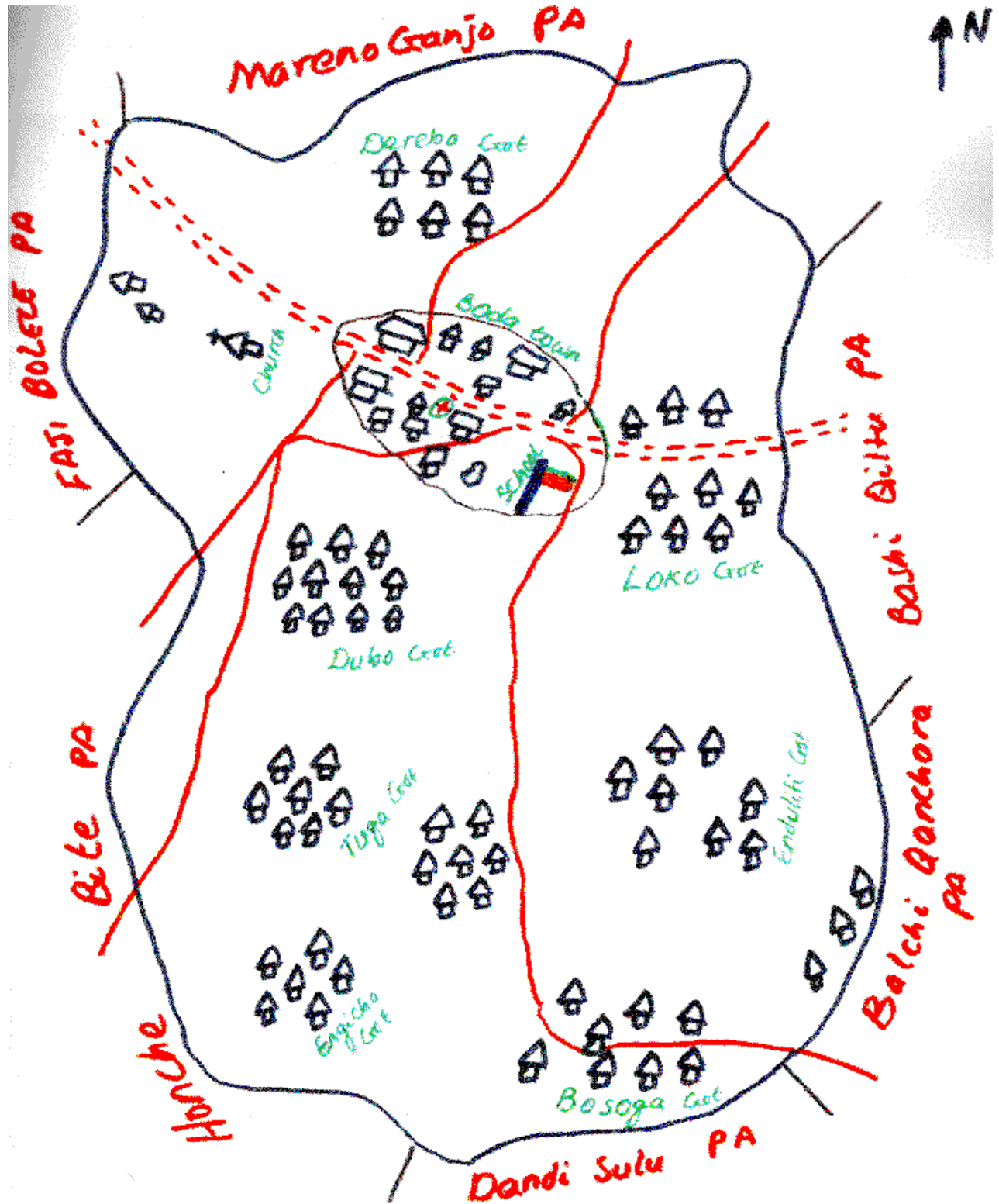
The PA is divided into thirteen clusters or villages, known as *gots*. For administrative purposes, however, the PA administration has reduced the number of *gots* into eight, by putting the small *gots* together with the larger ones. List of the *gots* are **Boda** town, **Dereba**, **Loko**, **Dubo**, Honche, Tolcha, Sombo, Chobe (lower part of the PA) and **Tuqa**, **Engicho**, **Enduliti**, **Bosoqa** and Gindo (Upper part of the PA). The 8 major *gots* are highlighted (see Figure 1: Social map of Boda Bosoqa).

Boda Boska PA is bounded by six PAs, namely; Mareno Ganjo on the east, Dandi Sulu PA on the west, Bashi Qiltu PA on the south, Balchi Qenchera PA on the south west, Wonchi Bite PA on the North and Faji Borate on the north east (see Figure 3: Resource map of the PA).

The most dominant religion is Orthodox Christianity. In terms of ethnic composition, the Oromos are the largest populated (96%), while the remaining are Amhara (3%) and Gurage (1%). The total population of the PA is estimated to be 3090 (W. Lobe, June 1998).

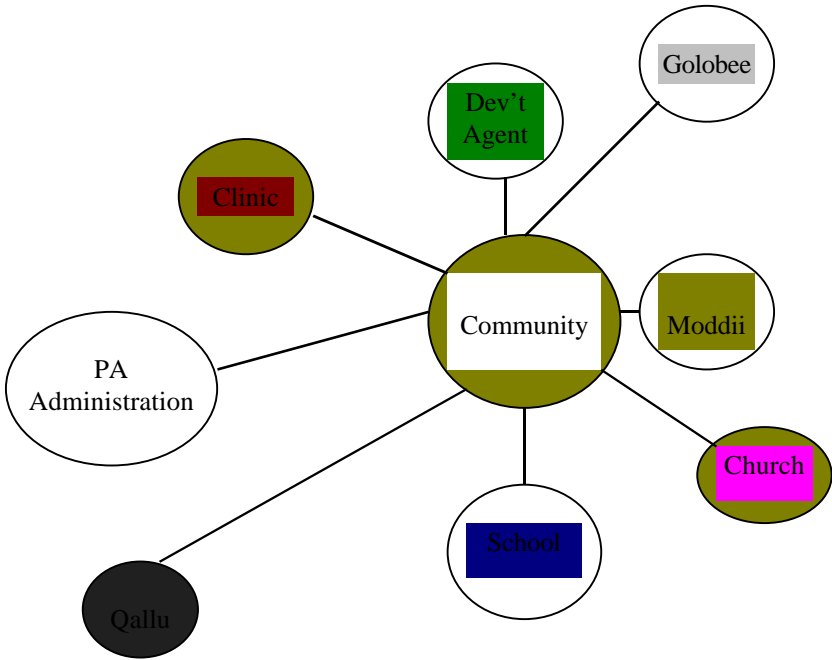
A wealth ranking exercise conducted with a group of farmers revealed that there are four categories of wealth/well-being strata in the community. These are the rich (5%), the medium rich (15%), the poor (30%) and the poorest (50%).

Figure 1: Social map of Boda Bosoqa



There are nine formal and non-formal institutions identified by farmers to exist in the PA. These are the PA administration, *qalu* (witchcraft), orthodox church, school, *moddii*, service cooperative, *golobee*, development agent and clinic. By using a Venn diagram, the people showed the degree of importance these institutions have in their life. The degree of importance is measured by the length of the line connecting a particular institution with the community. The shorter the length the more important the institution is.

Figure 2: Venn diagram of Institutions in Boda Obsoqa



3. Natural Resources

3.1. Forest

Patches of forests with indigenous tree species are found on hill sides and along rivers and streams. There is a dense forest at places called **Bakuras** and **Qilee**. Our transect route took us through this forest. The type of tree species we saw during the transect walk include juniperous procera (the most dominant spp.), olea Africana, Hg. Abyssinica (*Danissa*), acacia, *anfari*, osyris (*wato*), bamboo, etc. Some exotic tree species, such as eucalyptus and cupressus lusitanica were also seen.

Farmers ranked five selected tree species to indicate which tree they prefer for their immediate purposes, i.e., construction, fuel wood and household furniture. The selected trees are juniper, hagina Abyssinica, acacia, olea Africana & eucalyptus (see the following matrix ranking).

Matrix Ranking of Trees

CRITERIA	Juniper	Hagina Abyssinica	Acacia	Olea Africana	Eucalyptus
Construction	15	-	-	5	10
Fuel wood	12	-	9	-	9
Furniture	10	14	-	2	4
Total Score	37	14	9	7	23
Rank	A	C	D	E	B

Note: A = Most preferred, E = Least preferred

Juniper is the most preferred tree, followed by eucalyptus. They use the two species for all purposes. The least preferred is olea Africana.

The current forest cover of Boda Bosoqa is estimated to be about 20% of the total area. However, the trend shows that forest coverage of the PA has been tremendously reducing. According to the farmers of the area, the reduction is due to the rapidly increasing population with its resultant effect of settlement and farmland expansion. What is unique about this area is that the existing natural forests are being protected by the community as well as the PA administration. Nobody is allowed to cut a single tree without the consent of the PA administration and the surrounding community. One has to bring his/her case (e.g., house construction, burial or wedding ceremony) to the administration and get it approved. The role of the PA administration is to enforce the rules and regulations agreed and accepted by the community.

The people we talked to feel the forests belong to them. There is a very high sense of ownership by the community. The indicator is that these trees were not destroyed during the fall of the Dergue regime, when there was no PA administration and when law and order were completely broke down in the country. It was during that time that the then government-led plantations and other forests were devastated in Ethiopia. So, the strong community sense of ownership and management system, the fact that there was no road to Boda and, hence, there existence of no or little external influence (market) are the main factors which have helped the forest to continue existing. However, the current creation of access road to the area is a threat to the forest. This situation necessitates a strong support to strengthen the existing **community forest management system**.

Other hill side and riverine forests have become sparse at this time. They need enrichment planting with the same indigenous tree species. The other vital measure to be taken is to enclose the areas from human as well as livestock interference. However, the matter has to be discussed with the community and carefully handled. As there is a very serious shortage of grazing land, the people keep their livestock in the forest areas, particularly during the rainy season. The other reason why we should take great care about area closure is that the people are worried about the negative side effects (e.g., breeding of wild animals). The farmers expressed their worries about the fast growing population of wild life which attack their crops, such as monkeys, pigs, baboons, porcupine, warhog, etc. There is also a question of the landless people, who live on encroaching into the forest areas. So, while talking about forest development and protection, we have to also think about the side effects and devise ways on how to manage them. Locally accepted and practical solutions can possibly be sought if we closely work with the community.

3.2. Soil

Assessment of the soil types was done during the transect walk. The transect was walked by two sub-teams of the PRA team in two different lines. They both started from the same place, i.e., Tuqa *got*, and took two different directions - left and right. Sub-team A went in the south-north-east direction through Bakuras and Qilee forests, ending at Boda town. On the other hand, sub-team B went in the west-south-east direction through Bosoqa *got*, crossing Birbirsa river and ending at Loko *got* (see Figure 5 & 6 for the transect diagrams).

The type of soil observed in the area is mainly sandy loam and loam by texture, and black and red by color. In many parts of the area, and particularly at hill sides and sloppy areas, sever soil erosion was observed. In particular areas, such as Gindo hill (*randa Gindo*) big gullies are being formed. In some parts, like Tuqa *got* the team saw traditional terraces. The terraces formed from farmland boundaries. They have been turned into some kind of bench terraces. On the boundaries, along the contour, grasses have grown turning into some kind of grass strip over a period of time. Even though this was not intentionally done to conserve the soil, farmers see the structure as performing dual purpose. In addition to serving as a boundary, they appreciate that it is also keeping the fertile soil in their own

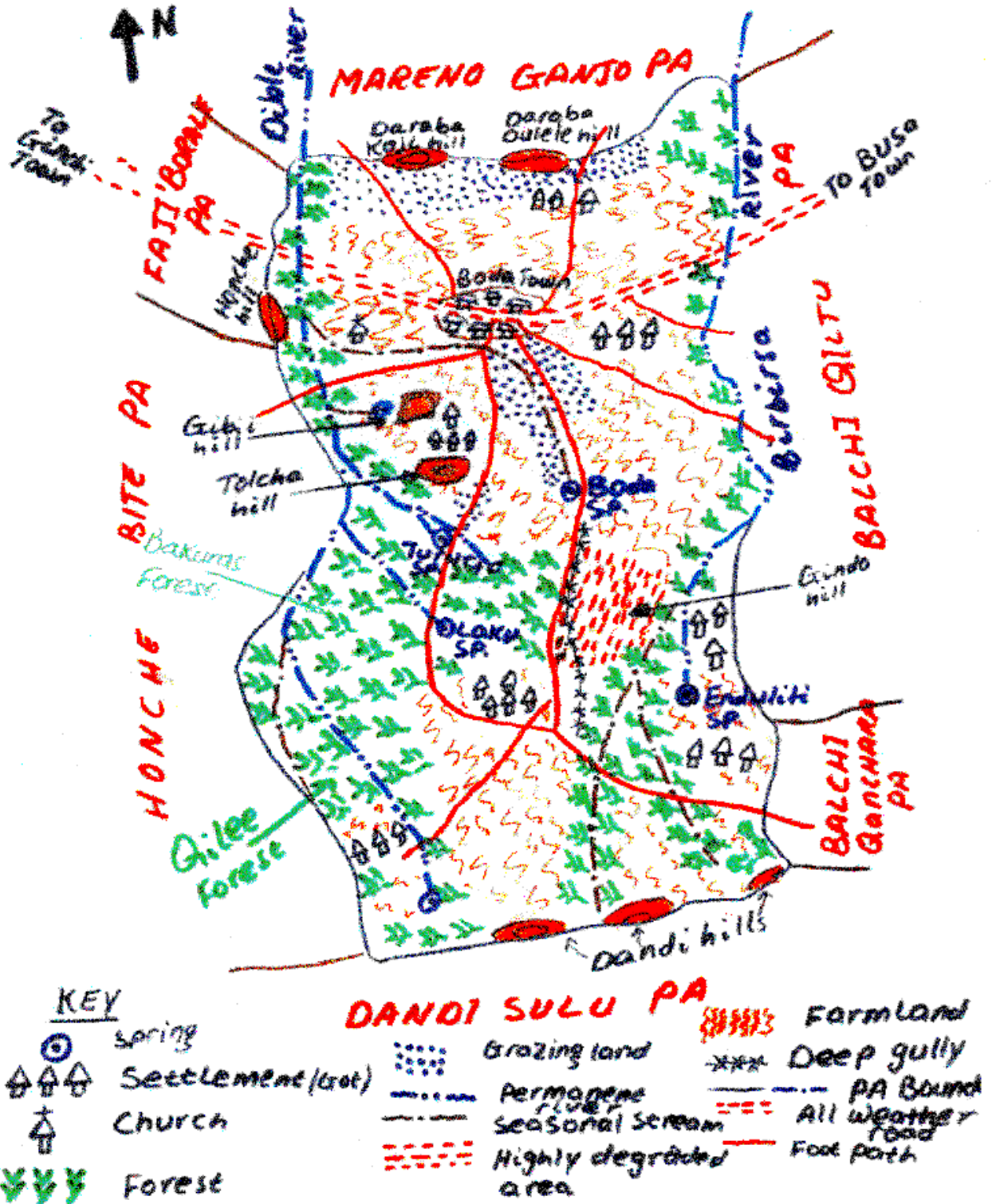
territory. This traditional practice can be taped and used for the intended community-based soil and water conservation work.

3.3. Water

The sources of water for both human and livestock drinking are springs (namely; *Tururto, Boda, Enduliti*) and rivers (namely; *Birbirsa & Qilee*). In most cases, these sources dry up during the dry season. The only dependable and permanent source is *Birbirsa* river. But, it is far away from many of the *gots* . Collection of water is the sole responsibility of women. As the local saying goes, “a man and a guest do not fetch water - *wond na engida woha ayqedam*”. So, in the dry season, the women are expected to walk for more than 3 hours to get one pot of water, which can not be enough for the family. This may mean the women would have to walk all this way everyday.

Figure 3: Resource map of Boda Bosoqa

Fig. 3: RESOURCE MAP OF BODA BOSOGA PA

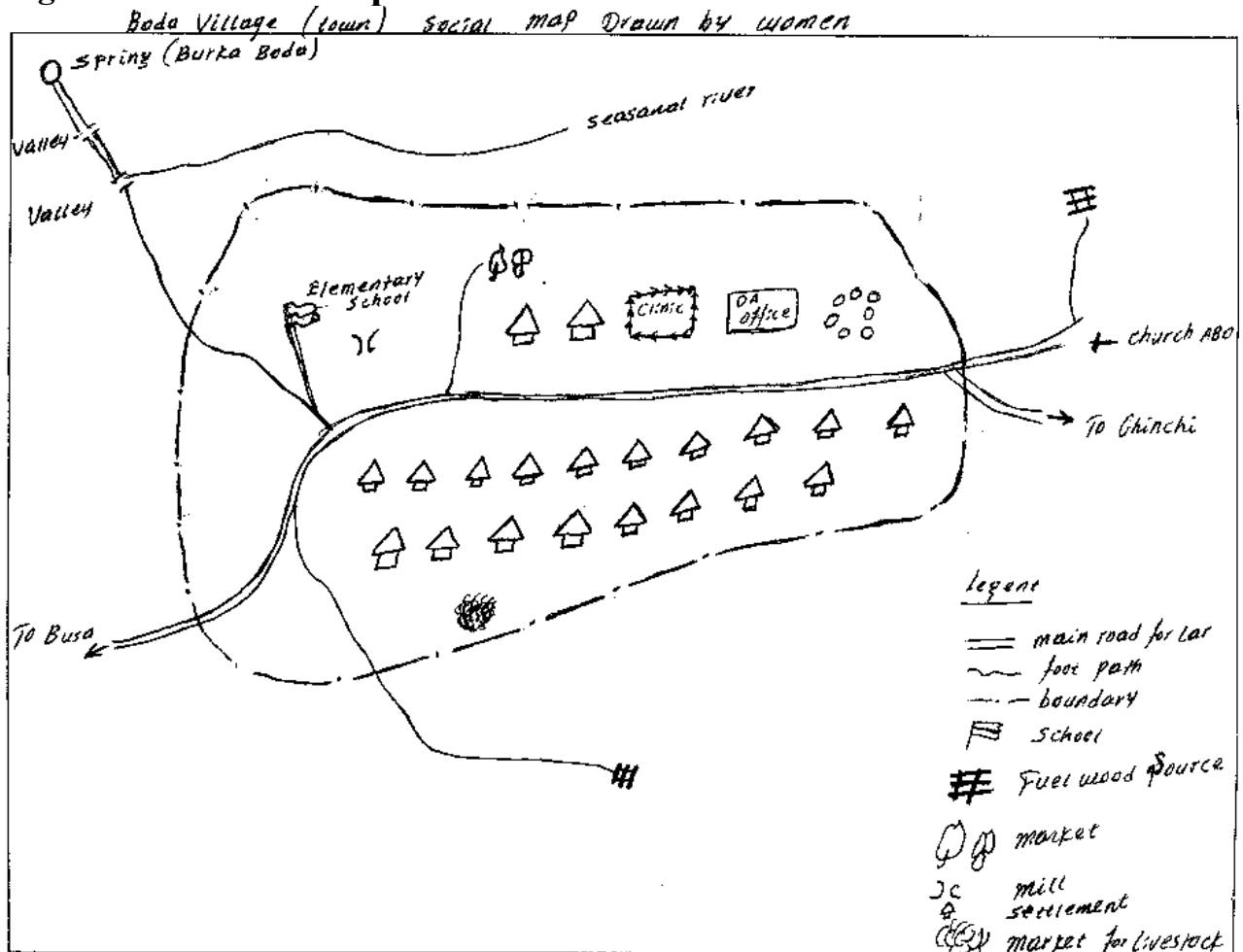


3.4. Household Energy Sources

There are three different sources of household energy. These are fuel wood, cow dung and kerosene. Fuel wood comprises the major part of the source, with 80%, cow dung makes up to 15% and kerosene takes the lowest proportion, that is, 5%. Kerosene is mainly used for light, while the other two are of multi-purpose (light, heat, cooking). Maize straws are being used as supplementary to wood.

Women are responsible for fuel wood and cow dung collection. Women from Boda town showed places where they collect fuel wood on the social map drawn by themselves (see Figure 4). During this time, they expressed that they go to far places. For example, women from Boda town said they walk up to 8 hours to get dry and good quality wood, which means going into forests far away from the town.

Figure 4: Social Map of Boda town



Five types of trees were identified by the women's group as being used for fuel wood. These are eucalyptus, carica edulis (agam), osyris (wato), acacia and juniper. In order to indicate their choices for household energy, the women ranked these trees as well as cow dung and maize straw as follows.

Preference Ranking of Energy Sources (by women)

	Eucalyptus	Carica edulis	Osyris	Acacia	Juniper	Cow dung	Maize straw	No. of counts	Rank
Eucalyptus		Eucalyptus	Eucalyptus	Eucalyptus	Eucalyptus	Eucalyptus	Eucalyptus	6	1
Carica edulis			Carica	Carica	Carica	Carica	Carica	5	2
Osyris				Osyris	Osyris	Osyris	Osyris	4	3
Adulis					Acacia	Cow dung	Acacia	2	5
Juniper						Cow dung	Maize straw	0	7
Cow dung							Cow dung	3	4
Maize Straw								1	6

3.5. Gender division of labor in the management of Trees

Activities	Women	Girls	Men	Boys
Growing Trees				
* land preparation			XXX	XX
* planting	X		XXX	XX
* protecting young trees from animals	X	XX	X	XXX
* pruning, maintaining			XXX	XX
* harvesting:				
- timber			XXX	XX
- fuel wood	XXX	XX		X
* felling			XXX	X
* processing & marketing			XXX	X
Making Decisions				
* which trees to grow			XXX	
* where			XXX	
* how to use them	XX		XXX	

Figure 5: Transect walk through Boda Bosoqa PA, South - North - East

Figure 5: Transect walk through Boda Bosoqa PA, South - North - East

	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII
Settlement	Clustered houses	Clustered houses	Scattered houses	-	-	Scattered	Clustered houses
Soil type	Sandy loam - loam (Guraacha)	Sandy loam - loam (Guraacha)	Sandy loam	Loam	Loam	Loam	Sandy loam
Erosion	Moderate	Gully	Moderate (Gully)	Moderate	Slight	Slight	Sever
Land use	Farmland	Farm & Grazing land	Forest & Grazing land	Forest	Forest & farm (encroachment into the forest)	Grazing & farmland	Stream & stream side farm
Water source	-	-	-	Stream	Stream (seasonal) Spring (<i>Tururto</i>)	-	Stream (Seasonal)
Vegetation	Hg. Abysinia, <i>danisa</i> , <i>Anfare</i> , Juniperous procera, Eg. Globulos (in farmland & homestead)	Juniperous procera, Eg. Globulos, <i>Anfare</i> (in farmland & homestead)	Juniperous procera, Acc. Abysinica, Erica Arabica, <i>Agamsa</i> , <i>Inqoxo</i> , <i>Wato</i> , <i>Kombolcha</i> (in farmland, homestead & forest)	Juniperous procera, Acc. Abysinica, Erica Arabica, <i>Hindh</i> , <i>Qawisa</i> , <i>Solee</i> , <i>Xaxesa</i> , <i>Agamsa</i> , <i>Inqoxo</i> ➔ Dense forest	Juniperous procera, Acc. Abysinica, Erica Arabica, <i>Hindh</i> , <i>Qawisa</i> , <i>Solee</i> , <i>Xaxesa</i> , <i>Agamsa</i> , <i>Inqoxo</i> , <i>Renji</i> , <i>Gora</i> ➔ Dense forest	Eucalyptus (around homestead)	Eucalyptus, Juniperous procera (around homestead)
Crops	Wheat, <i>enset</i> , barley & bean	Wheat, <i>enset</i> , & barley	-	-	<i>Teff</i> , wheat	<i>Teff</i> , wheat, <i>Enset</i>	Barley, wheat
Livestock	Cattle, horse	Cattle, sheep, donkey	-	-	Cattle	Cattle, donkey, horse	donkey
Feed	Grazing land, maize straw	Grazing land, maize straw	-	-	Grazing land	Grazing land, maize straw	Grazing land, maize straw
Problems	No water source, soil erosion, <i>enset</i> disease, wag on barley & wheat	No water source, soil erosion, <i>enset</i> disease, wag on barley & wheat	Soil erosion	-	-	-	Soil erosion
Opportunities	Traditional soil conservation practice, crop production	Grass land improvement, enrichment planting, Community forest management practice,	Community forest management practice, Bee keeping enrichment planting, Grass land improvement	Community forest management practice, Bee keeping,	Enrichment planting	Grass land improvement	

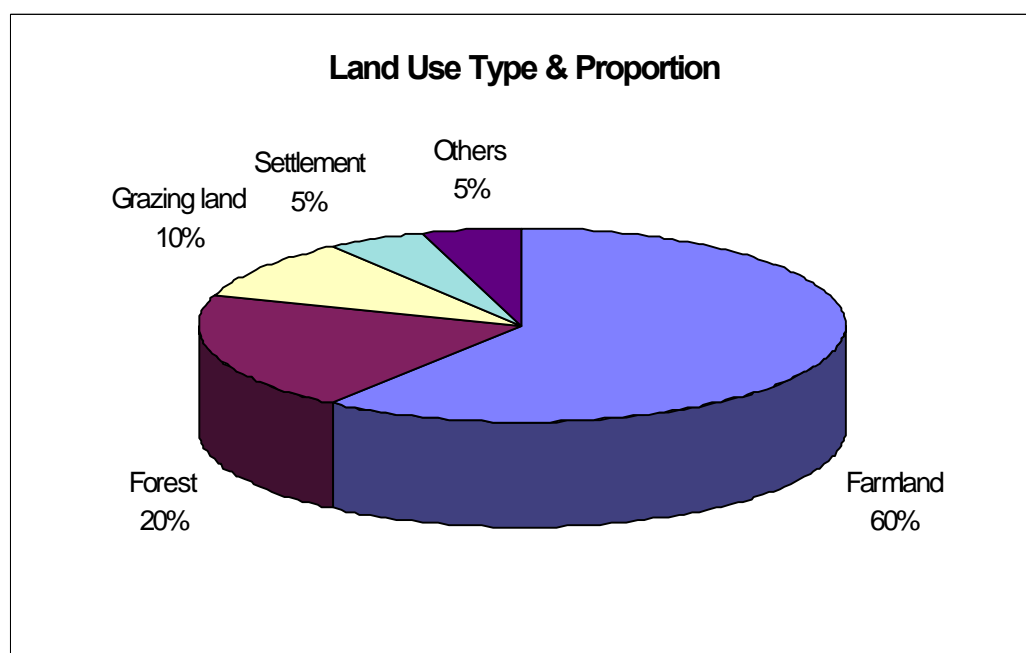
Figure 6: Transect walk through Boda Bosoqa PA, West - South East

Figure 6: Transect walk through Boda Bosoqa PA, West - South East

	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII
Settlement	Clustered houses	Clustered houses	Clustered houses	Scattered houses	Clustered houses	-	-	Scattered
Soil type	Red	Red	Red-brown	Red	Red	Red	Red	Red
Erosion	Moderate	Sever	Sever	Sever	Moderate	Gully	Gully	Gully
Land use	Farmland	Farmland, small Grazing land, reverian forest	Farmland, grass land, forest	Farm & grazing land	Farmland, reverian forest	Grazing & farmland, juniper ticket, secondary forest	Grazing & farmland	Grazing land, farmland, bush land
Water source	-	-	-	Stream (seasonal)	-	River	Stream (Seasonal)	-
Vegetation	Dombeya, Hg, Abysinia, Anfare, Juniperous procera, Eg. Globulos, Anfar, Bamboo	Juniperous procera, Eg. Globulos, Erica Arabica, Robus, Olea, Hapenia, Bersania,	Juniperous procera, Hapenia,	Bamboo, Dombeya, Ertrena, Juniperous procera, Eucalyptus	Eucalyptus, Acacia, Podo, Myrica, Veronica, Bamboo	Eucalyptus, podo, Myrica, Olea, Juniperous, Carica edulis	Eucalyptus, Juniperous procera, Acacia	Eucalyptus, Acacia, Cupresus lustanica
Crops	Wheat, <i>enset</i> , barley	Wheat, <i>enset</i> , & barley	Wheat, <i>enset</i> , & barley	Wheat, flax & barley	Wheat, <i>enset</i> , barley, sugar cane, pea	Teff, wheat, <i>Enset</i>	Teff, wheat, <i>Enset</i> , Barley	Teff, wheat, <i>Enset</i> , Barley
Livestock	Cattle, horse, sheep, goat, donkey	Cattle	Cattle, horse, sheep, goat	Cattle, donkey, goat	Cattle, donkey, horse	Cattle	Cattle, donkey, sheep	Cattle, sheep, goat
Feed	Anfar	Grass, Xosign	Grass (<i>sindedo</i>)	Grass (<i>sindedo</i>)	Grass	Grass	Grass	Grass
Problems	<i>Enset</i> disease, wheat & barley disease, frost, shortage of grazing land, shortage of water	Shortage of water, soil erosion, deforestation	Erosion, weed, shortage of farm & grazing land, shortage of water	Gully erosion, damage to indigenous trees	Erosion, water shortage	Gully erosion	Gully erosion	Gully erosion
Opportunities	Bamboo development & marketing, introduction of fodder trees, improvement on <i>enset</i> production	Reforestation, improvement on <i>enset</i> production	<i>Sindedo</i> for grass strip, introduction of fodder trees	Reforestation, wood carving, Bamboo development	Improvement on <i>enset</i> production, improvement on sugar cane production	Improvement on <i>enset</i> production, gully control, tree planting	Improvement on <i>enset</i> production, production, gully control, tree planting	Improvement on <i>enset</i> production, production, gully control, tree planting

4. Land Use & Land Tenure System

Like in any other rural areas of the country, land in Boda Bosoqa PA is being used mainly for growing crops, livestock grazing, settlement and forest. In addition to this, there are some areas which are categorized as **others** , including unused land due to erosion/gullies, roads/foot paths, etc. The proportion of land use in the PA is shown in the following pie chart.

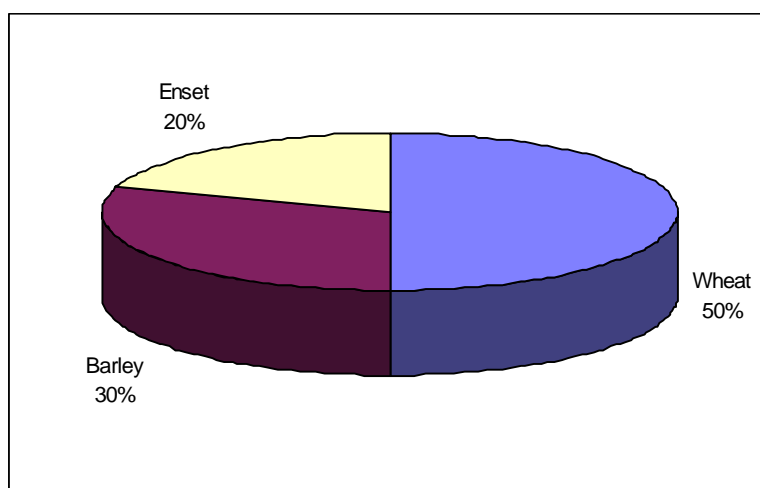


The forest area is communally owned, whereas farmland, grazing land and settlement areas (homesteads) are under the “ownership” of individual farmers. The farmers who have land are those who were given with full user right during the Dergue land redistribution. These people hold 2 - 4 hectare of land. Those who were too young to get their share during that time are currently the landless. They account for about one third of the population. These landless people migrate to places like Jimma and Arsi to look for employment. The common employment is daily labor in agricultural activities - in Jimma planting & harvesting coffee and in Arsi weeding & harvesting of cereal crops. Labor out migration rate is high in the months of June, July, September and October. Other coping mechanisms these people use are sharecropping and encroachment into the community forest.

5. Agricultural Production

5.1. Crop production

The type of crops grown in the PA are *enset*, barley, wheat, *teff*, beans, peas, maize, potato and hopes (*gesho*). The main and unavoidable ones, however, are *enset*, barley and wheat. Proportion of land share for these crops is 20%, 30% and 50%, respectively.



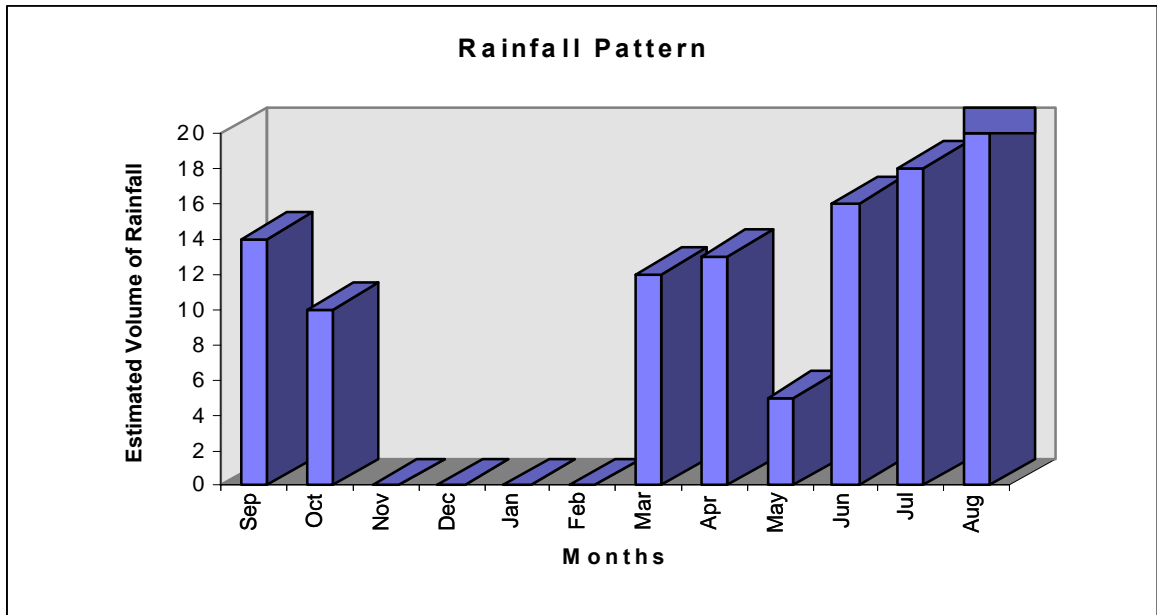
According to information obtained from farmers, there have been crop changes over the last years. Some crops, such as *teff* and maize have been introduced recently, i.e., during the Dergue regime. The trend is that these newly introduced crops are taking over the place of wheat and barley. The changes are attributed to climatic change. The area was colder than at present. Farmers describe the current situation as their area is turning into “desert”. They think this climatic change has happened because of the destruction of the dense forest, which used to regulate the local climate.

Erratic rainfall; soil erosion, hence, loss of soil fertility; and crop diseases, specially wag & rust on wheat & barley, bacterial wilt on *enset*, are the major constraining factors to crop production.

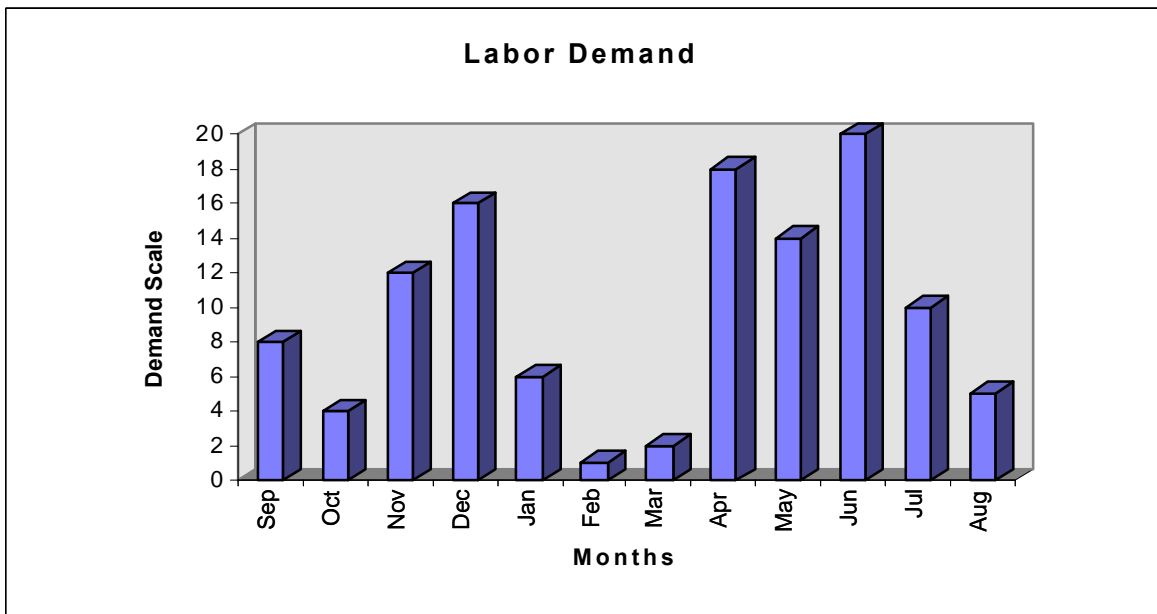
5.1.1 Seasonality Analysis

Agricultural Activities

In rural areas, agricultural activities vary with varying seasons. More than anything else, these activities depend on the coming or going of rainfall. These days, the pattern of rainfall distribution is changing. Under normal condition, rainfall pattern in Boda Bosoqa should have looked like the following chart .

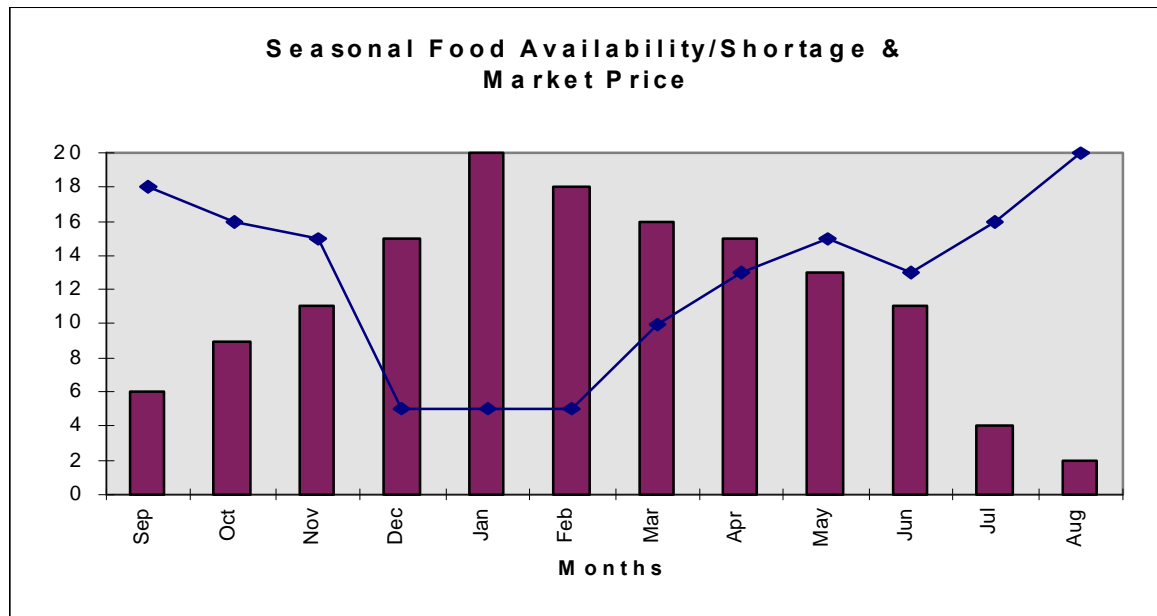


Farmers showed their agricultural activities by breaking into three major ones; i.e., land preparation, planting and harvesting. Land preparation takes place just before and after rain, i.e., April/may and August/October, respectively. In April/May land is prepared for immediate planting in June and July (rainy season). In August/October, they prepare fallow land for next year’s planting season. September is a month in which weeding is done. Harvesting starts in November, going up to the first weeks of January. As can be seen from the following chart, local labor demand is high when these activities take place, particularly during planting and harvesting.



Food Availability & Crop price

Discussion about periods of food availability and food shortage was held with groups of women. The group indicated that food is sufficiently available between December and May.



There is a sharp decrease in crop price during and just after harvest (December - February). Apart from the availability of crops to bring out to markets, the main forcing factor is that land tax payment and fertilizer loan repayment is arranged by the government to happen during this time. As farmers do not have any other major source of cash, they are forced to bring their crops to markets in abundance. As almost all farmers make their freshly harvested crops available to markets, there happens to be excessively more supply than demand.

In the contrary, crop price becomes high during planting and before harvest (July - October). This is also the time when farmers suffer from serious shortage of food. Potato and *enset* come in to fill the yawning gap.

Food preferences:

The same group of women were asked to tell us which type of crop they would prefer most, next, ... last for household food consumption. They showed their preferences in the following manner, by using a preference ranking method.

Preference Ranking of crops (by women)

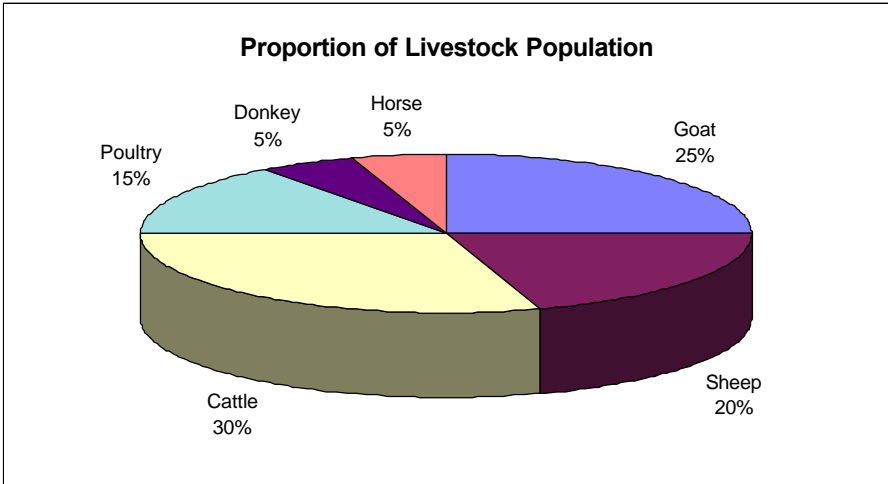
	<i>Enset</i>	Wheat	Barley	<i>Teff</i>	Maize	Potato	No. of counts	Rank
<i>Enset</i>		<i>Enset</i>	<i>Enset</i>	<i>Enset</i>	<i>Enset</i>	<i>Enset</i>	5	1
Wheat			Barley	Barley	Barley	Barley	4	2
Barley				Wheat	Wheat	Wheat	3	3
<i>Teff</i>					<i>Teff</i>	<i>Teff</i>	2	4
Maize						Maize	1	5
Potato							0	6

Out of these six types of crops, *enset* is the most preferred one for food consumption. The main reason is that it supports families when there is food shortage, because it is drought resistant and can be stored live. Families fall back on *enset* when their cereal crops fail or when they run out of stock. Over the last three to four years, there has been a continued crop failure due to untimely rainfall, snow, frost and wag (yellow rest).

So, the women who ranked the crops value *enset* as the most reliable crop available to them. However, they expressed that its survival is being threatened by the prevailing disease, bacterial wilt. If the situation continues like this, the farmers are worried that they might lose the crop at all in a very short period of time.

5.2. Livestock production

The types of livestock the people keep are cattle, goats, sheep, donkeys and horses. Goat rearing is the recent phenomenon. They started practicing it due to climatic change and increase in temperature/heat. Now a days, the population of goats is outnumbering that of sheep because of: climatic change, the prevailing sheep disease and shortage of grazing land. Goats can live on browsing shrubs and bushes.



5.3. Gender division of labor in Agricultural Activities

Activity	Women	Girls	Men	Boys
1. Growing crops:				
* land preparation/ploughing			XXX	XX
* planting			XXX	XX
* weeding	XXX	X	XXX	XX
* applying fertilizer, pesticides			XXX	XX
* bird scaring	X	XX		XXX
* protecting from wild life (pig, etc.)			XXX	XX
* harvesting	X		XXX	X
* transporting harvest from field	XX	X	XXX	X
* processing/thrashing	X		XXX	X
* marketing	XXX		XX	
* buying seeds and inputs	X		XXX	
* gardening			XXX	
2. Looking after cattle				
* supervision of grazing	X		X	XXX
* watering			XX	XXX
* tending to sick animals	XXX		XX	
* milking	XXX	XX		
* processing & marketing of milks	XXX	XX		
* processing/marketing of skins & hides			XXX	XX
* selling & buying of animals			XXX	
3 Making Decisions				
Crops:				
- which crops to grow	X		XXX	
- where	X		XXX	
- when to plant & harvest			XXX	
- marketing	XX		XXX	
Livestock:				
- how to manage			XXX	
- what to buy/sell	XX		XXX	
- when to buy/sell	XX			
- milk/butter to sell/use for household	XXX			

Fill in: XXX = Predominantly Responsible, XX = Contributing, X = Occasional Contribution

6. Household Income Sources & Expenditures

Agriculture is the main income source for people in Boda Bosoqa. Agricultural income sources include sale of cereal crops, *enset*, livestock and livestock products, with the exception of milk & cheese - *ayib*. Selling milk or *ayib* is a taboo in the locality. Non agricultural activities, such as petty trading, pottery, wood-carving, mat and hat weaving, blacksmith/metal work, tailoring and daily labor serve as supplementary income sources for the households who have land. Whereas, these activities are the main and the only income sources for those who do not have land.

Household expenditures include payment of land tax, fertilizer loan repayment, clothing, purchase of spices and coffee and social event/membership payments (e.g., *edir*).

7. Community Action Planning Workshop

7.1. Process

On the last day of the PRA exercise, the PRA Team held a workshop with members of the PA community, with the main objective to prepare *Community Action Plan (CAP)*. The workshop was attended by male and female farmers who came from the thirteen *gots* (villages) of the PA. The participants were carefully selected to represent all social groups, such as potters, tanners, wood carvers, female headed households, tailors, farmers with land, land less and women with husbands. In total, there were 74 participants, 41 male and 33 female.

The workshop was opened with prayer according to the Oromo tradition. The prayer was led by three elderly persons. Subsequently, the PRA/Planning Team Leader thanked the participants for coming to the workshop. He then introduced the Team members, objectives and process of the PRA study and purpose and agenda of the CAP workshop.

Going into agenda of the workshop, the first part, i.e., presentation of findings of the study, was dealt with. In this part, maps and summary report of resources and problems of the area, as seen by the team, were presented to the participants. Maps of the PA were presented by three farmers on behalf of the group of farmers who drew the maps.

The resource map of the PA was presented by Obbo Dandana Nagara, the social map was presented by Obbo Kuma Gina and the other social map drawn by women was presented by a lady, Adde Atsedu Magarsa. Following this, members of the PRA Team presented a summary of major problems and resources of the area identified during the study.

Afterwards, participants were divided into three small groups (2 male, 1 female groups) to analyze the identified problems (i.e., agree if they are their real problems in order to complete the list and prioritize them), suggest solutions for the prioritized problems and draw action plan. After dealing with all of these issues, each group presented the results to the plenary and debated on the issues. The three results were pooled together and put into one as a final output of the workshop. They came up with a list of fifteen prioritized problems, along with proposed solutions and mechanisms of implementation, specially, the role the community members can play during and after implementation.

7.2. List of prioritized problems

- 1) Shortage of drinking water supply, both for human and livestock
- 2) Soil erosion
- 3) Deforestation
- 4) Crop pests and diseases (serious ones are: bacterial wilt on *enset*, rust damaging wheat & barley, weevils & termites attacking at storage)
- 5) Livestock disease (serious on sheep)
- 6) Shortage of farmland
- 7) Shortage of grazing land
- 8) High price of fertilizer
- 9) Low household income
- 10) Shortage of fuel wood (more affected are people living in Boda town)
- 11) Erratic rainfall distribution
- 12) Absence of road (Boda town → Bosoqa & Tuqa villages → Dandi Sulu PA)
- 13) Lack of electricity for Boda town
- 14) Shortage of budget to fulfill school facility (e.g., benches, desks, black board, library)

8. COMMUNITY ACTION PLAN (CAP) OF BODA BOSOQA PA

No	Problems	What	Why	Where	When	How	Who	
							Benefits	Does what
1	Scarcity and impurity of drinking water supply	1) Spring development 2) Bore hole	<ul style="list-style-type: none"> to supply sufficient potable water to reduce work load on women 	<ul style="list-style-type: none"> Development of Induliti, Tururto & Shelsheli springs Bore hold construction for Boda 	Study: Before March 15 Implementation: To be decided in consultation with DoWMERD	<ul style="list-style-type: none"> Technical survey to be conducted by DoWMERD, to verify the feasibility of the proposed solutions Negotiation and entering an agreement with DoWMERD to do the study & implement later 	Female and male residents of the PA	LUPO: finance and technical support DoA / OoA: facilitate study and implementation DoWMERD: feasibility study & construction Community: labor & local material contribution, and responsible for later management
2	Soil erosion	1. Construction of bunds, check dams, etc. 2. Planning grass strips & other bund stabilizing plants 3. Tree planing	<ul style="list-style-type: none"> To reduce soil loss To increase soil fertility To increase crop production 	On hillsides & sloppy farmlands (exact sites are to be identified through technical study)	Study: March 15 to April 16 Implementation: To be decided after study	<ul style="list-style-type: none"> Technical study is to be done by DoA & OoA Implementation will be micro-catchment based Highly degraded micro-catchments, with interested people will be given priority Farmers will be organized into groups 	Farmers with land	LUPO: Finance & technical support DoA / OoA: Technical study & implementation of physical & biological conservation measures Community: Labor and local material contribution, and responsible for later management
3	Deforestation	1. Provision of support to strengthen the existing local forest management system 2. Enrichment tree planting in areas where vegetation has become sparse as well as on already degraded hilly areas 3. Promotion of wood-lots 4. Area closure 5. Nursery establishment	<ul style="list-style-type: none"> To capitalize on the existing forest management practice; which is community-based, effective & sustainable To reduce soil erosion & to rehabilitate the environment To promote planned resource utilisation 	Qilee forest, Barukas forest Other places to be identified during the technical survey	Study: March 15 to April 15 Implementation: To be decided afterwards	<ul style="list-style-type: none"> Technical study is to be done by DoA & OoA The kind of support which the community need to strengthen their management system is to be assessed as part of the technical study Specific site identification (for closure, tree planting, nursery, etc.) would be part of the technical study Negotiation with the community & other partners (esp. for area closure) needs to start from the outset 	The community	LUPO: Finance & technical support DoA / OoA: Technical study & implementation Community: Continue to protect existing forest. Cooperate with the study team, and implement the result in the study
4	Crop pest & disease	1. Supply of chemicals or looking into other means to reduce onset disease 2. Use of improved wheat variety which can resist rust 3. Improved storage & use of pesticides	<ul style="list-style-type: none"> To increase crop yield To reduce post harvest loss 	In the PA	Ongoing	<ul style="list-style-type: none"> Contacting research institutions & others to see if there is any study done on bacterial wilt & solutions found Changing the present wheat variety (Russia), which farmers are not happy with Post harvest crop management to be addressed as part of the extension program 	The Community	LUPO & DoA: Contact research & other institutions for onset disease DoA / OoA: Address the issue of input supply & storage improvement
5	Livestock disease	Improved veterinary service	To improve livestock health	In the PA	All year round		The Community	DoA / OoA: Implement

								Who
6	Shortage of farmland	1. Creation of employment opportunities, such as bee keeping, poultry, fattening, etc. 2. Proper utilization of existing land 3. SWC 4. Redistribution of land	<ul style="list-style-type: none"> To reduce dependence on land To maximize land productivity To increase arable land To share land for the landless 	In the PA	# 1 & 2 from now onwards # 4 unknown	#1, Provision of credit and training #2, Application of improved farming practices #3, SWC on existing & potential farmland #4 ??? * Land redistribution is beyond the scope of LUPO	The community esp. those who do not have land	LUPO: Finance and technical support DoA / OoA: Implement
7	Shortage of grazing land	Provision of forage seeds & seedlings	To increase feed availability and, hence, increase livestock productivity			<ul style="list-style-type: none"> Multiplication & distribution of seeds & seedlings Awareness creation through training & demonstration 	The community	LUPO: finance and technical support DoA / OoA: facilitate implementation
8	Fertilizer price is too high to afford	1. Reduce fertilizer price 2. Stabilize market price, so that farmers sell their produce at reasonable price 3. Increased use of manure & fallow system by farmers	<ul style="list-style-type: none"> To increase farmers' purchasing power To reduce use of artificial fertilizer 	In the PA	a) before planting season b) At harvest, which coincides with repayment time		Farmers with land	Farmers expect the government to look into the possibility of revising fertilizer price and to stabilize market price, in order to protect farmers from selling their produce at a very low price at the time of harvest
9	Low household income	Provision of credit	To diversify household income sources	In the PA		Group approach	The poor	LUPO: finance & technical support DoA / OoA: facilitate implementation
10	Shortage of fuel wood	1. Promotion of individual woodlots 2. Promotion of fuel (energy) saving technology	<ul style="list-style-type: none"> To reduce workload on women To save cow dung for manure To reduce deforestation To avail alternative construction / fuel technology 	In the PA		<ul style="list-style-type: none"> Training Technology identification, testing and demonstration Seedling production and planting 	The community	LUPO: finance and technical support DoA / OoA: facilitate implementation
11	Climatic change & erratic rainfall	Protecting the forest to contribute to environmental balance ??????						
12	Lack of access road	Road construction	To improve access to social services (clinic, school, grinding mill, market) found in Boda Town	From Boda town to Dendi Sulu		External funding needs to be sought	People of Tuka & Bosoka gots and Dandi Sulu & Dandi Mumicha PAs	LUPO & DoA/OoA: help the community in seeking fund Community: seek fund, contribute labor, local materials & cash
13	Lack of electricity for Boda town	Provision of electric light ?????						
14	Shortage of budget to fulfill school facility	Subsidy to augment the budget ?????						