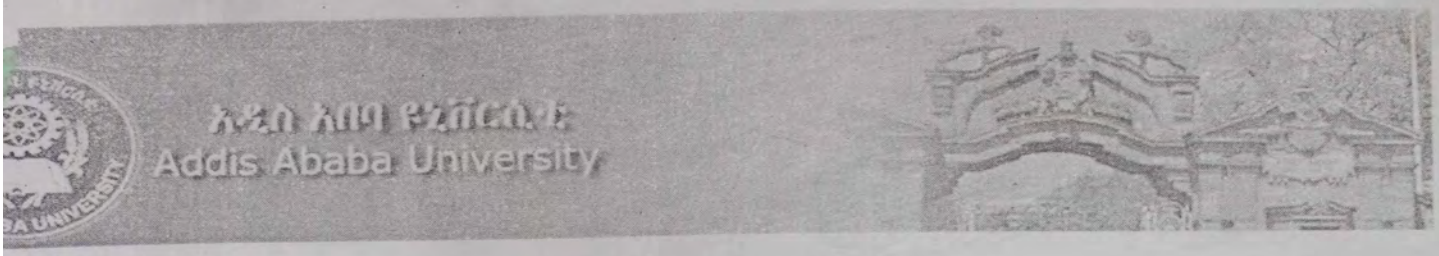

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Partial Fulfillment of the Requirements of MA Degree in Environment and Development Studies

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ABSTRACT

*The objective of this study is to assess local people participation in the various stages of the project cycle of afforestation project (Identification, Planning, Implementation and Monitoring and Evaluation) in the case of Sekota adjoining woreda Wolehe kebele Addissan afforestation project site in Wag-himira zone Amhara region. Critical analysis of community participation in this stage of the project cycle of afforestation project was done. Cross sectional data were collected from 152 respondents who were selected from a sample population of 1,524 households using systematic random sampling technique. Data were collected using survey questionnaire, focus group discussions (FGDs) and key informant interviews and were analysed using quantitative and qualitative techniques. It was concluded that there was low community participation in the project identification, (with a total of non participants, need assessment (*93.5%), *criteria for site selection (*96.9%), *site selection (*98.7%)), *Planning (non participants* 51.3 %), *and monitoring and evaluation stages of the afforestation project (non-participants* 98.2 %). *High community participation was only observed in the project implementation stage (*53.9%). *It was recommended that from overall impression, there was not clear cut legislation about the local community's ownership right to directly gain financial benefits from the grown forest trees. Accordingly it is recommended that there should be a clear cut legislation which enables the community to properly use the resource in the near future with a view to minimizing possibly predictable conflicting interest there on . Therefore by of legislations recommended above due awareness in the society as to the use of afforestation in genera, and the problems associated with afforestation in particular, should earlier be alleviated before the afforestation program gets ripe for use. As the same time communities at the grass roots level should take a major part in the overall of project activity. There is also need to carry out a study on tree species that are compatible to the environment. Also it is indicated that there are traditional administrative setups in the community for forest conservation practices like area enclosures"*kilkil". *If these traditional practices however are integrated with modern afforestation efforts, it will greatly support the conservation of forestry programs in site. These results also can be used by policymakers* to *design customized program interventions that could make the afforstation project in the woreda successful. The research finally suggests that there should be appropriate cross check by going to the site in person as to whether the seedlings are properly wedged and survived so that there will be pragmatic correspondence to the program plan at hand.*

Key words: - Program, Commitment, Community, Afforestation, Participation, Sekota, Ethiopia

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Acronyms

APO	Asian Productivity Organization
CBO	Community Based Organizations
CFD	Community Forestry Department
DA	Development Agent
EFAP	Ethiopian Forestry Action Program.
EPRDF	Ethiopian People's Revolutionary Democratic Front
FAO	Food and Agriculture Organization
F G D	Focus Group Discussion
HPP	High Potential Perennial Zone
ICRAF	International Center for Research in Agroforestry
MoARD	Ministry of Agriculture and Rural Development
MoFED	Ministry of Finance and Economic Development
NTFP	Non-timber Forest Products
ORDA	Organization for Rehabilitation and Development in Amhara
UK	United Kingdom
UNDP	United Nations Development Program
UNEP	United Nations Environment Programme
UNCDF	United Nations Capital Development Fund
UNSO	United Nations Statistical Office
USAID	United States Agency for International Development
WARDO	Woreda Agricultural and Rural Development Office
WBISPP	Woody Biomass Inventory and Strategic Planning Project
WCED	World Commission on Environment and Development

CHAPTER ONE
INTRODUCTION

1.1 Background

Ethiopia owns diverse vegetation resources, from tropical rain and cloud forests in the southwest and on the mountains to the desert scrubs in the east and north east and parkland agroforestry on the central plateau (Demel *et al.*, 2010). The large terrestrial land surface with biologically productive climate and soil also presents the country with a huge forestry development potential. The forest resources are an important endowment of the country. They contribute production, protection and conservation functions in the form of:"

- Fertile croplands to sustain agricultural productivity, the mainstay of the country's economy;
- Natural rangelands (including forest grazing) to sustain one of the largest national livestock populations in the world;
- Biomass for energy;
- Diverse non-wood forest products that contribute to subsistence and
- Cash needs of millions of rural and urban households;
- Wood and other building materials; and
- Herbal medicines to safeguard human and livestock health" (Mulugeta, 2008:pp13).

The natural vegetation also provides diverse ecosystem services such as protection of soil from erosion, regulation of climate and water flow, protection of watersheds, conservation of biodiversity and storage of large carbon stocks (Tsegaye, 2008).

Ethiopia's forests and other types of vegetation have also been subject to intense human use for millennia, going back at least 5000 years. Ethiopia harbours two of the 34 global biodiversity hotspots, namely the Eastern Afromontane and Horn of Africa biodiversity hotspots. The forest resources, though rich, are severely threatened by degradation. This suggests that past and present management efforts are far from being sufficient to achieve sustainable conservation and use of the country's biodiversity, although such sustainable management is crucial for the country's population that relies on this stock of natural resources for the bulk of its economic activities. Overall, vegetation resources in Ethiopia are mined rather than managed and their degradation has reached a critical stage.

The current rate of deforestation is estimated to be 160,000 to 200,000 ha per year. It is estimated that fertile topsoil is lost at a rate of one billion cubic meters per year (FAO, 1981; UNEP, 1983, Constable, 1985, Kuru, 1990, Yirdaw, 1996), resulting in massive environmental degradation and constituting a serious threat to sustainable agriculture and forestry. To reduce these problems, rural afforestation and conservation programs on farms and community lands have been practiced in Ethiopia for the past three decades. The Ministry of Agriculture, in collaboration with national and international organizations, has made efforts to implement agroforestry and community tree planting programs. Rural tree planting on farm and community lands was identified as the most important topic of international development. The United Nation Development Program, in consultation with the Food and Agricultural Organization (FAO), has been helping Ethiopia to promote tree planting and soil conservation programs on the highlands of Ethiopia since the early 1970s (FAO, 1985).

The objectives of these activities were as follows: 1) to meet the needs of fuelwood, construction materials and fodder from trees planted outside forests, 2) to reduce degradation of soil resources and improve productivity of agricultural lands and 3) to reduce the pressure from the remaining natural forests and to conserve biodiversity. Additional research on agroforestry and transfer of technology has been conducted by the International Center for Research in Agroforestry (ICRAF), in collaboration with National Research and Development Institutions on the East African Highlands since the mid 1970s (Nair, 1990, Hoekstra et al., 1990).

The primary objectives of this collaborative research were to identify potential agroforestry practices and research needs using "Diagnosis and Design" methodology developed by ICRAF. As part of this effort, a blueprint for "Agroforestry potential and research needs for the Ethiopia Highlands" was prepared by the Technical Committee for Agroforestry in Ethiopia, in collaboration with ICRAF scientists. Based on altitude, topography, and intensity of land-use systems, the following agroforestry practices were identified for the Ethiopian Highlands: alley cropping, trees in home gardens, fodder tree planting, trees as

living fences, farm boundary and road side planting, woodlots and agroforests, trees on contour bands, and gully planting (Hoekstra et al., 1990).

Yet despite the large commitments of scarce resources by both governmental and non-governmental agencies, success in tree planting and conservation has been limited. The current tree-planting practices result in less than 20% tree survival on the national average (Uibrig, 1989; Gamach, 1990). These problems are one of several major obstacles hindering the development of forestry programs in Ethiopia.

Project approaches to development remain a vital instrument by government and development agencies to reach and assist poor communities in the developing world. Development interventions in the past have tended to focus on resource and knowledge transfer to beneficiary communities through the 'top-down' approach. In the 'top-down' approach, decisions are made at the top and then passed to lower levels for adoption by the beneficiaries. However, several decades of development funding have demonstrated the failures of the 'top-down' approaches to reach and benefit the rural poor. A possible reason for these failures is attributed to the lack of beneficiary participation in identification, planning, implementation and monitoring and evaluation of development projects (FAO, 1991; Cernea and Ayse, 1997; Blackman, 2003). Shah *et al*, (2000) cited in APO, (2002) notes that many projects in the past have been designed and implemented in a 'top-down' fashion, with little or no real participation of the supposed 'beneficiaries'.
Even when an element of 'participation' is built into projects, it is all too often largely in terms of local investment of labor and not in real decision-making. Beneficiary communities are only informed after plans have been made and that this is done. Through formal meetings where the officers justify their plans but modification is not considered. The purpose of this study was to critically analyze community participation in the various stages of the project cycle of afforestation projects in Sekota adjoing worda Wolehe kebele Addssan afforestation program i.e. project identification, planning, implementation and monitoring and evaluation.

1.2 The Statement of Problem

The Highlands in wag-himirea zone have been heavily exploited and currently show only remnants of the previous forest. Regional efforts to plant trees have not been accompanied by incentives to encourage tree plantation at community level at large. The zonal ARDO, WARDO, KARDOs and ORDA (a local NGO) have a plan to implement a project with special emphasis on afforestation in Sekota adjoining woreda Wolehe kebele a site called Addisan afforestgation project with close involvement of the local peoples. The main aim of the afforestation project is to increases the total forest coverage by 1.2% through applying best experience and mode of implementation from 5.6% which is the currently forest coverage of Wag-himira zone, by the coming 5 years (2010/11-2014/15 G.C)

Therefore, the zone has an ultimate goal to have 12.57-13.85% in 2015 G.C. On other hand, the afforestation project has an aim of controlling environmental degradation which has recently attracted both governmental and nongovernmental organizations dealing with it. The area has been identified as one of the main sources for sedimentation and fertile soil erosion accompanied by higher volume of sediment and soil run in to different artificial lake, and natural such as Tekeza, Trari and other large number of local rivers. As a result, local, regional and international organization such as Organization for Rehabilitation and Development in Amhara (*ORDA*), Save the Children UK-SEKOTA, and Action-fam Ethiopia initiated afforestation interventions to address this degradation in cooperation with the government.

The Expected outcome of this project is to maintain and improve the productivity of agricultural land as well as sustain the ecological balance. Generally forests and agroforestry systems are particularly important for provision of forest based products, climate modification and improvement of soil fertility (SAWARDO, 2010). Moreover, planting trees is currently seen as an alternative livelihood strategy, particularly in drier areas, Wag-himira zone , where drought is frequent, soils are less fertile, and use of fertilizers and improved seeds is risky and less profitable (Pender et al. 2006). Tree planting has also significantly contributed to the production of non-timber forest products (NTFPs), such as honey and beeswax production. Harvesting honey and beeswax from forests have been a long-time, indigenous tradition in Ethiopia (Hartmann 2004). Ethiopia ranks fourth in the world in beeswax exports, and tenth in honey (Abebe et al. 2008), and tree planting

could substantially enhance the production of these NTFPs and the country's role in the export market. Tree planting also provides food; construction materials for traditional farm implements, houses, and household furniture; medicine; and fodder for animals.

As mentioned above deforestation, accelerated soil erosion, and land degradation are serious problems in Ethiopia. To overcome these problems, efforts have been made to launch afforestation and conservation programs; success to date, however, has been limited. Community participation serves as means for project successes and sustainability in the study area and wag-himira zone in general. Therefore studying the effectiveness (outcome) in the study area is vital with regard to community participation in the various stages of the project cycle. The role of community participation in the various stages of the project cycle in Sekota adjoining woreda Wolehe kebele Addissan afforestation project site has not been researched in so fare.

1.3 Objectives of the Study

1.3.1General Objective

- To assess the participation of the local community in afforestation program : The Case of Sekota adjoining woreda Wolehe kebele Addissan afforestation program site.

1.3.2 Specific objective

- To document the participation of local people at different stage of Addissan project.
- To identify the major factors determining population participation in the project.
- To investigate the relationship between population participation and outcome of afforestation efforts in the study area.
- To compare outcomes of afforestation program with and without community participation.

1.4 Research question

The research covers the following questions:-

- Is there community participation by the local peoples in the afforestation project in the case of Sekota adjoining woreda Wolehe kebele Addissan afforestation project site ?
- What is the role of community participation in the afforestation projects?
- How are community participation and afforestation projects related in the project site?

- What are the potential factors that determine the locale peoples for their participation in the Addissan afforestation project site?

1.5 Significance of the Study

This research will have importance both from academic and policy making point of views. As an academic exercise, it will add evidence about the role community participation in afforestation projects. By exploring the synergy between community participation and afforestation projects, the study will bring to light the level of decision that the community is able to make in the development process of its locality. As the sense of ownership of communities to the development process of their locality will greatly depend on the level of authority that they have in local decision-making, the result found in this regard will give insight about this defining attitude. Furthermore, by identifying the foremost economic, political, social, institutional and cultural factors that determine community participation in the afforestation projects, the study shows the driving forces of community participation in the woreda. Not least, by examining the challenges faced to ensure community participation in the afforestation project, the study will add distinct challenges to the list of previously recorded experiences. As the study will identified the driving forces and weak edges of the project and community participation process, it will have also importance in policy making circles. First and foremost, the information generated by the study would help to design customized project interventions that could make the afforestation project in the woreda successful. Secondly, the study would also show the critical points of intervention and predictable challenges that might be faced during the intervention. This has a lot to offer in terms of minimizing the cost and risk of interventions.

1.6 Scope of the Study

The study is limited in terms of issue, time and locality. Thematically, the study is delimited to look into the role community participation in the afforestation projects. The study was confined its analysis to Addissan plantation project. Spatially, the study focuses only on Sekota adjoining woreda Wolehe kebela Addissan plantation project site .The study was also limit itself to the investigation afforestation program outcomes as result of participation -: The Case of Sekota adjoining woreda Wolehe kebele Addissan afforestation program site.. Further, the study was embraced the political element of participation only to the extent that it is related to participation process, leaving the business of doing politics aside

1.7 Limitations of the Study

During data collection, the researcher had faced some problems. Among these the first problem was getting government and non government officials in their working place, due to the engagements of frequent meetings and also Wereda officials' reluctance to access adequate information and absence of organized data in their sectoral offices. The second problem is this paper not broad enough to cover all the audiences of ORDA"s in its study. Third problem was the distance between sample Kebele administrations. The forth constraint was the long time taken to fill questionnaires because of scattered settlements of the sampled rural households. The fifth problem was the budget shortage for per diem expenses, for transport and for photocopying documents. Despite these problems, the researcher has done all what he could have to collect relevant data to the study.

CHAPTER TWO

BACKGROUND

2.1 Study Area and Addissan Afforestation Project site Description

Amhara Region consists of 11 zones, 113 Woredas and 3015 kebeles. Wag himira is one of the ten administrative zones of the Amhara National Regional States. It is located in the northern part of the region and has a total population of 456,585 (Table 1). It is situated between 12°15 latitude and 38°48 east longitudes. Its boundaries are Tigray from the north, north Gonder from the west, north Wollo from the south east. The zone is subdivided in to six woredas and one town administrative: - Sekota adjoining woreda , Ziquala ,Dehann, Abergele, Sehala and Asketema and Sekota town. The zone has organized in to 108 peasant association kebeles out of which 85 are rural and 23 are urban kebeles. Sekota town is the administrative capital of wag Himira zone, which is 720 km far from Addis Ababe, along the road passing through Korem, and 420 km away from Bahir Dar (ARBoED, 2010).

The total area of Wag himira is 788,486 hectares out of which 15.5 % are arable land, 10.5% grazing land, 37.4% are covered with bushes and forests and 36.6% are impervious territories. In term of topography the zone is predominately mountainous with only few isolated plain lands consequently the topography of the area indicates 60% of the zone area is mountainous. 25% undulating and about 15% plain, which presupposes the enormous land is not suitable for agricultural purpose and is highly exposed to the treat of erosion. With regard to the climate, the zone has three agro-ecological zone called Dega (55.45% of the total territory) Woina Dega (3.1.4 %) and kola (13.12%).The mean annual rainfall of the area is estimated to be 681 mm and the duration of the rainy season is from July to August, with usual onset of rainfall on June and withdrawal on September The pattern of rainfall is, however very erratic characterized by unreliable occurrence of rains, delayed onset and early cessation which is a major drawback for crop failure and ultimately drought.

The main economy in Wag Hamra Zone is agriculture i.e. a combination of mixed farming and livestock production .In most years there was a complete failure of rainfall with consequent failure o f crops, shortage of water for human and livestock consumption,

increase of famine and misery. The great majority of the people (95%) live on rain fed subsistence agriculture. The crop growers have been unable to feed themselves for many years. Even in times of relativity good harvest and livestock production, the highest amount of cereal that a farmer produces in 10 to 20 quintals per annum (ARBoARD, 2011).

Table1;-Population size by Sex and Age Group and Urban Rural, Wag Himera Zone, (2011).

Population size by Sex and Age Group and Urban Rural, Wag Himera Zone, 2011

	Urban + Rural			Urban			Rural		
Group	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
4	71,933	36,045	35,888	4,914	2,518	2,395	67,019	33,527	33,492
	71,237	36,221	35,016	4,928	2,442	2,486	66,309	33,779	32,531
4	60,983	31,703	29,279	5,323	2,576	2,747	55,659	29,127	26,532
9	52,104	25,838	26,266	6,158	2,792	3,365	45,947	23,046	22,901
4	32,764	15,468	17,296	3,657	1,663	1,994	29,106	13,805	15,302
9	31,436	14,636	16,800	3,418	1,497	1,920	28,018	13,139	14,880
4	26,625	12,510	14,115	2,625	1,251	1,374	24,000	11,259	12,741
9	23,077	11,248	11,828	1,988	989	998	21,089	10,259	10,830
4	19,581	9,484	10,098	1,566	753	813	18,015	8,731	9,285
9	16,311	8,452	7,859	1,153	570	583	15,158	7,882	7,276
4	13,583	6,819	6,765	891	333	558	12,692	6,485	6,207
9	10,509	6,131	4,378	637	294	343	9,873	5,838	4,035
4	9,068	4,872	4,195	632	279	354	8,435	4,594	3,842
9	6,651	3,708	2,942	445	200	245	6,206	3,509	2,697
4	5,373	2,731	2,643	435	150	285	4,938	2,580	2,357
9	2,962	1,734	1,227	208	104	104	2,754	1,630	1,124
4	1,681	929	752	175	78	97	1,506	851	655
9	430	265	165	48	27	21	382	238	144
4	177	106	71	26	10	15	151	95	56
	101	64	37	13	7	5	88	57	32
l	456,585	228,966	227,620	39,239	18,535	20,704	417,346	210,430	206,916

Source: Wag-himira zone finance and development office 2011.

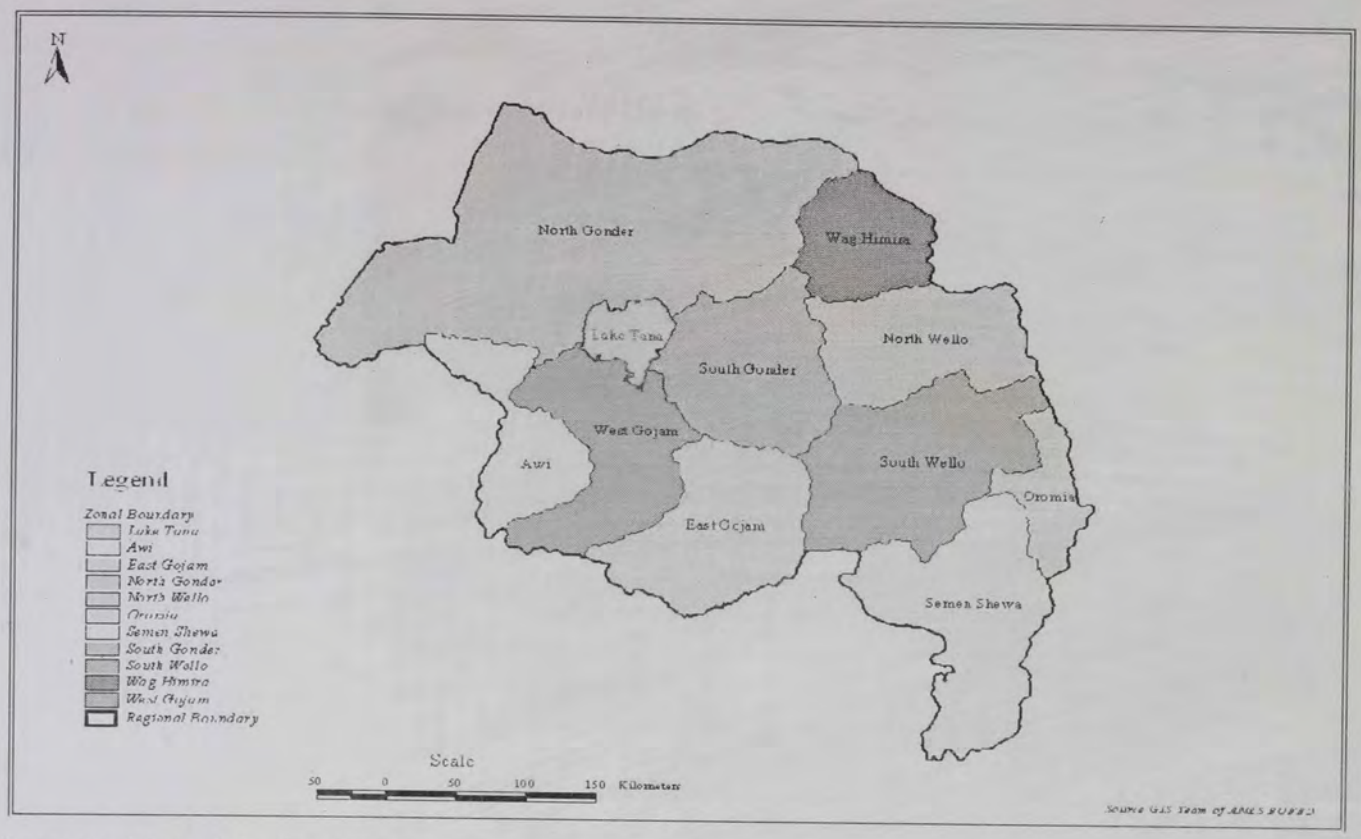


Figure 1:- Map of the Study Area
Source: Annual Plan of Sekota adjoining Woreda

2.1.1 Location and Population Size of the Study Area.

The study was undertaken in Sekota adjoining woreda. The total population of the woreda is estimated at 123,354 out of which 61,769 are male and are 61,584 females, the majority 95 % of the population lives in rural areas (Table 2). The average family size of the zone is 3.9 and the population density account to 42 person /km2 the people in the rural area are used to lives in scattered villages known as Gotes. The number of people living in a Gote ranges from 20 to 60. The settlement is crowded and is located in relatively plain area on the hills which are considered to be a protection of defense against enemy and also to save relatively flat land for farming.

Table2;-Population size by Sex and Age Group and Urban Rural, Sekota adjoining Woreda, 2011

Population size by Sex and Age Group and Urban Rural, Sekota Adjoining Woreda, 2012

Age Group	Urban + Rural			Urban			Rural		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
0 – 4	19,724	9,982	9,743	0	0	0	19,724	9,982	9,743
5-9	19,826	9,949	9,877	0	0	0	19,826	9,949	9,877
10-14	17,197	9,023	8,174	0	0	0	17,197	9,023	8,174
15-19	13,766	6,797	6,969	0	0	0	13,766	6,797	6,969
20-24	8,154	3,882	4,272	0	0	0	8,154	3,882	4,272
25-29	7,939	3,607	4,332	0	0	0	7,939	3,607	4,332
30-34	7,049	3,305	3,744	0	0	0	7,049	3,305	3,744
35-39	6,244	2,939	3,306	0	0	0	6,244	2,939	3,306
40-44	5,157	2,489	2,668	0	0	0	5,157	2,489	2,668
45-49	4,580	2,272	2,308	0	0	0	4,580	2,272	2,308
50-54	3,579	1,888	1,691	0	0	0	3,579	1,888	1,691
55-59	2,977	1,738	1,238	0	0	0	2,977	1,738	1,238
60-64	2,473	1,355	1,118	0	0	0	2,473	1,355	1,118
65-69	1,852	965	886	0	0	0	1,852	965	886
70-74	1,432	750	682	0	0	0	1,432	750	682
75-79	832	487	345	0	0	0	832	487	345
80-84	406	241	166	0	0	0	406	241	166
85-89	95	59	36	0	0	0	95	59	36
90-94	44	26	18	0	0	0	44	26	18
95+	27	16	11	0	0	0	27	16	11
Total	123,354	61,769	61,584	0	0	0	123,354	61,769	61,584

Source: Sekota adjoinig woreda agriculture and rural development office.

2.1.2 Location and Population Size of Selected kebele.

The study was undertaken in Sekota adjoining woreda Wolhe kebele. The total population of the woreda is estimated at 1524 (Table 2).

Table.3: - Summary of Wolehe kebele profile

o of in the	Selected kebele	Total households (HH) hoods of the selected kebela			Total administrators the selected kebele			Total development agents selected kebele			Total NGOs agents in the kebele		
	1(Wolehe kbela 24)	M	F	T	M	F	T	M	F	T	M	F	T
		1122	402	1524	1	-	1	2	-	2	2	-	1

Source: Wolehe kebele agriculture and rural development office.

Figure 2:- Map of the Study kebele
Source: Annual Plan of Sekota adjoining Woreda.

Table 4:- Land use practice in Wolehe kebele

Land use pattern	Coverage %
Afro-alpine	1.30
Bareland	5.44
Cultivation	23.61
Grassland	22.30
Natural Forest	0.11
Plantation	0.17
shrub land	45.90
Water	0.01
Woodland	1.16

Source :- Woody Biomass Inventory and Strategic Planning Project, 1996 E.C

2.1.3 Justification for Study Area Selection

Forests are crucial for maintaining and improving the productivity of agricultural lands as well as sustaining the ecological balance. Generally forests and Agroforestry systems are particularly important for provision of forest based products, climate modification and improvement of soil fertility. However, agricultural expansion triggered by increased demand for food expected to be 50% by the year 2000 (Earth Summit, 1992), growing world timber trade and wood fuel demand have destroyed much forest cover. Although this destruction has occurred world-wide, today the greatest challenge is in developing countries, particularly in the tropics. Growing population and the decreasing availability of arable land leads poor farmers in these regions to seek new land in forests to grow food crops (WCED, 1987).

The Constitution of Amhara National Regional State No. 2/2001 under article 91/1(a), states that the Woreda and kebele administration can implement policies, laws, plans, projects and programs initiated and formulated by both the federal and regional states throughout the Woreda and kebebles. This creates opportunities to the lower tier of government to plan and implement those policies and strategies based on their situations. As a result of this Constitutional entitlement, Sekota adjoining woreda administration has been established two legal tiers of administration; that is the Woreda and Kebele administrations with their corresponding powers, duties and responsibilities to implement projects within its territory. Therefore, the results that have been achieved in, agriculture especially in the afforestation activity in the zone and woreda during the three years are shown below (Table 5).

The study area, Sekota adjoining woerda Wolehe kebele , was selected for this study due to the fact that it is the focal project areas for the promotion , preparation and implementation of sustainable community forest development and afforestation project with the action of the government and ORDA(a local NGO) in the project site called Addissan.

2.1.4 Wag-himira Zone, Sekota adjoining woreda and Wolehe kebele afforestation plan performance.

The main aim of the afforestation project is to increases the total forest coverage by 1.2% through applying best experience and mode of implementation from 5.6 % which is the currently forest coverage of Wag-himira zone, by the coming 5 years (2010/11-2014/15 G.C) Therefore, the zone has an ultimate goal to have 12.57-13.85% in 2015 G.C (Table 5). On other hand, the affoestation project has an aim of controlling environmental degradation which has recently attracted both governmental and nongovernmental organizations dealing with it. The area has been identified as one of the main sources for sedimentation and fertile soil erosion accompanied by higher volume of sediment and soil run in to different artificial lake, and natural such as Tekeza, Trari and other large number of local rivers. As a result, local, regional and international organization such as Organization for Rehabilitation and Development in Amhara (*ORDA*), Save the Children UK-SEKOTA, and Action-fam Ethiopia initiated afforestation interventions to address this degradation in cooperation with the government (SAWARDO, 2010).

It was in 1997 that ORDA begun extensive reforestation program, till 2010, through its reforestation programs, ORDA was able to increase the natural coverage of the region by 0.61% and the plantation coverage by 13.3% through 163 million seedling plantatio

Table.5:- Summary of Wag-himira zone afforestation development plan

#	Year in G.C	#of plant birding area	Planned tree	Hectare /coverage	Achieved
1	2010-2011	49		370329	5.6-7.2
2	2011-2012	58	7.26	370329*1.2	7.2-8.85
3	2012-2013	62	9.48	370329*1.2*1.2	8.85-11.42
4	2013-2014	71	11.03	370329*1.2*1.2*1.2	11.45-12.57
5	2014-2015	83	13.51	370329*1.2*1.2*1.2*1.2	12.57-13.85

Source: Wag-himira zone agriculture and rural development office

Table 6:-. Summary of Sekota adjoining woreda afforestation development plan

#	Year in G.C	#of plant birding woreda	Hectore /coverage	Achived %
1	2010-2011	15	627765	5.6-7.2
2	2011-2012	19	67765*1.2	7.2-8.85
3	2012-2013	22	67765*1.2*1.2	8.85-11.42
4	2013-2014	22	67765*1.2*1.2*1.2	11.45-12.57
5	2014-2015	34	67765*1.2*1.2*1.2*1.2	12.57-13.85

Source: Sekota adjoining woreda agriculture and rural development office.

Figure3: Government 2003 yearly slogan to promote afforestation in the zone.

Source: Wolehe kebele agriculture and rural development office notice board.

Table7:- Sekota is adjoining woreda Wolehe kebele Summary of afforestation development Plan

Year in G.C	# of plant birding center in the kebele	Planted tree in the kebele	Hector /coverage	Achieved %
2010-2011	4	3,258,000	29	5.6-7.2
2011-2012	4	3,496,000	29*1.2	7.2-8.85
2012-2013	5	4,544,000	29*1.2*1.2	8.85-11.42
2013-2014	5	4,984,000	29*1.2*1.2*1.2	11.45-12.57
2014-2015	6	5,100,247	29*1.2*1.2*1.2*1.2	12.57-13.85

Source:Sekota adjoining woreda Wolehe kebele agriculture and rural development office.

2.2 Description and Location of the Addissan Afforestation Project site

Addissan afforestation Project is joint project run by government and ORDA (a local NGO) with a close involvement of local peoples. Which is located 35 kms from south of the capital of the adjoining woreda Sekota and 13 km from wolehe kebele administration. Which is an integrated part of the zonal, woreda and kebele plan for being implemented from 2010/11 – 2014/15 G.C. The project site comprises an area of 4,721 hectare. The area where the project is implemented (as with all land in Ethiopia) is the property of the Federal Government of Ethiopia and the project land is administered by Wolehe kebele. The land is 'communal land' or "Communal holdings" and management of the land is not allocated to any individual, group or organization. The land is degraded and is utilized *ad hoc* by community members for fuel wood collection, charcoal making, and grazing by the surrounding community. (Source: - ORDA, 2010)

The site is characterized by Massif Mountain and chains of hills interspersed with small valleys, gullies, out crops and flat plains. Geologically, the site belongs to the Precambrian origin underlain by basalt rocks. The Site lies within the Woina Dega agroecological zone and altitudes of the area range between 1000-1500 m.a.s.l.

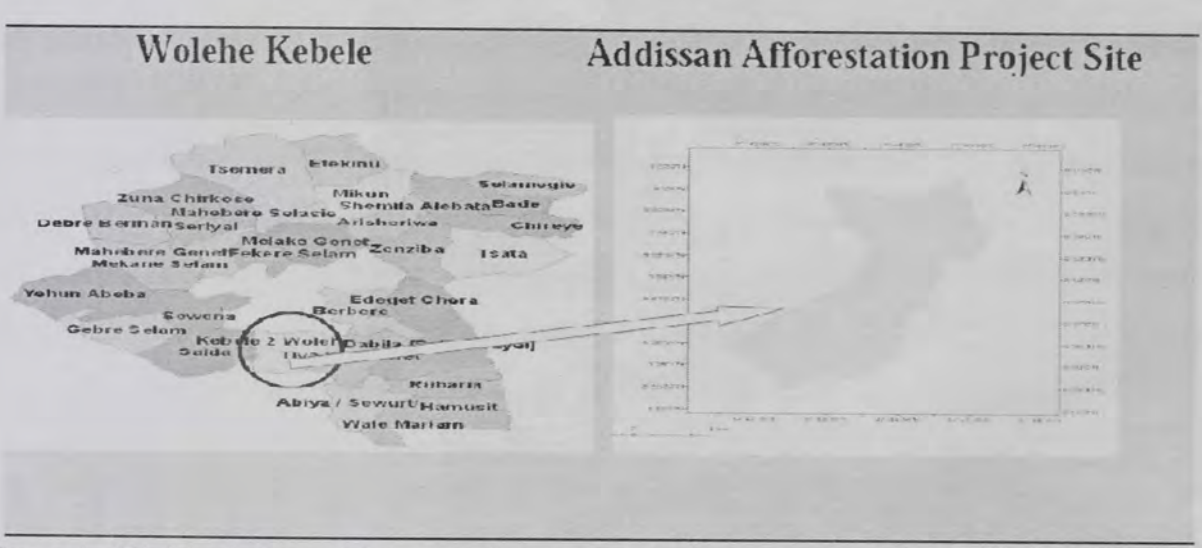


Figure 4:- Wolehe kebele Addissan afforestation project site map. Source:- ORDA

CHAPTER THREE
LITERATE REVIEW

3.1 Country Background - PFM in ETHIOPIA

Ethiopia, situated in the horn of Africa, has an area of 1,100,000 km2 (472, 000 sq. mi). With a population of over 82.5 million and an annual rate of growth of 3% (WRI, 2009), Ethiopia is the second most populous country in Africa and in land area it is the ninth largest. Although the whole of Ethiopia lies within the tropical altitudes, the climate is cool in the highlands and warm in the lowlands. The annual range of temperature is relatively small because of the proximity of the equator. Rainfall variability generally increases as rainfall total decreases, and thus is generally greatest in the lower rainfall areas of the north and northeast highlands. The rainfall is mostly uni-modal. The climate is mostly determined by the altitude, which dominates all aspects of land use because of its influence on temperature. The country has a wide range of agro-ecological zones reflecting the wide variation in rainfall (both quantity and distribution) temperature, altitude, topography and soils. According to the study made by Getahun (1978) and Constable (1985), three broad major agro-ecological zones are identified on the highland zones of Ethiopia (Table 1). These are the High Potential Perennial Zone (HPP), High Potential Cereal Zone and the Low Potential Cereal Zone. There are many reasons for introducing PFM, depending on whom you ask. The main two objectives are social and environmental. The one emphasizes mitigation of biodiversity loss, forest degradation and deforestation; while the other views a concern for livelihoods in forest neighbouring areas as well as the rights to utilize forest resources legally. These two are closely interlinked under PFM. However, the proportion of balance can be more prominent in one or the other, sometimes compromising one.

3.1.2 Agriculture and Land degradation

The FAO's concept of growing periods was used to classify the land-use systems into distinctly different agricultural potentials. This growing period concept takes into account the influences on plant growth not only precipitation and evapotranspiration, but also temperature and stored soil moisture. However, it is broadly defined here as the number of days in a year in which plants can grow without irrigation.

Soil degradation in Ethiopia can be seen as a direct result of past agricultural practices on the highlands. The dissected terrain, the extensive areas with slopes above 16%, and the high intensity of rainfall lead to accelerated soil erosion once deforestation occurs. Additionally, some of the farming practices within the highlands encourage erosion. These include Cultivation of cereal crops such as teff (*Ergrotis tef*) and wheat (*Triticum sativum*), which require the preparation of a fine-tilt seedbed, the single cropping of fields, and the down slope final plowing to facilitate drainage. Furthermore, socio-political influences, especially insecurity of land- and tree tenure has discouraged farmers from investing in soil conservation practices. Soil degradation is thus the most immediate environmental problem facing Ethiopia. The loss of soil and the deterioration in fertility, moisture storage capacity, and structure of the remaining soils, all reduce the country's agricultural productivity. Soil erosion is greatest on cultivated land, where the average annual loss is 42 tons/ha, compared with 5 tons/ha from pastures.

As a result, almost half of the loss of soil comes from land under cultivation, even though these lands cover only 13% of the country. Not surprisingly the highest average rates of soil loss are from formerly cultivated lands, which are currently unproductive because of degradation and have very little vegetative cover to protect them (Hurni, 1990). The present status and rate of soil erosion in Ethiopia calls for immediate action to retard and reverse this degradation process. However, the present population growth rate of 3%, in comparison with the annual agricultural growth rate of 2.4% (Hammond, 2001), will lead to even more intensive use of cultivatable and pasture land to produce more food and feed for the growing human and livestock populations. Hence, it is clear that intensification of land use must be accompanied by technological innovations that will lead to increased productivity, while simultaneously conserving the soil resource

3.2. Forest Resources of Ethiopia

3.2.1. Forest and Other Vegetation Resources

Diverse vegetation formations exist in Ethiopia. These range from the dry to very dry *Acacia* and *Commiphora* bushlands in the arid and semi-arid areas of the northeast, east and south to the tropical rain forests in the southwest and the cloud forests on the eastern escarpment and the mountains. Many attempts have been made to classify the vegetation of the country. By combining features of climate with vegetation formations and species

associations, nine broad vegetation types have been recognized (Sebsebe, 1996; CSE, 1997; Zerihun, 2000). These are:

(i) The dry evergreen Afromontane vegetation,

(ii) *Combretum–Terminalia* (broad-leaved) deciduous woodland,

(iii) *Acacia–Commiphora* (small-leaved) deciduous woodland,

(iv) The lowland dry forests,

(v) The lowland semi-desert and desert vegetation,

(vi) The evergreen scrub,

(vii) Wetland (swamps, lakes, rivers and riparian) vegetation,

(viii) The moist evergreen montane forest, and (ix) Afroalpine and sub-Afroalpine vegetation.

3.2.2 Vegetation types, location and distribution, some characteristic species and state of human disturbance in Ethiopia as of 2008.

i) Dry evergreen montane forest

Location and Distribution: from 1500 to 3400 m asl in the central, eastern, southeastern and northern highlands.

Characteristic species: *Juniperus procera, Afrocarpus (Podocarpus) falcatus, Prunus africana,Ekebergia capensis, Olea spp., Apodytes dimidiata, Allophylus abyssinica, Euphorbia ampliphylla, Olinia rochetiana, Myrsine melanophloeos, Dovyalis abyssinica, Myrsine africana,*

Calpurnia aurea

Extent of human disturbance: The most extensively inhabited vegetation zone in Ethiopia, where crop cultivation and grazing is widespread; forests have significantly diminished.

ii) *Combretum–Terminalia* (broad-leaved) deciduous woodland

Location and Distribution: between 500 and 1800 m asl, confined to western, northwestern and parts of south-western lowlands.

Characteristic species: *Boswellia papyrifera, Terminalia glaucescens, Acacia polycantha, Grewia* spp., *Stereospermum kunthianum, Acacia polycantha, Sterculia setigera, Oxytenanthera abyssinica, Balanites aegyptiaca, Annona senegalensis, Acacia senegal, Acacia seyal, Combretum adenogonium, ombretum collinum, Combretum molle*

Extent of human disturbance: Human influence is growing with settlements, mechanized crop cultivation (particularly sesame) and over grazing becoming threats to the vegetation.

iii) *Acacia–Commiphora* (small-leaved) deciduous woodland

Location and Distribution: between 900 and 1900 m asl, found in the southern and central Rift Valley, and eastern and south-eastern lowland.

Characteristic species: *Acacia seyal, Acacia albida, Acacia senegal, Acacia etbaica, Acacia mellifera, Acacia drepanolobium,* and other *Acacia* spp., *Balanites aegyptiaca, Commiphora africana, Commiphora myrrha,* and other *Commiphora* spp., *4 Boswellia* spp., *Moringa* spp. many of which are regionally restricted endemics.

Extent of human disturbance: Traditionally occupied by pastoralists and agropastoralists, but the woodlands in the Rift Valley are being affected by cropland expansion, overgrazing, drought and unsustainable fuel wood harvest and charcoal making.

iv) Lowland dry forest

Location and Distribution: a special type of forest found only in Gambella Region and adjacent parts of southern Sudan between 450 and 600 m asl.

Characteristic species: *Acalpha neptunica, Alstonia boonei, Baphia abyssinica, Celtis gomphophylla, Celtis toka, Milicia excelsa, Mimulopsis solmsii, Xylopia parviflora, Acacia mellifera, Combretum* spp., *Terminalia* spp.

Extent of human disturbance: Previous threats were mostly from settled refugees and refugee camps, but now expanding due to dams, large scale farming and discovery of oil.

v) Desert and semi-desert scrub

Location and Distribution: Areas below 900 m asl, found in the Afar at the northeastern end of the Rift Valley and eastern Somali lowlands.

Characteristic species: Deciduous shrubs, mostly *Acacia* spp., *Hyphaene* spp., some evergreen shrubs, many in the Euphorbiaceae, succulents and dwarf shrubs 'forbs'. Patches of *Commiphora* and *Boswellia* spp. also exist.

Extent of human disturbance: Pastoralism practiced for millennia, now being undermined by insecurity and refugee camps that are considerably affecting the vegetation negatively.

vi) Wetland (swamps, lakes, rivers and riparian) vegetation

Location and Distribution: Along all the major river valleys, the Rift Valley Lakes, Lake Tana, and other smaller lakes and seasonally inundated valley bottoms of the plateau.

Characteristic species: *Celtis africana, Ficus sycamorus, Mimusops kummel, Maytenus senegalensis, Acacia* spp., *Syzgium guineense, Afrocarpus falcatus* and others woody species recruited from adjacent vegetation. Also numerous herbaceous species, including many endemic Orchidaceae, Poaceae, and Cyperaceae.

Extent of human disturbance: Woody species significantly affected by cutting for fuel wood and construction. Herbaceous species by changes in land use, e.g. expanding rice cultivation and drainage for cultivation of other crops, particularly vegetables.

vii) Evergreen scrub

Location and Distribution: Replacing dry evergreen montane forest above 1500 m asl on steep slopes of the highland plateaus.

Characteristic species: *Euclea schimperi, Dodonaea angustifolia, Carissa edulis, Scolopia theifolia, Rhamnus staddo, Myrsine africana, Calpurnia aurea, Jasminum* spp., *Rosa abyssinica*

Extent of human disturbance: Clearing for crop cultivation despite steep slopes and high erosion rates, woody plants collected for fire wood and fencing.

viii) Moist evergreen montane forest

Location and Distribution: the typical high forest (tropical) type of the country found in the south western parts, which are the wettest in the country, and southern slopes of the Bale Mountains; contains the most important timber species of the country.

Characteristic species: *Pouteria (Aningeria) adolfi-friederci, Pouteria (Aningeria) altissima, Olea capensis, Prunus africana, Albizia schimperiana, Cordia africana, Mimosops kummel, Wahlenbergia capensis* and others.

Extent of human disturbance: Previously inaccessible except by the local people, the moist forest was little affected by modern developments. However, since the 1970s, its rich timber resources have been heavily exploited, there have been extensive settlements from drought prone areas of the country, and many other commercial activities have attracted a huge human influx. It is now under severe threat from over logging as well as conversion into tea commercial plantation

ix) Afroalpine and subafroalpine vegetation

Location and Distribution: Areas over 3000-3200 m asl, on the upper slopes and tops of high mountains in the north, central eastern and south-eastern parts of the country; characterized by temperatures below freezing at night, over 10 C during the day, shallow soils, intense radiation and high rainfall.

Characteristic species: *Erica* forest with *Hypericum revolutum* and *Hagenia abyssinica* at the lower altitudes, i.e. around 3000 m asl; above this clumps of giant *Lobelia rhynchopetallum*, bushland with dwarf *Erica, Alchemilla haumannii* and *Helichrysum* spp. and a taxonomically diverse herb flora including *Kniphofia* spp., *Crassula* spp., *Aeonium leucoblepharum, Trifolium* spp, grasses and sedges, with a high rate of endemism. This vegetation area is a uniquely rich ecosystem with its endemic birds and mammals such as Spot-breasted Plover, Abyssinian Wolf, Mountain Nyala, Walia Ibex and others.

Extent of human disturbance: Although people and their animals have used these areas for grazing for a long time, negative human impacts in this vegetation zone is a recent phenomenon. Population growth and land shortage are pushing people into this harsh and inhospitable environment as is clearly seen in the Simien Mountains National Park and the Bale Mountains ecoregion.

3.2.3 Spatial coverage and regional distribution of forests

Access to reliable information on the status of a country's forests is one of the prerequisites for formulating effective strategies because information supports efforts towards sustainable forest management. However, in Ethiopia, like most developing countries, reliable information on the vegetation resources such as their spatial coverage, distribution, changes over time (deforestation or re-growth), growing stock in the standing vegetation, regeneration and recruitment status and other essential information are lacking or difficult to get because it is scattered (Demel *et al.*, 2010). There is no national database, regular resource inventory and monitoring to provide reasonably good and up to date information. More importantly, most of the documents reporting on Ethiopian forest resources lack clarity on how, when and who collected them. According to Wubne (1991) wrote, in the late 19th century, about 30% of Ethiopia was covered with forest. As he stated, the cleaning of land for agricultural use and the cutting of trees for fuel gradually changed the scene, and today forest areas have dwindled to less than 4% of the country's total land.

The northern parts of the high lands are almost devoid of trees except the patchy remnants of old-aged Afromonane forest which can be found mainly around the Ethiopian Orthodox churches (Wubne, 1991). Also, about 45, 000 Km^2 of dense forest exists in the southern and south western section of the highlands including coniferous forests and the majority consisting primary of woodlands (Earth Trends, 2003). Before 1974 about half of the

forest land was privately owned or claimed, and roughly half was held by the government. There was little government control of forestry operation prior to the Ethiopian Revolution. The 1975, land reform nationalized forests. Thus, the government controlled harvesting of forest land. In some cases, individuals had to secure permits from local peasant associations to cut trees. But this measure encouraged illegal logging and accelerated the destruction of the remaining forests (Wubne, 1991). According to the work of the Woody Biomass Inventory and Strategic Planning Project (WBISPP 2004), Ethiopia owns a total of 59.7 million hectares covered by woody vegetation among which 6.8 percent are forest, 49 percent woodland and 44.2 percent shrubland or bushland. Regarding regional distribution, Oromiya (62.5%), Southern Nations, Nationalities and Peoples (SNNP) (19%) and Gambella (9%) are the three largest natural high forest owners, while Somali (33%), Oromiya (32%) and Amhara (10%) regions share the largest area of woodlands and shrublands/bushlands. In general, bearing in mind that estimates on the amount of forests vary based on the source of the information. Consequently, conflicting statistics are often found in different reports (Table 8)

Table 8: Forest resources statistics for Ethiopia as provided by different bodies, in chronological order

	EFAP, 1994		**Reusing, 1998**	**FAO, 2001**	**WBISPP, 2004**	**FAO, 2005**	
rest Resource	**Area (million ha)**	**Growth stock (m3/ha)**	**Area (million ha)**	**Area (million ha)**	**Area (million ha)**	**Area (million ha)**	**Stock (m3/ha)**
tural High rest	2.3	-	5.755	4.506	4.072	12.509	22
ghtly Disturbed rest	0.7	90-120	1.680	0.235			-
ghly Disturbed rest	1.6	30-100	4.075	4.271		12.509	22
odlands	5.0	10-50	31.554*		29.24	44.650	2.3
shlands	20.0	5-30			26.40	0.419	
ntations**	0.2	-	0.216		0.216		22
m Forests	NA	NA	NA		NA	NA	NA
lative ability king of the rces	3		4	2	1	4	

3.3 Strategies for Physical Recovery

3.3.1 Plantation Forests in Ethiopia

Ethiopia has a long history of tree planting activities. According to historical records, afforestation started in the early 1400s by the order of King Zera-Yakob (1434-1468). Modern tree planting using introduced tree species (mainly Australian *Eucalyptus*) started in 1895 when Emperor Menelik II (1888-1892) looked into solutions for alleviating shortage of firewood and construction wood in the capital, Addis Ababa (ECRN-UNDP, 2010). However, the historic rapid expansion of large scale and community plantations occurred during the Dergue regime, which resulted in the establishment of large scale plantations. Several fuelwood projects funded by UNSO, UNDP and FINNIDA spread over the country with marked concentrations around big cities such as Bahir Dar, Dessie, Gondar, Nazareth, Addis Ababa and Debre-Berhan (Breitenbach, 1962). These plantations have often been established for supplying the huge demand for wood products in Ethiopia. Today according to (WBISPP, 2005) tree plantations cover approximately 500, 000 ha (WBISPP, 2005), out of which 133,041 ha were established as community plantations between 1978 and 1989. *Eucalyptus species* (58%) and *Cupressus* (29%) are the dominant plantation species. Other species include *Juniperus procera* (4%), *Pinus* species (2%) and the rest (7%)

Similarly the trend in Ethiopia today is to protect the remaining natural forests for their various social, economic and environmental values. On the other hand, there is increasing demand for wood and wood products. To strike the balance between the two interests, afforestation/ plantations is very important. Plantations are even-aged forest stands deliberately established by humans on formerly non-forested lands or deforested lands (ECRN-UNDP, 2010). According to FAO (1993) Forests plantations are defined as forest stands established artificially by afforestation on land previously did not carry forests, or forest stands established artificially by reforestation on land which carried forests within previous 50years or within living memory and involving the replacement of previous crop by a new and essentially different crops. Evans (1992), defines plantations simply as a forest crop or stand raised artificially either by sowing or planting (Yirdaw, 1996).

The purpose can be wood production or environmental protection under the ownerships of the private sector, individual farmers, the community, or the state. The size of plantations ranges from less than a hectare (e.g., *Eucalyptus* woodlots) to several hundred thousands of

hectares of land (large scale plantations). Size of large scale state or community plantations depends on whether the plantation is integrated with a processing industry (and thus with its annual intake of wood), availability of market or the wood requirements of communities (WBISPP, 2005).

3.3.2 Reforestation as a Response to Deforestation

In the past system, to ensure that conservation activity conformed to government policy and directive on land use, reforestation programs were organized through Ministry of Agriculture and Rural Development or District Offices that planned, coordinated and monitored all work. Reforestation programs resulted in the planting of millions of seedlings in community forest throughout Ethiopia. However, critics maintained that the local peasant associations lacked decision-making authority. As a result, reforestation programs did not perform well because of inadequate case of premature cuttings by peasants (Wubne, 1991). In the present system also (FAO, 2001, in EPA, 2008), forest plantation programs have been initiated on a large scale in selected regional forest priority areas to rehabilitate formerly forested areas and produce industrial and construction wood. It explained that the total area of planted forests is estimated 216, 000 ha comprising industrial, fuelwood and commercial plantations.

The country also has prepared a number of forestry and environmental action plans including the Ethiopian Forestry Action Plan (EPA, 2008). While the new forest policy has a target that the forest cover should increase 9% within five years, it was reported that this ambition is not yet reflected in the actual situation in the regions where, despite the large scale interventions, forest cover is still shrinking. In addition Various international organizations and consultants, including the World Bank, in the Ethiopian Highland Reclamation Study(Constable, 1985); FAO, in Preparatory Assistance to Research for Afforestation and Soil Conservation (Davidson, 1988);ICRAF, in Agroforestry: Potential and Research Needs for the Ethiopian Highlands (Hoekstra et al., 1990), all have emphasized in their recommendations the need for conservation-based integrated development as a strategy to overcome the degradation of land resources and improve agriculture and forestry development in Ethiopia. Moreover, priorities indicate that the initial effort be directed to areas where the environmental degradation is high and food production returns are low. Again to overcome deforestation and land degradation on the

Ethiopian highlands and provide the people with food, fuel wood and fodder on sustainable bases the following natural resource management strategies are proposed: Implementation of agroforestry and social forestry in the rural areas where subsistence farming is practiced Expansion of plantation forestry both industrial and non-industrial on currently uncultivated and sloping lands Conservation of the remaining natural forests to conserve species and biodiversity. If properly practiced and managed, these activities will help achieve sustainable production and environmental protection on the Ethiopian Highlands. In the subsequent sections the contributions of agroforestry and social forestry toward alleviating food insecurity, fuelwood and fodder shortages, while providing environmental benefits on the Ethiopian highlands will follow. Also the potential of plantation forestry to provide wood and other benefits will be discussed. Strategy for conservation and enrichment the remaining natural forests will be addressed.

3.3.3 Agroforestry and Social Forestry

Agroforestry is not totally a new concept in Ethiopia. It is an age-old practice whereby farmers maintain trees in croplands. Such woody perennials are retained for their multiple uses and benefits, such as their nitrogen-fixing properties and soil improvement capacity, and the provision of fodders, fuelwood, and fruits (Hoekstra et al., 1990).The role of agroforestry in satisfying the basic needs of the rural peoples of Ethiopia is large, but little research has been initiated to identify suitable agroforestry technologies and appropriate tree species for specific areas of Ethiopia. However, based on the work done by the Technical Committee for Agroforestry in Ethiopia (Hoekstra et al 1990), I propose the following agroforestry technologies appropriate for the land-use systems in the Ethiopian highlands. Even where the proposed technologies were not implemented, they can at least serve as baseline information for further development of agroforestry in Ethiopia.

3.3.4 Community Forestry and Soil Conservation

Community forestry has been defined by FAO (1978) as any situation, which intimately involves local people in a forestry activity. It embraces a spectrum of situations ranging from woodlots in areas with short of wood and other forest products for local needs, through the growing of trees at farm and community level to provide cash crops and the processing of forest products. Despite major problems of deforestation and land degradation, massive soil conservation and afforestation programs have been going on in Ethiopia since the early

1970's (Hurni, 1990; Gamachu, 1990). These programs were undertaken by various agencies of the government through the assistance of international and bilateral organizations.

The Community Forestry and Soil Conservation Department of the Ministry of Agriculture is the main government agency involved in the planning and execution of soil conservation measures and afforestation programs. The Department is involved mainly in three main activities: farm forestry, community forestry and soil conservation. In the farm forestry program, farmers are encouraged to establish small private plantations around their homes - usually various species of Eucalyptus. In the community forestry program farmers are encouraged to plant trees on community lands.

The Community Forestry program provides technical and financial support in the establishment of nurseries and the planting of seedlings. The Soil conservation unit is involved with terracing and other soil protection schemes. The Department works directly with farmers who provide labor. The World Food Program of the United Nations has been involved and continue to support soil conservation, afforestationand small scale irrigation projects in Ethiopia since the mid-1970's. Its assistance is mainly in the form of Food for Work Program where farmers who come to work on the projects are provided with grain and vegetable oil. Various documents of the Community Forestry Department (CFD), indicate that by September 1986 close to 500,000 hectares of farmland and 175,000 hectares of hillside has been terraced and 181, 000 hectares of land has been afforested by the Community Forestry program throughout the country. Although the achievements were impressive, it has been reported by CFD that soil conservation and afforestation activities have declined over the years and the enthusiasm manifested in the early years of the programs seem to have failed in the recent years (Hurni, 1990; Gamachu, 1990).The problems seem to be related to disincentives among farmers for soil conservation measures and afforestation programs.

These activities although part of a "development package" are not seen to ensure an immediate return to the farmers. The activities take some land out of production and place more pressure on existing farm and grazing land. This is particularly the case in northern Ethiopia where there is a shortage of agricultural land. Farmers are also required to provide

their labor and time for activities, which from their point of views do not generate immediate benefits.

Moreover, in the use of community forests there is no clear legal base for determining ownership. Farmers tend to assume that the forests belong to the State and they don't have the right to use and own these forests. Also, the massive national soil conservation and afforestation efforts between 1976 and 1985 were often seen as government-imposed activities, and since they were not accompanied by education, the advantages of these efforts were not associated with individual benefits (Gamachu, 1990; Hurni, 1990).

Establishment of forest plantations to provide timber and construction materials, pulp and paper for industry and public use, and fuelwood for urban dwellers is essential in the future economic development of Ethiopia. Plantations can be established as pure and/or mixed stands with appropriate silvicultural techniques. This can be achieved through private sector involvement by establishing industrial plantations and non-industrial private forests. Encouraging the private sector to be involved in developing industrial forests plantations can potentially help increase self sufficiency in wood production and contribute to the national economy. Furthermore, encouraging farmers and small landowners to be involved in tree growing scheme will help them generate income for the households. In order for plantations to be successful in checking deforestation and to satisfy the growing timber need, they must be managed based on principles of ecosystems. Improvement in forest legislation concerning plantations and participation of the local people in forest plantation work is essential. Plantations should not be just a tree crops but also should help in alleviating environmental problems in the area and promote the well being of the local community.

3.3.5 Natural Forest protection and conservation

Forest protection can be defined as predominantly natural areas safeguarded by law or custom where species and ecosystems are conserved for current and future generations. Since the best way to maintain species is to maintain their habitats, protected areas are an essential means for sustaining diversity. Protected areas also help in stabilizing the local climate, protecting watersheds, and preventing erosion. Protected areas constitute the most widespread mechanism used to conserve the remaining natural forests of Ethiopia. However, the present coverage of natural forest is generally inadequate. Conservation must

be a part of a broader process of managing the whole landscape. Thus, protected areas will contribute to the conservation of the remaining natural forests in Ethiopia, if they are able to meet the legitimate developmental aspirations of the people that live in and around them (Sayer et al. 1992). Protection and conservation of the remaining natural forests is critical to protect species and biodiversity in Ethiopia. The identification, demarcation, and gazetting of the remaining natural forests and wildlife and leaving them as a heritage to the next generation will be beneficial to present as well as the future generations.

3.4 Productivity, Management, Social, Economic and Policy Issues

Deforestation and land degradation should be seen as the most important issues threatening the survival of Ethiopia. Floods, drought, desertification, drying of streams, and soil erosion are connected one way or another with the process of forest exploitation and destruction. Although various potential strategies for tree planting and natural resource conservation on the Ethiopian highlands are proposed, their successful implementation will be limited unless the following social, economic and policy issues are addressed properly. (ECRN-UNDP, 2010).

3.4.1 Productivity of plantation forests

Productivity of plantations depends on site productivity (quality), seed sources (genetic potential), and management. Site productivity is primarily determined by rainfall, modified locally by topography and drainage pattern influencing water availability and length of growing season. However, moisture limitation in drier areas can be overcome by irrigation, which greatly increases productivity because of high level of radiation and good soils. For productive plantations, selection of mother trees with superior quality is essential. Seed collection, processing and storage are also key considerations. Currently about 59 % of the demand for tree seeds are covered primarily by a government supplier at the Forestry Research Center (Abayneh Derero, 2004). Besides site quality and the genetic potential, management of plantations including nursery establishment, seedling production, silvicultural operations (timely weeding, thinning, and pruning), protection (diseases, pests, fire) and timely harvesting affect the productivity of plantations in a given area. However, most of the plantations are suffering from lack of proper management. The condition of plantations established by the state and communities across the country does not receive timely thinning, pruning or harvesting. And the absence of sound and comprehensive land-

use policies encompassing the identification, selection and appropriation of suitable areas for forestry development based on production and environmental protection is the outstanding forestry problems in Ethiopia (MOA, 1991). This has a negative implication on the economic benefits that could be accrued from plantations.

3.5 Public Participation as Means and End.

Community participation has received increased attention in international and national policy in recent years. It is considered important as an end in itself (as a democratic right), as well as a means to the achievement of sustainable development and poverty alleviation (Stiglitz, 1997). Public participation is the process by which public concerns, needs, and values are incorporated into governmental and corporate decision making. It is two way communication and interaction, with the overall goal of better decisions that are supported by the public (James 2005).

In light of this, James (2005), Marsink (1971) supports this idea by saying:

> *"Even when participation means only an exchange of views and opinions, such participation in plan formulation should be real and effective, as distinct from ceremonial, pseudo-participation on ineffective committees or boards whose decision will be ignored, mislead or otherwise made ineffective" Marsink (1971)*

The World Bank has been evaluating participation in international development projects. In a major report on lessons learned from bank experience in participatory development, the authors concluded:

> *A statistical analysis of evaluations of 121 rural water supply projects throughout Asia, Africa and Latin America supported by 18 international agencies including the Bank, revealed "beneficiary participation" as the single most important factor in determining overall quality of implementation. . . . The analysis also demonstrated that beneficiary participation was the single most important factor to contributing to increased access and control over water resources. It also resulted in community members acquiring new water-related and organizational skills, and strengthened community organizations which went on to undertake other development activities [World Bank, 1994, p. 23].*

These studies are examples of a growing body of empirical research verifying that the claims made for public participation are indeed real.

The other important point that has been the hotspot of deliberation with regard to public participation is the type and determinants of successful participation. As to the types of participation, Eversole (2005) has indicated that the variety could range from representative participation to instrumental participation and on to transformative participation. In representative participation, the community will have only "just a say" through its representatives. The case for instrumental participation involves the local community as "contributing" agents. In transformative participation, however, the community is "the owner of the agenda". In another claim, Tegegne (2001) has tried to portray a dualistic framework of looking at community participation in local development and planning. In this framework, participation is painted either "as a means" or "as an end" without looking the many combinations along the continuum. Cohen (1980) has also provided another way of looking at types of participation. They categorized participation along the planning cycle as participation in decision-making, participation in implementation, participation in benefit-sharing and participation in evaluation. Yet, since the phases of the planning cycle are not mutually exclusive, this way of looking at participation would give an unrealistic impression.

A more or less comprehensive analysis of the types of participation was provided by Arnestien (1969). A ladder of participation, as she calls it, comprises of eight levels of participation. The bottom ladders, dubbed manipulation and therapy, are described as stages of non-participation. The real objective of such type of participation is not to enable people to participate in planning and development programmes, but to "educate" or "cure" the participant. The third, fourth and fifth rungs, named as informing, consultation and placation respectively, allow the community to hear and have voice but they lack the power to ensure that their views are not heeded away by the powerful. The sixth, seventh and eighth rungs, called partnership, delegated power and citizen control are where real citizen power is manifested. *Figure 5*, below, depicts Anestine's ladder of community participation.

As indicated in both Arnestien (1969) and Reddy (2002), factors that determine community participation range from economic to political and on to institutional. Amongst them, the economic status of community members, the political will of local governments, institutional arrangements and the level of individual interest on issues are found to be important determinants of community participation in local development and planning.

Similarly, Tegegne (2001) has emphasized that institutional setting play an important role to ensure successful community participation in local endeavors. Yet, what is true of the vast literature in this regard is the fact that determinants of community participation in local development and planning process is different in different localities attributed to economic, social, political, institutional and cultural differences.

Citizen Control **Delegated Power** **Partnership**	Degrees of Citizen Power
Placation **Consultation** **Informing**	Degrees of Tokenism
Therapy **Manipulation**	Non-Participation

Figure 5;- Arnestine's Ladder of Citizen Participation adopted from Arnestien (1969)

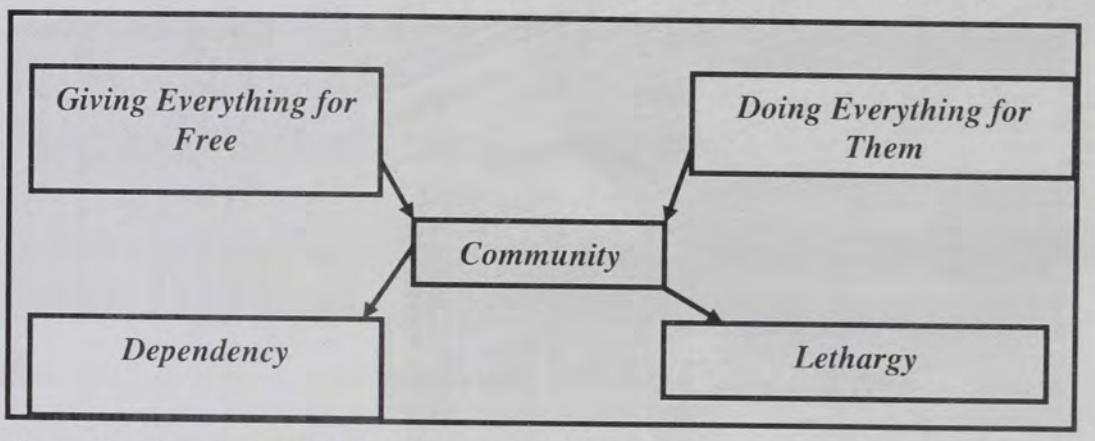


Figure 6;- Top-down Model of Community Participation reconstructed from Reddy (2002)

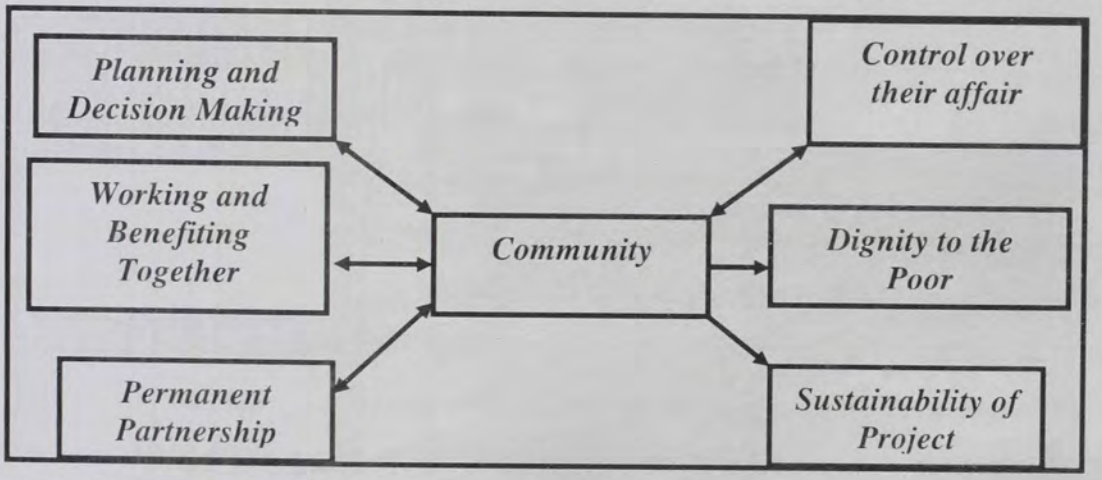


Figure7:- Partnership Model of Community Participation reconstructed from Reddy (2002)

3.5.1 Participation of the rural and urban people

Participation of the rural and urban people in tree planting and conservation of the natural forests is very important to achieve the proposed strategy. Involving farmers and local people who live around the forests in tree planting and natural resource management is critical for conservation and development of forestry. This can be done through a participatory process where farmers and local people are involved in planning, design and implementation of the management plan. This exchange of information and partnership will help build confidence and to reassure all that the programs are relevant to their needs and ensures they have a sense of responsibility towards the project. Attention should be given to the creation of effective local management organizations to mobilize farmers in the conservation, development and appropriate use of forests and agroforestry products. Institutional arrangements at the community level are often key elements in natural resource conservation in planning agroforestry and tree planting for field implementation. The FAOs experience in small farmer development work suggests organizing farmers into small homogenous groups of about 10-15 farmers or heads of families so the people can more easily obtain government service. These informal groups work best when farmers have similar incomes, problems and aspirations (Rao, 1986).

3.5.2 Economic Incentives

Wood should not be considered as a free good, rather, it should be considered as one of the commodities that requires, land, labor and capital to produce. Thus, it should be priced based on capital and resource invested, and demand and supply in the market place. This will be a great incentive for establishing forest plantations and small private forests in the country. The government must create economic incentives for tree growing and for otherwise adopting suitable agroforestry and tree planting practices by rural people. Direct credit to farmers is another financial matter to be addressed. New mechanisms must be devised, as there is little experience in organizing credit for tree crop cultivation in developing countries. Incentives may involve supplying seeds and seedlings either free of change or at a nominal price. Ensuring an adequate supply of hand tools for planting and temporary food aid can encourage farmers to participate in the tree planting and adoption agroforestry technology. Another way to provide incentives is for the community to provide the land and the labor while the forest service or NGO provides the seedlings, fertilizers,

and technical assistance. When the crop is harvested, the net profit is shared on a proportional basis depending on inputs as agreed upon. (ECRN-UNDP, 2010).

3.6 Challenges of Forest Resource Sustainability

As FAO (1995, in Mayer, 2001) estimated, forests covered close to 27% of the world's total land area not including green land and Antarctica. As FAO stated some of these forests were natural, old-growth, undisturbed ecosystems; some were fragmented, disturbed environments, and some were tree plantations. And over a billion people depend partly or wholly on these forests thus, forests more than ever are being challenged by multi polar unsustainable human interventions. In Europe acid precipitation kills forests and more than 11 million hectares of forests are destroyed yearly around the world most of which is converted to low grade farm land unable to support the farmers who settle in it (Lechner and Boli, 2004). Sustainable forest development is also being challenged by lack of funds. This is because major forestry activities like forest inventory, plantation maintenance, lack of transportation for adequate monitoring and control conveying staff and materials to and from the site of activities and several others depend on the availability of fund (Wubne, 1991).

Poor governance is another challenge. Where there is weak governance, poor people have few incentives to manage their resources and face significant barriers to building sustainable livelihood for themselves. Where there is lack of effective management, common property like forests can be over-exploited, unregulated competition and resource degradation happens.3 Similarly in Ethiopia, as EPA (2008) observed, the present management practices have not been able to control or stop the loss of forests. As it stated, though the regional forestry action plans have been prepared in many of them, the regional governments have not gone beyond the preparation of the document and implementation of investment programs have not yet been in place.

It was suggested that in order to reach its forestry potential, Ethiopia needs not only have an effective forestry service but also attract the investment from individuals, communities, and commercial actors. For this, clear property rights, appropriate institutions, and organizations, technical support, and appropriate policies and clear guide lines are needed

3.7 Future Forest Management Options: Multiple Objectives Management

Forests have multiple functions in today's society, and the principles of multiple objectives management of different forest categories is expected to achieve such expectations. Addressing the problems of deforestation and forest degradation will enhance ecosystem services that have knock-on effect on other sectors such as energy, and agriculture. Additionally, the demand for wood and non-wood forest and tree products could be satisfied. Through appropriate management, the various objectives could be optimally achieved, including enhanced carbon sequestration in forest resources (ECRN-UNDP, 2010).

3.7.1 Forest management scenarios

3.7.2 Scenario 1: Status quo (Business as usual)

Forest resources have not so far been managed properly, with few exceptions by profit making enterprises (e.g., Oromyia Forest and Wildlife Enterprise) and forest managed temporarily by NGOs in PFM. Consequently, deforestation and forest degradation continued unabated (Table 9) at an annual rate of about 2%. At 2% deforestation, about 700,000 ha of 'forests' will be destroyed every year, releasing nearly 110 million CO_2 to the atmosphere. If this scenario is maintained, another important consequence is wood crisis (Table 10). Further, the country will be forced to import more wood, with a significant implication on foreign currency reserve.

Table 9:- Annual deforestation rate estimates in Ethiopia

Source	Annual Deforestation Rate	Remarks
FAO, 2010	0.96	Forest decline between 1990-2010
WBISPP, 2005	2.08	Difference between forest cover estimates by CESEN in 1977 and WBISPP, 1991
WBISPP, 2005	1.66	For the three forested Regional States (Oromyia, SNNP, Gambella)
Reusing, 1998	5	For southwest high forests

The table presented above shows different figures on the rate of deforestation. The authors probably used different definitions of forest, different tools and methods. These figures are confusing for users including decision makers. Therefore, there must be one agreed rate of deforestation for Ethiopia that can be used by all stakeholders and forestry experts. Nevertheless, the WBISPP (2005, p.20) indicated the actual deforestation rate may be close to the oft-quoted rate of 2%.On this demand-supply condition (Table 10), the remaining forest

resources of the country will be further degraded and deforested, unless modern energy and construction materials are introduced. Additionally, the effort the Ethiopian Government is putting in order to benefit from the climate change related projects.

Table 10: Supply- consumption pattern of fuel wood in Ethiopia

SOURCE	ANNUAL WOOD SUPPLY	ANNUAL CONSUMPTION	DEFICIT OR SURPLUS
UNDP/World Bank, 1984	8.1 million tons (13.5 million m3)	20.34 million tons (33.9 million m3)	Consumption is 2.5 annual yield
ENEC/CESEN, 1986	63 million tons 24 million	(40million m3) tons	Positive balance
EFAP, 1994	8.6 million tons(14.4 million m3)	35 million tons (58.4 million m3)	Consumption 4 times higher
UNDP/World, 1996	n.a.	31.5 million tons (52. million m3)	Deficit indicated
WBISPP, 2005	50.1 million tons (84.9 million m3)	53.6 million tons (89.4 million m3)	Deficit of 3.5 million tons
EFAP 1994 projection for 2020	-	-	Deficit 87-121 million m3

(n.a. = data not available)

3.7.3 Scenario 2: Managed forest

The experience in other countries shows that management intervention on natural forests increases wood production, carbon sequestration, besides its benefits in terms of biodiversity conservation and watershed protection. For example, the average accumulation rate of carbon dioxide in managed forests is around 5.5 tons ha^{-1} yr^{-1} in woodlands, and 21 in tropical rainforests, subtropical forests and lowland forests (www.communitycarbonforestry.org), while unmanaged tropical rainforests grow at a rate of about 0.5 tons ha^{-1} yr^{-1} (Lewis et al., 2009): about 40-fold increase in annual yields. Additionally, unmanaged forest is subject to further degradation. Ethiopia has taken significant legal steps towards improved management of forests and may change the forest management regime in the country. The new forests policy and forest proclamation (542/2007) is one such step. In this proclamation, besides the definition of forest ownerships (primate and state) and purpose (protection and production), decentralized forest administration is recognized. Ethiopia has also gathered experiences on innovative forest management approaches including Participatory Forest Management and area enclosures (e.g., Tigray's experience) over the last two decades. Woodlots, agroforestry and public afforestation

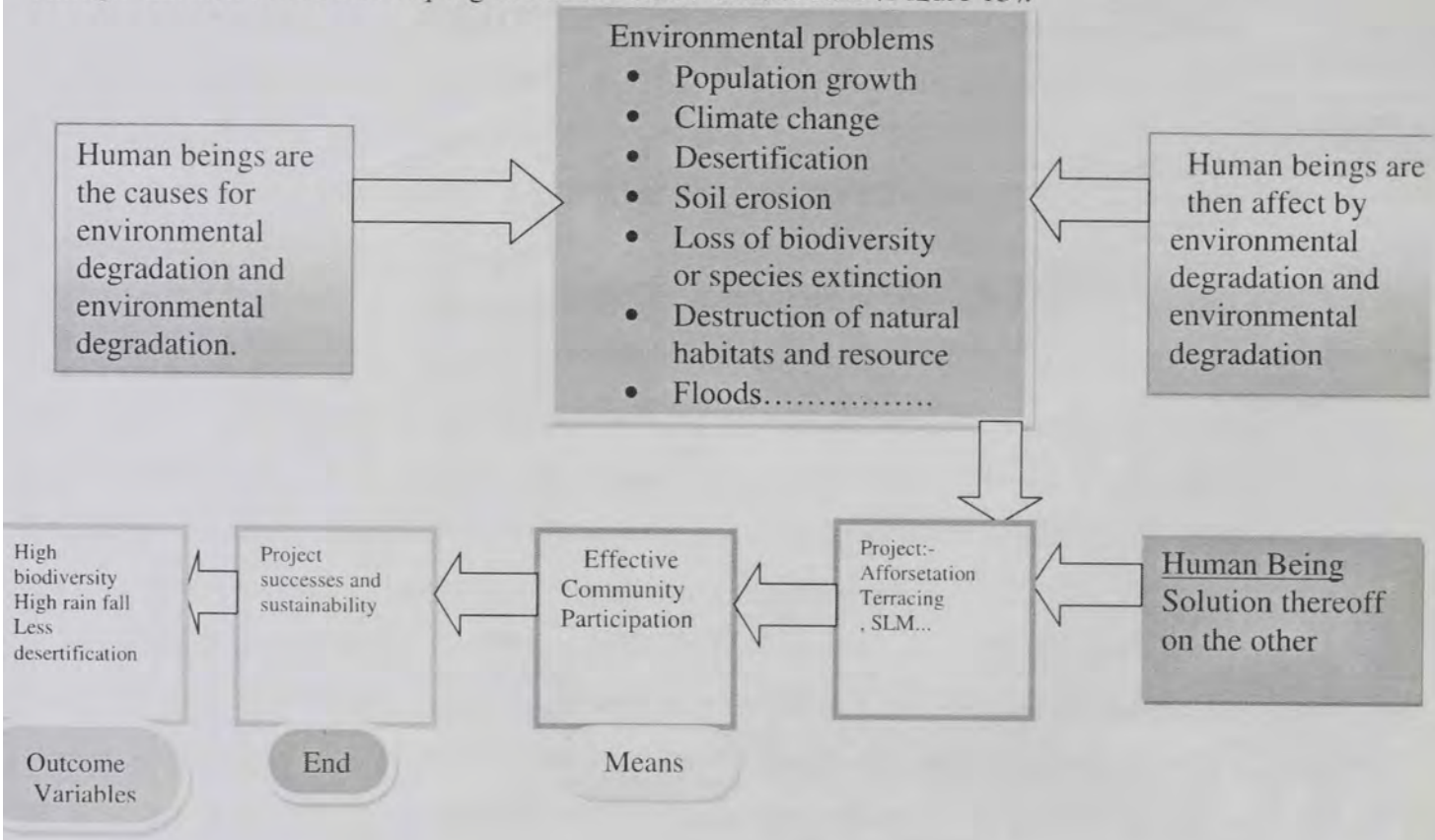
and reforestation are also increasing. Additionally, NGOs are pioneering special forest management strategies such as Biosphere Reserves. The government has also introduced a national tree planting campaign every year all over the country in which every person is encouraged to plant trees, with significant influence on the attitude of the population on trees. Given such developments, it can be expected that the gloomy situation in forest management will not continue. Up-scaling such strategic forest management approaches backed with proper forest management principles (which is not the case in most instances now) should be able to change the current forest management regime. It is important to note that key aspects of proper forest management include the following, among others:

- Proper institutions for managing forest resources (skilled manpower, sufficient Financial and material resources)
- Applying scientific forest management principles (e.g., sustainable yield principle where annual harvest equals annual yield)
- Adequate investment on required silvicultural operations and forest administration, and
- Proper utilization and marketing. (ECRN-UNDP, 2010).

In this context, the Oromyia Forest and Wildlife Enterprise is pioneering implementation of these requirements. If Ethiopia is to bring significant change in forest resources degradation, alternative sources of energy should be a top priority at least in the medium term. Additionally, expansion of energy plantations which are eligible under CDM could also be taken as a strategy. Additionally, despite significant progress in the policy arena, the main challenge is still weak implementation of the policies concerning land use planning, creating capacitated institutions at various levels, land use conflicts, illegal cutting of trees, benefit sharing mechanisms in participatory forest management, etc. Under the current forest administration and governance, the Natural Resources Directorate of Ministry of Agriculture and Rural Development are responsible for forestry development, conservation and utilization. The technical and financial capacity is very limited, and is understaffed. In the forestry research, the situation is not much different. Facilitating successful implementation of forest development strategies requires having adequate national institutional capacity, at federal and regional levels. (ECRN-UNDP, 2010).

3.8 Conceptual Framework

In this 21st century human beings are both the causes for the problems of environmental degradation and environmental degradation itself on one hand and the solution thereoff on the other. It is to mean that they create problems and solve problems as well. The main difference between problem creating and problem solving groups of human beings highly depends on the degree of involvement and measures they use for their creation and solution of problems which greatly vary from one to another. Now a days, the world faces many environmental problems these problems are of two types in terms of the area that they cover they are global and local environmental problems. Governments, and non-governmental organizations working internationally, national, regionally and locally design different projects to alleviate these global and local environmental problems with a close involvement of community participation using as means and project success and sustainability as end taking Addissan afforestation program as the study sample case (Figure 13).



e 8; The role of community participation in project success and sustainability constructed by the researcher.

CHAPTER FOUR
METHODOLOGY

4.1 Research design

The study is to investigate role of local people's participation in the various stages of the project cycle of afforestation project (Project identification, Planning, Implementation and Monitoring and Evaluation) in the case of Sekota adjoining woreda Wolehe kebele Addissan afforestation project site. Cross sectional descriptive and exploratory surveys up on which both (qualitative and quantitative methods) are employed.

4.2 Source of Data

The data used in this study are collected from both primary and secondary sources. Primary data are obtained through interviewer-administered face to face questionnaire, interviews and focus group discussions. In addition, secondary data sources such as books, journals, other published and unpublished materials, and conference proceedings, official documents (Constitution, administrative documents and archival documents) are used.

4.3 Sampling Design and Procedures

To get in-depth information, few numbers of participants were selected. Therefore, both purposive (judgmental) and systematic random sampling were employed. Its primary consideration in purposive sampling was the judgment of the researcher as to who can provide the best information to achieve the objective of the study. Purposive sampling was used for the selection of key informants such as Woreda sector offices experts, Kebele administration chair man, kebele agricultural development agent (DAs) and ORDA extension workers, elected committee (local level or village level forest committees) , local community representatives and focus group discussion participants for the study. This type of sampling is useful to describe and explore a phenomenon in detail (Kumar, 2005). Moreover, the sample respondents or the rest of respondent were selected by systematic random sampling method. Thus, one household was randomly selected from among the first ten households through the 'lottery technique' (Bless and Higson-Smith, 1995). The next and subsequent households were selected based on the interval established freedom of responses.

4.4 Sample Size Determination

The study population consists of 1,528 households of which the researcher selected a sample of 152 respondents using the 10% procedure (Gay, 1981). The researcher used systematic random sampling technique to select these respondents. The researcher used interviewer-administered face to face questionnaire for this participants because majority of participates were no education, and interviewer-administered face to face questionnaire has importance to clarify ambiguous question and to providing quick answer for respondents. The researcher used interview to collect data from seven purposively, selected key informants these are kebele administration chair man and kebele development agent, one ORDA extension worker , one village level forest committees, one woreda DA supervisor and two local community representatives. The researcher also conducted a focus group discussions with nine purposively, selected community members. In terms of composition three from administrative key informants (local level or village forest committees) and three composed of community local representatives including elders (men and women) and three local peoples or user gropes (one farmer, one wood seller, one charcoal seller). Data collected through FGD were used for triangulation with data collected using the standard questionnaire. Data analysis for community participation at different stages of the project cycle were done using scorecard adopted from Nampil (2005) (Table 11). Various attributes which are key to every stage of the project cycle were analyzed and scored on a scale of 1% - 100%. For Instance, a score of less than 50% meant low community participation and a score of more than 50% meant high community participation. In this regard the level Community participation also has been part of this study while it involved application of community participation type and level at every stage of the project cycle.

Table 11: Scorecard for levels of community participation

No	Community Participation	Score
1	Very high community participation	80% - 100%
2	Generally high community participation	65% - 79%
3	High community participation	50% - 64%
4	Low community participation	21% - 49%
5	Very low community participation	10% - 20%
6	Non-existent community participation	1% - 9

Concerning the frequency or intensity of participation of locale people, in the project, social scaling of four was used and also the degrees of relationship between those socio-economic as well as culture factors and people's participation in afforestation planning meetings were explored by applying Pearson correlation co-efficien(r). **r**, can have a value anywhere between -1 and 1. The larger r, ignoring sign, the stronger the association between the two variables. At the other extreme, an r of zero implies an absence of a correlation there is no relationship between the two variables. On the other hand, a negative correlation means that relatively high scores on one variable are paired with relatively low scores on the other variable

Table 12;- Frequency of participation

No	**Frequency of participation**	Occurrence
1	Always	Every day participation
2	Often	Less participation as compared to participants who always involve.
3	Rarely	Less participation as compared to participants who often involve.
4	Occasionally	Less participation as compared to participants who rarely involve.

Table 13:- Summary of the sampling respondent for the questionnaire.

Sample kebele	Total households (HH) holds			Sampling households (HH)			Total administrators			Total development agents			Total NGOs agents		
Wolehe	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
	1122	402	1524	128	24	152	1	-	1	2	-	2	1	-	1

4.5 Data Analysis and Presentation

Data was collected using a standard questionnaire, key informant interviews and focus group discussions. The questionnaire contained structured and unstructured questions. Structured questions were accompanied by a list of all possible alternatives from which the respondents were able to select the answer that best described the situation. Where it was impossible to exhaust all categories, the study included a category 'other specify' to take care of those responses. All the quantitative data were entered in the Statistical Package for Social Science (SPSS). Microsoft-word; Microsoft-Excel and SPSS Program were used for data processing, analysis and interpretation of the information collected through questionnaire survey and interview. The results were then represented in the form of tables.

CHAPTER FIVE

RESULTS AND DISCUSSION

This chapter deals with data presentation, analysis and discussions of the findings that are employed through different research instruments or tools. As it is indicated in the methodology part, the target groups of respondents were rural households, woreda and Kebele officials, mainly sectoral office of Wolehe kebele Agriculture and Rural development, ORDA official's, village forest committee , locale community representatives engaging in the Addissan afforestation program. In order to get information about local communities' participation in various stages of the project cycle in the afforestation project, the respondents were requested to answer a number of questions on the different stages of the project cycle. There were 152 sample respondents and the analysis was made using the data obtained from interview administered face to face questionnaire, interview, focus group discussions and documents that have systematically been presented, analyzed and discussed in the following sections.

5.1 Personal Profile of the sample respondents

Background of the respondents is indicated interms of their age, gender, educational status, and occupation. Such information was needed to get some insight about the demographic characteristics and to how many of the respondents that education influences their participation to the study. As shown in (Table 14) below, out of the total sample respondents, 84.2 percent are males and 15.8 percent are females. Regarding age distributions of sample respondents; 9.8 percent are in the age that ranges from 20-24years; 12.5 percent are in the age that ranges from 25-29 years; 21 percent are in the age that ranges from 30-34 years. 23 percent are in the age that ranges from 35-39 years; 12.5 percent are in the age that ranges from 40-45 years; 7.8 percent are in the age that ranges from 46-50 years; 8.5 percent are in the age that ranges from 51-55 and 4.6 5ercent of them are above 55 year of age. With regard to the level of education almost all (94. %) of the respondents were no education and 4.6 % received religious schooling and 1.3% the sample respondents have attended elementary level of education .The most common occupations of respondents were working in farming (agriculture) 88.1 %, daily laborer (6.7. %), local

traders (1.9%), and civil servants (0.65 %) and 2.6 % of the respondents engage in livestock rearing.

Table 14:- Rural Households in Sekota is adjoining Woreda Wolehe kebele by Sex, Occupation, Age and Education

Description		Type of the respondent	percent
		Rural house holed	
Sex	Male	128	84.2
	Female	24	15.8
	Total	152	
Occupation	farming (agriculture)	134	88.1
	daily laborer	10	6.7
	livestock rearing	4	2.6
	local traders	3	1.9
	Civil Servant	1	0.65
	Total	152	
Age	20-25	15	9.8
	25-29	19	12.5
	30-35	32	21
	35-39	35	23.
	40-45	19	12.5
	46-50	12	7.8
	51-55	13	8.5
	>55	7	4.6
	Total	152	100
Education	No education	143	94
	religious schooling	7	4.6
	Elementary	2	1.4
	Total	152	100

Source: Sample survey

Therefore, from this data, it is understood that the majorities of households are no

education and even few in number have different religious educational backgrounds, therefore they were unable to understand the questionnaires offered to them to give the required answers. As a result, the researcher has gone in person to villages or *"gottes"* of the residents and completed all the questionnaires by face to face interview and has collected all information for the study.

Total number of interviewed sample respondents was seven, this are kebele administration chair man, and development agent, ORDA extension worker , elected committee, woreda DA supervisor and two local representatives, all of them are males.

During the consultation nine focus group participates involved. In terms of composition three from administrative key informants, (elected committee), three composed of community local representatives including elders (men and women) and tree local peoples (one farmer, one wood seller, one charcoal seller). From Out of the total sample respondents, in the FGD 83.3 percent are males and 16.6 percent are females. In addition, to this, the level of their educational background, was better therefore, it was good for the respondents to understand the questionnaires and actively participate in the agenda of discussions and in order to provide relevant information for the study.

5.2 Community participations in Sekota adjoining woreda Wolehe Kebel Addissan afforestation project.

5.2.1 Project Identification Stage

Survey results indicated that 99.35 % of the rural households respondents did not participate in the development of the projects' proposals in Wolehe Kebele, Addissan afforestation project (Table:15).

Table 15:-Rural Households response on project proposal

Are you involved in the preparation of project proposal?		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	1	0.65
No	151	99.35
Total	152	100

Source: (Survey data, 2012)

And when they were asked whether they accessed the project proposals, again 98.1% of the respondents said no. (Tabele: 16)

Table 16. Rural Households response on accessing the project proposal

Are you accesses the project proposal?		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	3	1.9
No	149	98.1
Total	152	100

Source: Sample survey

A good number of respondents, 93.5%, indicated that the projects did not carry out community needs assessment before starting to implement activities (Table 17).

Table 17 . Rural household response on need assessment

Are you involved in the need assessment of project?		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	10	6.57
No	142	93.5
Total	152	100

Source: Sample survey

Apart from needs assessment, the respondents were further asked to indicate whether they were aware about who selected the projects' sites. This question was aimed at finding out if community members were given the opportunity to share their ideas with project management called woreda, and kebele administrative, sectore of woreda and kebele agriculture and rural development office and organization for rehabilitation in Amhara region (ORDA) bout which areas deserved priority intervention. According to the results, 97.3% of the respondents indicated that projects' management were responsible for site selection (Table 18). Again majority, 98.7%, of the respondents reported they were not aware of any meeting where the projects' management discussed issues related to site selection with the community. In order to get more information on selection of project sites, the respondents were asked to indicate whether they knew the criteria as to why the projects might have used in the selection of the project site. Majority, 96.9 %, of the respondents indicated that they did not know the criteria used but somehow thought that the project might have been chosen the sites because of the rampant problem of soil erosion.

Table 18 :-Rural Households response on project site selection.

Are you involved in the site selection of project?		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	4	2.7
No	148	97.3
Total	152	100

Source: Sample survey

And when they were asked whether to agree or not for the demarcation of the area which is closed, again 54.4 said no because some members of the community the project area serves

to produce different fruits form the forest as only means of livelihood while many other members of the community assert that it is an area by from which they cop-up with problems resulting from drought by of sealing fuel wood, charcoal and hay until the next crop harvest is ready. Apart from project demarcation the respondents were further asked to give reasons for their non-participation in project proposal need assessment, site selection and demarcation because there is a general assumption that several factors like institutional, legal, economic, social, political and cultural factors play a role in influencing on the participatory process in projects (Wilcox. 2003). About 99.35 % indicated that they never participated in the project proposal for the fact that they had never been invited to take part in.

To strengthen, the reasons for their non-participation in the project identification, community key informant respondents were asked, to give the reasons and the given reasons are:-communities had never been invited to take part in probably because of firstly scatter settlement, inaccessibility of information, miss dissemination meeting announcements, passiveness of elected committee members and in accessibility of decision documents. These are perhaps the major reasons. On the other hand some people have no time to get involved in community participation activities due to engagement in their privet jobs. According to other key informant interview participant's response, the main problems faced in Wolehe kebele Addissan afforestation project was first these project proposal initiatives are still only parts of the government officials it does not yet include part or the whole community in the plan inception as a result people are not aware of the activities initiated. Second, the local committee lacks organizational and management skills.

Regarding to project identification stage consultation was done through focus group discussions. During this consultation nine focus group participates involved and more of an exploratory type of consultation was undertaken near to the project site.

The focus groups were first given an explanation of the purpose of the meeting. In the introduction it was emphasized that the government and ORDA strongly believe in that communities at the grass roots level should take a major part in the overall development process from diagnosing local environmental problems, laying down priorities and drawing plans of action to the later stage of implementation and thus to the sustainability of projects out of the rooting sense of ownership in the community. And their active and sincere participation in the

discussion is very important. Hence then they were consulted on different topics with regard to;-

- Historical perspective.
- Need assessment
- Criteria for site selection ,Site selection and Demarcation
- Project proposal development

Since there are similarities in responses by the FG participants, the Responses are summarized below but no role of each group participants in person is separately reported. The results of the discussion are as follows:

5.2.2 Historical perspective.

In the trend analysis elders described how the natural vegetation condition in Addissan hills has changed over the last few decades and what pressures or factors caused these changes. In the sites they indicated that, when land was privately owned during the Imperial (Haile Selassie) regime, some 30 - 35 years back, the natural vegetation covers was abundant and areas were covered with thick forests and there were lots of wildlife including tigers. Different tree species that were used for constriction of churches, fuelwood and wild fruits were abundant. Since the land was owned by landlords, they were strictly controlling the cutting of trees. After the fall of the Imperial regime and the emergence of the socialist military regime (Derg), land was nationalized by the Government and this has led to a loss of sense of ownership and as part of the open access regime the "tragedy of the commons" occurred that led to the destruction of the forests including the wild animals. This period was further affected by the drought and famine that had occurred during this period and the community was generating its income through sale of wood and charcoal by destroying the forest.

During the current regime (EPRDF), recurrent droughts, increased population pressure, poverty and lack of ownership have further aggravated the situation and the natural forest degradation has even gotten worse.

5.2.3 Project proposal consultation

Regarding to the project proposal development participation, different opinions were raised between, elected committee, and local community representatives and local peoples participating in the fours group. Elected committee participants raise an argument that that , local peoples in the community , local community representatives, government officials and ORDA experts including themselves involved in the 2002 addissan afforstation project, need assessment, site criteria selection, site selection, and site demarcation for project. While, locale community representatives and local peoples participating in the focus group discussion raise a counter argument that almost all of communities, including the selves have not conscious enough awareness about project identification need assessment, criteria for site selection, site selection, and demarcation. From this we can drown an inference that most the activities in the project identification were done by project management and majority focus group participants believe that genuine and practical participation were not commence during program project identification.

With some similarty but by major opposetion to FGD, both kebele chair man and ORDA extention expert explaned that technical and communicative study of the project identification (need assessement, criteria for site selecton ,site selection, demarcation, feasibility analysis, focus group discussion with user group members to check their interest and the motive behind the management of the forest resource) was done by community representatives, locale level forest committee and staff from sector offices of the Woreda and ORDA. This activity was later visited at the presence of the Zonal, Woreda, and ORDA and consensus was reached by all internal stakeholders (organizational units inside the program) on the potential use and suitability of the site for project implementation and the community as major actor in the project implementation. Later on, the whole community of the kebele was invited to comments on the decision and majority of local people's agreed on the decision the site selection. After confirmation of the project site by all stakeholders (Internal and External Stakeholders) then the project site was re-visited in order to reach a decision against the criteria for the very selection of the site and demarcation was done by village forest committee elected by the communities, woredas and kebele government sector office representatives and ORDA. The project boundaries have been delineated and

approved by both local and regional authorities, and the involved communities. Map was produced for the site by ORDA GIS staff.

Accordingly, Woreda DA supervisor and Wolehe kebele development agent interviewees informed that there were several institutional challenges that the program faced at its project identification stage this challenges are scatter settlement or distant of villages, lack of roads for vehicle transportation, communities dependency to aid and mentality, lack of local media advocacy and entertainment education in community forest development, inadequate participation and lack of sense ownership of the community in development efforts are the dominant challenges alluded by both experts during the program project identification.

According to them, However, religious leaders (priests and imams), community elders, organization like churches and mosque, market place, inauguration ceremony, holidays, funerals, and "Hiwas"(cell) villagers' members play great role in releasing information. Meaning traditional communication is the best and the most effectively used approach by local government and ORDA in mobilizing the direct beneficiaries of its program. The reason behind was approaching the community through the most influential parts whom the dwellers respected, trusted and followed. Finally according to theme even if there was a challenge, local government and ORDA strongly made the communities at the grass roots level take a major part in the overall project identification stage from diagnosing local environmental problems or the need assessment, laying down priorities and drawing plans of action to the later stage of implementation and thus to the sustainability of projects out of the rooting sense of ownership in the community.

By-off from what is pointed out above, most participants in the sample respondent and the focus group participants generally indicted that they did not involved in the project identification. It implies that there has been to low community participation in the project identification stage since there was low community participation on proposal development, needs assessment and project site selection all constituting essential components of the project identification stage. The findings of this study are in agreement with findings of other researchers on community participation in the project identification stage. For instance, Wanyama (2003) carrying out a study of community based organizations (CBOs)

for sustainable development in Western Kenya, observed that 51.3% of the respondents did not participate in the development of the CBOs project proposals. Similarly, during an evaluation of 21 afforestation and agroforestry projects in Africa, Kerkhof (1990) observed that several of them e.g. Nyabisindu Agroforestry Project, Rwanda; Rural Afforestation Project, Zimbabwe; Village Afforestation Project, Tanzania and Turkana Rural Development Project, Kenya had failed because of lack of community participation in the project idnetification stage. Jansens and Wildemeersch (2002), writing a paper on social learning, active citizenship and policy making in urban forest planning in Ireland, observes that lack of community participation in project identification, through lack of prioritizing community needs, leads to improper targeting of project interventions in community forest management, consequently leading to non achievement of the urban forestry project objectives. On their part, Nair and Krishnakumar (2004) observed that because of active community participation in the project identification stage, Chevalakkonam water supply project in India was successful. Thus, 100% of the beneficiaries had participated at project identification stage of the water project. Nair and Krishnakumar (2004) observed that all other related water projects failed because the beneficiaries never, actively, participated in any stage of the projects, particularly, project identification. Waafas and Philleo (1992), during an analytical review of women environmental projects in India, also observed that those projects which were successful had active community participation in identification of the projects. Although the current study does not state that the afforestation projects in Adissan Wholehe have failed, it argues that the projects failed to effectively involve local community members in project identification.

In other world this implies that the project identification of the Addissan afforestatio program has lacked the following major components of effective participation program (James 2005). At community level, the program identification lacked:

- Public information or public relations duet this majority of the People did not participate for the fact that they did not receive complete and objective information up which to base their judgments and this remains an essential component of an effective public participation program. Studies from Lowndes (2001) have shown that being invited to participate can be a great motivator.

- High degree of openness and this lead to lack of trust to the institutions as well as in the program. It also leads to court litigation by which the community can challenge the project or which decisions can be based (and challenged in court).
- Improved quality of decisions and due to this lack most effective solution and new alternatives.Caused major cost and delay. Because Unilateral decisions are always the quickest to make but often very expensive to implement and The efficiency of making a decision cannot be measured merely in terms of time and costs, but also must take into account any delays or costs created by how the decision was made and Unilateral decisions may become tied up in controversy, delays, or litigation. Even if the decision is somehow implemented, the next time the program management needs something in that community, the process will start out with ill will and animosity.
- Consensus. A public participation program may build a solid, long-term agreement and commitment between otherwise divergent parties. This builds understanding between the parties, decrease political controversy, and legitimacy to government decisions.
- Increased ease of implementation. Participating in a decision gives people a sense of ownership for that decision, and once that decision has been made, they want to see it workable. It is not only their political support for implementation. But groups and individuals may also enthusiastically assist in the effort.
- Avoiding worst-case confrontations. Once a controversy becomes bitter and adversarial, it is much harder to resolve the issue. Public participation provides opportunities for the parties to express their needs and concerns without having to be adversarial. Early public participation can help reduce the probability that the community will face painful confrontations. Nevertheless, public participation is not magic; it will not reduce or eliminate all conflicts.
- Maintaining credibility and legitimacy. The way to achieve and maintain legitimacy, particularly when controversial decisions must be made, is to follow a decision- making process that is visible and credible with the public and involves the public. Public participation programs will also leave the public more informed of the reasoning behind decisions.
- Anticipating public concerns and attitudes. As the agency's staff works with the public in public participation programs, they will become increasingly sensitized to the public's concerns and how the public views the agency's operations. These views are often

internalized, so that staff is more aware of the probable public response to the agency's procedures and decisions even when the issue is not large enough to justify a formal public participation program.

- Developing civil society. One of the benefits of public participation is a better educated public. Participants not only learn about the subject matter, but they also learn how decisions are made by their government and why. Public participation trains future leaders as well. As citizens become involved in public participation programs, they learn how to influence others and how to build coalitions. Public participation is training in working together effectively. Today, individuals may represent only groups or interests. Tomorrow, they form the pool from which regional and national leadership can be drawn. Through public participation, future leaders learn the skills of pulling together to solve problems.

5.3 Community Participations in Sekota Adjoining Woreda Wolehe Kebele Addisan Afforestation Project.

5.3.1Planning Stage

The survey results indicated that community participation in the project planning stage was also low just like in the project identification stage. For instance, when the respondents were asked to indicate whether they participated in any project planning meeting, 51.3% of the respondents did not participate in the project planning meeting. From this 19(12.5%) respondent are female (Table.19).

A saying from one community representative in the kebele would substantiate this fact:

"It is true that we did not participate in the project planning meeting related to our locality's afforestation program. Because, the woreda, kebele, and ORDA officials were not able to come up with the program documents and we did not discuss on it"

According to another key informant interview report, regarding to the afforstation planning meeting , locale people and other concerned stakeholders participate in project planning meetings. However mass participation of the whole community and especially female's participation in project planning meetings has seen very low and need to be promoted because it helps the sustainability of the project.

Table 19;- Locale peoples participation in project meeting

Community involvement in the project planning meeting.		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	74	48.7
No	78	51.3
Total	152	100

Source: Sample survey

Concerning the frequent of participation of locale peoples, respondents also asked to indicate the frequency of their participation in the project meetings. According to the result, 32.9% of respondents involved always, while 8.5 per cent participated often (Table 20).

Table 20:- Frequency of local people participation in meetings concerns local afforestation planning meeting.

#	**Frequency of participation**	**Occurrence**	**Frequency**	**%**
1	Always	Every day participation	50	32.9
2	Often	Less participation as compare to participants who always involve.	13	8.5
3	Rarely	Less participation as compare to participants who often involve.	7	4.6
4	Occasionally	Less participation as compare to participants who rarely involve.	4	2.6

Source: Sample survey

(Note: Criteria for assessment of intensity/frequency of people's participation was *according* to four social scales consisting of: *always, often occasionally* and *rarely).*

In relation to community's knowledge with regard to the projects' life spans, 92.2% of the respondents indicated they did not know the projects' lifespan. Again the researchers sought to find out whether the community voice was heard and adopted in the plan or not. Following this the researcher found that majority of the respondents 46.1% says no (Table 21). On the other hand government key informant interviewee, oppose the idea that locale people voice was not heard and adopted in the project planning meeting. The interviewee insists that participatory strategies employed in project were based on the Constitution of Ethiopia and equal chance as to the dialogue was given to all participants. But it is of purely optional or their interest to participate in the project planning meeting. By continuation of

his idea he strengthens his argument that he has even seen the chances given to communities and concerned stakeholders to actively and freely participate in the project meeting and thereby give whatever opinion they feel. In contrary , community key informant interviewee, counter claimed that local peoples were not expressing their views and ideas freely in the meeting as oppose to what is explain by the government key informant by putting the main reason for local peoples not giving their opinion in meetings. Accordingly this reasons steam from several grounds. Firstly, local community learned in the past meetings that giving comments or not does not produce significant change on the plan or in the program. Due to this communities were not interested to giving opinion in meetings i.e. government has ignored their comments in the past meetings and consider their comments are valueless. Secondly fear of the local political situation which has an impact on becoming member or non member of the ruling parity and thirdly level of their education affected the community's engagement or not to give their opinions during meetings.

Table 21; Community opinion and views

Adopting and incorporating Community opinion and ideas in project planning meeting		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	80	53.9
No	72	46.1
Total	152	100

Source: sample survey

Respondents also were future asked to give reasons for their non-participation, 1.3 % of the respondents indicated that they were not aware of when planning meeting was carried out. About 0.65 % indicated that they never participated in planning meetings because they had never been invited to take part in. About 4 % indicated that they never participated in planning meetings because they had in private jobs to full fill household gaps. About 45 % indicated that they never participated in planning meetings because of complaint against members/project of agriculture and social protection (PSNP) projects and food-for work and they are not selected for PSNP program and food- for-work projects in the previous programs (Table 22).

This socio-economic factors have produced negative impact in the participation of planning meetings' quote from a community key informant in Wolehe kebele would support this idea:

> *"The local community is too poor. Many of us don't have constant source of income .Many of us are illiterate. Many of the youth in the kebele lack fertile lands. Hence, we spend most of our time in trying to get little money to feed ourselves and our children. Rather would prefer to participate, if different incentive based packages such as PSNP and food-for-work were incorporated in the afforestation program. A community informant also suggested that the definition of participation for the community understanding is simply contribution for activities of incentive generation. Majority of the community also affirmed the same.*

Table 22; - Socio-economic factors that influence participation in the meetings

Factors	**Frequency**	**Percent**
House hold income	6	4
Information gap/ Non	1	0.65
deliberate missing	2	1.3
Religion		-
Other programs" agriculture and social protection or ('safety nets)" and foor-for-work	71	46.7
Total	80	52.4

Source: sample survey

As explained by many of the community key informants, the wealth of individuals has got its own impact on their willingness to participate in the community afforestatom program. In this study the relationship between the socio-economic factors and people's participation in afforstation planning meetings was explored applying the Pearson correlation co-efficient. These socio-economic factors included: Household income, information gap, deliberate missing, and other programs having source of incentive based packages undertaken in the community such as Productive Safety Net Programme (PSNP) and food- for- work. Accordingly a result of the relationship shows that R is equal to 0.79(Table 23)

Table 23: Relation between socio-economic factors and people's Participation in the project meeting.

N=210		Discussion concerning/decision making	Factors
Community based the afforstation project	Pearson Correlation	1	.792(**)
	Sig. (2-tailed)		.000
	N	152	152
that influence participation in planning process (decision making, and implementation)	Pearson Correlation	.792(**)	1
	Sig. (2-tailed)	.000	
	N	152	152

Source :(sample survey, 2012)

It is to means that local people who had relatively better-off income tended to participate intensively and local people who are benefiters of agriculture and social protection packages and members of food-for-work also have relatively shown better participation. Similarly people who had better household income give more time to be involved in public planning activities than those in the low-income category. On the contrary local people who are not members of agriculture and social protection (PSNP) did not show willingness to contribute time in planning and implementation activities. Deji (2007) recommended that self-help efforts should be mobilized and encouraged through award of rewards for active beneficiary participation. He (2007) claimed that this would enhance sustainable development at the community level. Unlike Deji (2007) this study argues that the society should not be beneficiary of dependency creative rewards for the participation of community development

programs. Rather we should create sense of ownership in the mind of the community they will be benefited from long term developmental fruits of the program. Respondents also were future asked Socio-cultural associated reasons for their non participation in afforstation planning meetings. Education level influences to a greater extent. Majority of people assessed in this study were illiterate 143(94.7%). And when they were asked whether education has influence or not, again 98.1% of the respondents said yes (Table 24).

Table 24; - Education influences on participation in the project planning meeting.

Influences of education on participation in the project planning meeting		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes	149	98.1
No	3	1.9
Total	152	100

Source: sample survey

The study also confirms that there is a strong positive correlation between participation and education in planning meetings. Accordingly a result of the relationship shows that R is equal to 0.799 (**).This implies that local people who had relatively learned tended to participate greatly (Table 25).

Table25;-Relation between education and participation in community based discussion concerning the afforestation project.

N=210		Education	Project meetings
Educational Status	Pearson Correlation	1	.799(**)
	Sig. (2-tailed)		.000
	N	152	152
community based discussion concerning the afforstation project	Pearson Correlation	.799(**)	1
	Sig. (2-tailed)	.000	
	N	152	152

Source: Sample survey

The other factor examined in this part was cultural and woman participation. It was observed that for the majority of the respondent cultural did not affect their participation in the afforestation project meetings rather it encourages. Accordingly, 86.8% have agreed as culture has no effect on participating in meetings (Table 26). On the contrary gender bias participation has strong negative effect in the planning meetings and accordingly 84.2% say yes. Here both government and community key informant participants share the same idea in supporting positive influence of culture by saying "there is no any culture which negatively influences none involvement in planning meetings. Also there is no any religion which opposes participation in tree planting and protecting plants. Rather it supports or encourages because in the community today, remnants of the high forests are seen only around churches and mosques whereby not to cut trees is a strong tradition. In addition to this they believe that traditionally there was forest conservation and management practice in the community. However this practice is presently eroded either because of government administrative and the decline in the authority of the elders in the community.

Table 26;-Cultural influences on participation in the project planning meeting

Cultural influences on participation in the project planning meeting		
Rank Scale	Type of respondent, Rural Households	
	No. of respondents	Percent
Yes		98.1
No	3	1.9
Total	152	100

Source: sample survey

Similarly in this study the relation between gender and people's participation in afforstation planning meetings has explored applying the Pearson correlation co-efficient. Accordingly a result of the relationship shows that R is equal to 0.866 (Table 27) mean strong positive correlation; if women had got better-off a chance on their voices to be included in the decision making processes, they would have had a strong contribution in planning and implementation activities.

Table 27; - Influence of gender in community meetings.

		Community based discussion concerning the afforstation project	Influence of gender
Community based discussion concerning the afforstation project	Pearson Correlation	1	.866(**)
	Sig. (2-tailed)		.000
	N	152	152
Influence of gender	Pearson Correlation	.866(**)	1
	Sig. (2-tailed)	.000	
	N	152	152

Source: sample survey

Finally to understand the overall impression of the community regarding to clear cut legislation about the local community's ownership right to directly gain financial benefits from the grown forest trees, local communities were asked. About 93% of the participants said no and 7% of them don't know whether there is clear cut legislation about the local community's ownership right to directly gain financial benefits from the grown forest trees, or not. While both of them guessed that the forests belong to them and will be benefiting there from. Similar response, was shown by local communities , community key informants and FGDs respondents indicating that they were not well aware and confident that the forests belonged to them and were benefiting from them but they argued that plantation will benefit the local population for the construction of schools, health centers, farmers training centers and other social service rendering institutions.

From an in-depth interview with kebele chair man, it was perceived that the planning teams focused during planning meeting are; - the need of effective public participation, objectives and goals of the program, activity to be refined by public, responsibility of participant households and detail of participation plan are the major issues were discussed at planning meeting of the program to the local community. The planning team also explained that level of participation required for the program and how much participation is required by the local community was addressed during the planning meeting to the local community.

According to Village Forest Committee, explanation many of the local community were actively participating in the plan meeting and legitimate or authority was given to the local peoples and the plan was finally agreed by all stockholders.

The following table is a summary of the program planned for the five year of the project life span (Table 28).

Table 28:- Summary of the Addissan afforestation project plan.

ject r in G.C	# of gov't seedling &Nursery center	Capacity of seedling Production by gov't	# of ORDA seedling nursery center	Capacity of seedling Production by ORDA	Seedling per year
0-2011	1	452,000	2	220,000+450000 =690,000	1,142,000
1-2012		452,000		690,000	1,142,000
2-2013	2	750,00+250,000 +452,000	1	350,000+690,00	2,592,000
3-2014		452,000 +1,000,000		350,000+690,00	2,592,000
4-2015		452,000 +1,000,000		350,000+690,00	2,592,000

Source; - ORDA.2010

Again, although the current study does not say that the afforestation projects in addisan afforestation project had failed, it argues that the projects had failed to involve local community members in project planning. The study findings on community participation in the planning stage of the project cycle agree with findings of other researchers. Many authors observe that rarely do projects involve communities in project planning. For instance, Kerkhof (1990) observed that because of lack of community participation in planning of project activities, some afforestation projects e.g. Nyabisindu Agroforestry Project, Rwanda; Rural Afforestation Project, Zimbabwe; Village Afforestation Project, Tanzania and Turkana Rural Development Project, Kenya failed to realize their objectives. Kerkhof (1990) observed that there was no clear line of responsibilities for implementation of project activities in terms of how the communities were to be involved. Dhubhain *et al,* (2008) also observed that lack of community participation in project planning in Flanders, Ireland, led to a drag in project implementation in forest management in New market and consequently Newmarket lagged behind the other areas in forest management. Sowers *et.al,* (1994) observed that USAID was forced to shift from 'top-down' to 'bottom-up' approach

in technical service delivery in Nepal. In 'bottom-up' approach, farmers participated in planning of natural resource conservation activities. USAID experience in Nepal had shown, earlier, that lack of community participation in planning of natural resource conservation activities had led to poor achievement of objectives and impact. In contrast to Dhubhain *et.al,* (2008), and on a positive note, Nair and Krishnakumar (2004) observed that Pezhumkamukal water supply project in India was successful because 100% of the beneficiaries participated in planning of the project's activities. Sikka and Sharda (2002), writing on land and water care through participatory watershed management in India and Mural *et.al,* (2003), writing on joint forest management projects in India, both, observed that because of lack of community participation in project planning the projects were not successful. However, Sikka and Sharda (2002) and Mural *et.al,* (2003) failed to provide data to support their arguments about the extent and/or levels of community participation in the project planning stage but only gave general statements about the lack of it in project planning and how this contributed to the failure of the projects. Here in view of the community and FGD, we can also say that the Addissan afforestation project planning meeting seems only conducting public participation to fulfill regulatory requirements. Therefore for the fact that such an issue is open for controversy, a kind of such public participation will not be of worth credibility. As a result the program lacks public support from majority of the community or informed consent for a decision, however it is usually necessary to use a collaborative problem-solving approach to public participation, with the public having genuine influence on the decision. If no decision can be made until the parties actually enter in to the entire substance of the decision, then the situation requires that there should be an agreement. Full agreement usually requires a defined negotiation process, a manageable number of parties, well-defined parties, and parties able to make binding commitments or some external mechanism for binding the parties (Jemes 2005). To sum up, the above major effective participation component in which the Addissan afforestation program lacked during its project meeting are:-

At community level the program:

- Did not give the mandate to the majority of the decision makers who are in need to act so.
- Lacked well integration of public participation into the decision-making process.

- Lacked interested public to involve in every step of decision making.
- Lacked the target to ensure the involvement of local peoples in the program.
- Lacked multiple techniques and did not target at different audiences.

5.4 Community participations in Sekota adjoining woreda Wolehe Kebele Addisan afforestation project.

5.4.1Project Implementation Stage

In order to find out whether the local community members were implementing projects activities, the researchers sought to find out whether beneficiaries had established tree planting, and tree nurseries, had been trained on project implementation and management aspects. Consequently, the researchers asked the respondents to indicate whether they had established tree planting and nurseries to which 46.1 % of the respondents said no while 53.9% said yes.

Table 29;-Project implementation

Community involvement in the project implementation		
Rank Scale	Type of respondent, Rural Households	
	No. of	Percent
Yes	80	53.9
No	72	46.1
Total	152	100

Source: Sample survey

From those who participated 45.5 % of the respondents personally involved by contribute their labor in the implementation phase while 6.57% involved by of sending their daughter and 1.97% respondent provided suggestions. The major reason for contribution by the respondents is economic benefit (42.57%) from the program by ORDA called "food-for-work" based on the number of dates which they involve during the implementation. On the other hand of the total respondents 6.8 % had given participation contribution due to mere request of the local committee. Other reasons for participation included, following other villagers 3 %, personal commitment 1.9 % and social benefit 1% respectively (Table30).

This study agrees with (Gebremedhin and Theron 2007) on Galanefhi Water Supply Project in Eritrea because both programs used "involvement and top-down type of participation by which beneficiaries are to be manipulated, placated and consulted to participate in a project for the purpose of material benefits. This type of participation does not lead to sustainability or self-

reliance and is most reflected in Arnstein's (1969) ladder of participation as either degrees of tokenism or non-participation.

Table30:-Local people contribution and major reasons for planting trees

Type of contribution in the mentation by the local peoples	Major reason for planting trees, and tree nurseries participation.	Percent	
or (Head of HH)	Economic benefit (for food-for work)	45.5	42.5
or Son of the HH	Social benefit	6.57	1
	Personal commitment		1.9
	Following other villagers		3
gestion	Requested by the committee	1.97	6.8

Source :Sample survey

Majority, 53.9 % of the respondents reported that the project supported them by giving them materials for tree planting and establishing tree nurseries at the center and in the site. The Activities done by majority of the respondent during in the implementation were of two types. This are tree nurseries at the center and planting and stone terracing at the project site. The Activities in the tree nursery center includes collecting fertile soil form to center, ready the fertile soil for plastic bags, filling plastic bags with fertile soil, ordering the plastic bag in to rectangle shape, putting seed to plastic bag and protecting and watering the until it reaches seedling and transportation seedling. Regarding to the Project site the activities are ready holes to seeding, watering seedlings and stone terracing. A certain community participant explained that how much it is challenging activitie.

He says "*you do not know how difficult it is for the rural villagers to transport the seedlings to the project site. During the plantation season, the hillside usually muddy which creates additional challenge and all seedlings ready in every nursery centers to be planted have to be transported. Sometimes, people fall and get hurt and another time hundreds of seedlings might be destroyed.*"

During project implementation, local level project management committees at project sites are very important for the day to day management of project activities. The committees, not only help translate project jargon to the participants but also, help in management of resources. The researchers, consequently, sought to find out whether the projects had established local level project management committees to which 46. % of the respondents said yes. And when the respondents were asked to indicate whether community had been trained on afforestation activities and other project management aspects, 51.1 % of the respondents said yes. Here the respondents also indicated that the training was biased to tree nursery establishment and that issues such as group dynamics and leadership were not effectively addressed. It is also expected that in project implementation, various stakeholders come together and share ideas about the implementation of project activities. This is, usually, done in stakeholder forums where each stakeholder contributes ideas about the role they could play in the implementation of intended activities. The coming together of various stakeholders ensures that efforts are focused, duplication of effort is minimized and collaboration and partnership are encouraged for sustainability of development initiatives. Consequently, the researchers sought to establish whether the issue of stakeholder forums was addressed by the projects. According to 41.3% of the respondents, the projects never held stakeholder meetings with 80.7% of the respondents reporting that the level of collaboration between the projects was poor.

From an in-depth interview with village forest committee, it was perceived that in early stage of the project identification and planning, the program faced inadequate participation however during the implementation things want right as compare to identification and planning. Similarly, ORDA expert in support of this idea said that before this afforestation program the study area has less experience in participating local peoples in afforestation project identification, planning and implementation while communities are involved in destruction rather than protecting the work of government and ORDA due to this most of afforestation activities in general were not successful.

This non involvement by the community in afforestation was due to less awareness on the benefit of community participation in afforestaton by both the government and NGOs

like ORDA and by the community and this has many grounds. In on one side the communities were not aware of the benefit of community participation in afforestaton programs, community lacked power to influence activity done only by government, reminding that afforestation was perceived by the majority as a government or ORDA task, past communal attitudes , the blind disregard of the views, disinterest of the rural people, and dependency attitude or mentality by the community for aid for example when ORDA arrived there with some resources, almost all the rural dwellers thought that it came to donate some aids and things did not go right at the beginning. But, through religious leaders (priests and imams) and community elders, the organization had to explain that it came to do forest rehabilitation at the hills collaborating with local government and the community. These explanations also added that every individual of the community would be paid (in kind) for every small job that he would contribute in the forest development activity.

According to ORDA expert it is now a day's better time to run things as right as possible. The expert also emphasized that ORDAs vision in relation to forest development and other programs was meant to change the poor community's dependence attitude on entirely natural resource (forest) exploitation by providing aid in return for the activity that the community dose for better environmental protection eventually it was also meant to totally avoid dependency of the community on aid. As he stressed, for the sustainability of the rural poor as well as its projects, ORDA give more attention to social dynamics and software aspects rather than hardware aspects. There for this are the generally the major factors for non participation of local people in afforestation programs. On the other side government lacks structure to involve the local peoples to take a major part in the overall development process, by diagnosing local environmental problems, laying down priorities and drawing plans of action to the later stage of implementation and thus to the sustainability of projects out of the rooting sense of ownership in the community. This are also the major problem the government face confrontation from none participation of the local people.

To concludes, community participation in community forest development programs at early stage was discouraging. However it was in the year (2010 G.C) that the local government, ORDA and the local community started forest development activities including the Addissan afforestation project area and other activists like stone-terracing. In general in

the study area and particularly in Addissa afforestation program the project came about being successful due to public participation in the project identification, project meeting and implementation for example Addissan afforestation program has completed 19.9% of its activity with the two year program life span(2010-2012 G.C). In relation to the above point Woreda development agent supervisor and kebele development agent revealed that in almost all rural villages of Sekota adjoin woreda (including the study program), the experiences with area enclosures is encouraging. Moreover, government and ORDA informants said that the stone-terracing and the community forests in the study sites were developed through participation and these seem to be some of the success factors of all the changes in the areas. This is due to raising awareness by community as to the benefit of participation in afforestation, creation of structure to participate local peoples in the overall afforestation programs by both government and NGO.

Generally as is earlier indicated above, it is understood by both parties (afforeatation program management and the community) that benefit of effective community participation is indispensable and hence is properly practiced. However they said in the contrary that dependency attitude or mentality, lack of awareness, lack of effective team effort, lack of technical experts, lake of publicity and media relations, lack of facilitation and lack of coordinating logistics activities, complain against for food-for-work elected participants by non elected one are still the major problems that were seen during the implementation. According to them other activities carried out by the project included construction of water tanks, (ten) seedling nursery site controllers and twenty one forest site controllers have been constituted for the afforestation work etc. Additional a system of informing visitors about overall activities of the program through photo galleries is already in place in the organization and **The following** Figures 9,10,11,12 and 13 are examples of photo galleries of the project here in below.

Figure 9:- Local community participation in seedling nursery for the addissan afforestation project. (Source; -ORDA's photo gallery 2010)

Figure 10: - Local community participation in site preparation in the project site. (Source; - ORDA"s photo gallery 2010)

Seedling nursery site: - In the year 2010-2011 and 2011-2012 G.C three seedling nurseries sites were constructed. From this constricted Seedling nursery sites, two of them were constructed by ORDA. One of this is found located to the west of project site. While

the other is placed approximately 50 meters from the nearly high way which makes it easy for transportation of seedlings. We can say that both of them are found very near or side by side to each other. This in-turn seems that it has an implication of wise nursery site selection and easy for any collaborative action between the two seedling nursery sites of ORDA. As the same time the third seedling nursery site constricted by the government is found considerably far to the later seedling nursery site constricted by ORDA. It walks down to the bottom of a moderately sloped hillside where there is a small river at the bottom. Each seedling constructed has a carrying/hosting capacity of 420,000, 270,000 and 452,000 seedlings per a year. In the years 2010/11 and 2011/12 total of 2,284,000 seedlings were prepared and 2,103,300 was ready for plantation and 2,000,002 were planted in the project site. Seedling ready to be planted, it has been assumed that a Single seedling costs around 18 Birr.

Acacia and Eucalyptus species are the dominant plantation species for the project area. In addition to the above mentioned seedling nursery sites, for the coming three years it is planed that (2012/13, 2013/14 and 2014/15 G.C) three new seedling nursery centers will be constricted both by the government and ORDA. Two of them are going to be constricted by the government while ORDA takes responsibility for the construction of the third one with the carrying/hosting capacity of 750,000, and 250,000 and 350,000 seedlings respectively (Table 28). (Source; - ORDA 2010)

Figure11:- local community participation in transportation seedlings to the project area. (Source; - ORDA"s photo gallery 2010)

Figure 12; - local community in planting trees in the project area (Source; - ORDA photo gallery 2010)

According to the plan of the project proposal a total of 10,060,000 seedlings are expected to be planted in Addissan affoerstation project site throughout the project life span (Table 28). And according to the program report currently most of the two year of the program activities have been finished.

Figure 13:- Addissan afforestation project site in the back ground. (Source; - ORDA.2010)

The above findings indicate that there was a fairly high level of community participation in the project implementation stage unlike in project identification and project planning stages. Studies done elsewhere also indicate that community Participation in the project implementation stage tends to be higher than in the other stages. For instance, Wanyama (2003), carrying out a study community based organizations (CBOs) in Western Kenya, observed that 94.6% of the respondents participated in project implementation. According to Wanyama (2003), community participation was high in project implementation stage because project benefits were, at least, probable or real unlike in the other stages. In this study, 53.3%, of the respondents reported that the projects provided them with materials for afforestation activities e.g. Tree nursery and woodlot establishment. Maraga et *al.* (2010), carrying out a study on the factors determining community participation in afforestation projects in River Nyando Basin observed that there was a strong positive relationship between community participation and the benefits farmers obtained from the afforestation projects. But in contrast to the current study and those of Wanyama (2003) and Matanga (2000), Kumar's (2007) findings from evaluation of 60 water user groups in 15 watersheds in the Coimbatore District, India, found out that community participation rate fell from 55% in project planning stage to 44% during the project implementation stage and finally to 27% during project maintenance stages. The explanation for Kumar's (2007) findings could be that water projects not only need high

capital outlay for implementation but also for maintenance of facilities. On capacity building, Matanga (2000) observed that 74% of the respondents participated in trainings organized by NGOs. The current study also observed that majority 51.1% of the respondents participated in trainings. Therefore, Matanga's (2000) findings agree with the findings of the current study. However, the current study found out that capacity building was skewed towards tree planting, care and management. On the formation of local level committees, Manikutty (1998), in his paper on community participation in five water and sanitation projects in India, noted that water projects in Kerala state had constituted democratic and strong committees and hence, the reason why they were successful. However, in the current study, it was observed that committee elections were irregularly held hence, creating room for possible discord. Thus, while a number of other researchers such as Chokkalingam *et al,* (2006), Pandey (2007), Shah *et.al.*, (2000) cited in APO, (2002), Bastidas (2004), Jansens and Wildemeersch (2002), Mweene (2006), Sowers *et al,* (1994), Westaneys and Woodley (1998) and Adeola *et al,* (2001) have also discussed the importance of community participation in project implementation and why lack of it in this stage of the project cycle has contributed to failure of projects, the authors have failed to provide data to support their arguments. And although this study focused on the success of the afforestation project in Wolehe Addissan afforestation site, and to provide data on community participation in the project implementation stage on which future studies may be built.

5.5. Community participations in Sekota adjoining woreda Wolehe Kebele Addissan afforestation project.

5.5.1Project Monitoring and Evaluation Stage

In order to get information about the role of local communities in monitoring and evaluation of the afforestation projects, the researchers started off by asking the respondents to indicate whether they participated in the monitoring and evaluation of project activities. Majority, 98.2 %, of the respondents indicated that they never participated in the monitoring and evaluation of the activities of the afforestation projects. When they were asked to give reasons for their non-participation, 69.2 % of the respondents indicated that they were not aware when monitoring and evaluation was carried out. About 29 % indicated that they never participated in monitoring and evaluation because they had never been invited to take part.

A note from a community key informant in Woleh kebele supports this idea:

"Incorporating the local community ideas in, monitoring and evaluation would help the the project managements to create sense of ownership up on the people and ensure the sustainability of the program, but the project management have not call us for information and meeting in monitoring and evaluation ."

Other key informant also quotes the following:

"Including the local people in monitoring and evaluation helps the community to discuss each other, to learn the past mistakes and best experiences of the project and the community itself. But the project managements have not called us for information and meeting in monitoring and evaluation."

Still on the issue of monitoring and evaluation, the researchers asked the respondents to indicate who they thought was responsible for the development of project monitoring and evaluation tools. Thus, 100% of the respondents indicated that the projects management was responsible for the design of the project monitoring and evaluation.

In addition, the researchers asked the respondents as to whether there was distribution of brief survey questionnaire or monitoring and evaluation forms as means of incorporating feedbacks by the Woreda and Keble administrative development agent, local committee and elected committee or ORDA experts of the village to local people and to those concerned. In this respect, again 98.3% of the respondents said no.

Additionally In order to still find out whether the respondents were involved in monitoring and evaluation, the researchers asked the respondents to indicate whether they had, at any given time, had access to the project monitoring and evaluation reports. Only 1.6 % of the respondents had accessed the project monitoring and evaluation reports of 2011 G.C.

In this stage focus group participants were also consulted on different topics including;- Major topics discussed during the consultation meeting were:

- Community participation in Project monitoring and evaluation and
- Communities commitments to the project M&E

Since the responses from focus groups participants have a lot of similarities, it is founded that unnecessary to report here one by one separately. Rather, references are made to the specific questions and divergent views. The discussion was started by emphasizing there

was both by the government and ORDA has firmly believe in communities' participation in monitoring and evaluation process of any development program and their active and sincere participation in the M&E is very important.

Accordingly, participants were asked as individual and community member whether they are involve M&E or not in of the afforestation project and there willingness to participate in the project M&E also assessed. The responses from the focus group discussions were that they fully accept the concept of the project monitoring and evaluation. However, in practice different views were raised and two groups with different idea were formed. Government and ORDA elected committee participants are the first group supporting the idea that all communities involved in M&E by meetings while the rest participants disagree with the first groups because they were not invited to meetings. However majority of community and focus group participants have indicated that community were not involve in M&E phase because of community were not aware of when monitoring and evaluation was carried out and had never been invited to take part in. In general, most participants indicted that they have not involved in the project M&E.

The above findings reflect low community participation in the project monitoring and evaluation stage. Studies done elsewhere, also indicate poor community participation in this stage of the project cycle. Unfortunately, almost all the studies have not provided facts in terms of figures to show how poor community participation was manifest in this stage but have only given broad general statements. For instance, Kerkhof (1990) observed that lack of community participation in monitoring and evaluation led to failure of afforestation and agroforestry projects in Africa. Kerkhof (1990) observed this in relation to an evaluation of 21 afforestation and agroforestry projects in Africa. Unfortunately, Kerkhof (1990) did not provide practical data to back up these claims. Sikka and Sharda (2002) and Kumar (2007), too, mentioned the importance of monitoring and evaluation and how lack of it has contributed to failure of projects; but like Kerkhof (1990), they also did not provide statistics to support their assertions. Nair and Krishnakumar (2004) attempted to show that some water projects in India had succeeded because of community participation in the monitoring and evaluation stage but they also did not give statistics to support their arguments

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Forest resources in Ethiopia have experienced so much pressure due to increasing need for wood products and conversion to agriculture. The trend in Ethiopia today is to protect the remaining natural forests for their various social, economic and environmental values. On the other hand, there is increasing demand for wood and wood products. To strike the balance between the two interests, afforestation/plantations is very important. Plantations are even-aged forest stands deliberately established by humans on formerly non-forested lands or deforested lands the purpose can be wood production or environmental protection under the ownerships of the private sector, individual farmers, the community, or the state. The size of plantations ranges from less than a hectare (e.g., *Eucalyptus* woodlots) to several hundred thousands of hectares of land (large scale plantations). Size of large scale state or community plantations depends on whether the plantation is integrated with a processing industry (and thus with its annual intake of wood), availability of market or the wood requirements of communities (ECRN-UNDP, 2010). Ethiopia has a long history of tree planting activities. According to historical records, afforestation started in the early 1400s by the order of King Zera-Yakob (1434-1468). Modern tree planting using introduced tree species (mainly Australian *Eucalyptus*) started in 1895 when Emperor Menelik II (1888-1892) looked into solutions for alleviating shortage of firewood and construction wood in the capital, Addis Ababa.

However, the historic rapid expansion of large scale and community plantations occurred during the Dergue regime, which resulted in the establishment of large scale plantations. Several fuelwood projects funded by UNSO, UNDP and FINNIDA spread over the country with marked concentrations around big cities such as Bahir Dar, Dessie, Gondar, Nazareth, Addis Ababa and Debre-Berhan (Breitenbach, 1962). These plantations have often been established for supplying the huge demand for wood products in Ethiopia. Today, tree plantations cover approximately 500, 000 ha (WBISPP, 2005), out of which 133,041 ha were established as community plantations between 1978 and 1989. *Eucalyptus species* (58%) and *Cupressus* (29%) are the

dominant plantation species. Other species include *Juniperus procera* (4%), *Pinus* species (2%) and the rest (7%). The results presented and discussed in the preceding section have provided data on the nature of community participation in the different stages of the project cycle. Addissan afforestation Project is joint project by government and ORDA (a local NGO) with the close involvement of local peoples. Which is located 35 kms from south of the capital of the adjoining woreda Sekota and 13 km from wolehe kebele administration. Which is an integrated part of the zonal, woreda and kebele plan for being implemented from 2010/11 – 2014/15 G.C. The project site comprises an area of 4,710 hectares. The area where the project is implemented (as with all land in Ethiopia) is the property of the Federal Government of Ethiopia and the project land is administered by Wolehe kebele. The land is 'communal land' or "Communal holdings" and management of the land is not allocated to any individual, group or organization. The land is degraded and is utilized *ad hoc* by community members for fuel wood collection, charcoal making, and grazing by the surrounding community.

Based on the community participation, the research concluded that

- Public Information or Public Relations to provide complete and objective information for the public, improved quality of decisions to obtain most effective solution and new alternatives from the public, high degree of openness or trust to the institutions as well as in the program, consensus building like solid, long term agreement, decreased controversy, legitimacy to government decisions and commitment between otherwise divergent parties, program for project identification, planning, implementation and monitoring and evaluation stages at community level, are very essential component of an effective public participation program however Addissan afforstatio program lacked this essential component of an effective public participation program since most of participants in the sample respondent and the focus group participants generally indicted that they did not involved in the project identification, planning and M&E.
- It implies that there has been to low community participation in the project identification stage (proposal development, needs assessment, project site selection), planning meeting (detail project activity, project life span) and monitoring and

evaluation all constituting essential components of the project identification and planning stage.

- Because majority of the local people did not participate for the fact that they did not receive complete and objective information for Project identification and 1.3 % of the respondents indicated that they were not aware of when planning meeting was carried out. About 0.65 % indicated that they never participated in planning meetings because they had never been invited to take part in. About 4 % indicated that they never participated in planning meetings because they had in private jobs to full fill household gaps. About 45 % indicated that they never participated in planning meetings because of complaint against Members and the project itself for agriculture and social protection (PSNP) projects and food-for work and they are not selected for PSNP program and food- for-work projects in the previous programs.
- Here in view of the respondents from the local people and FGD, we can also say that the Addissan afforestation project identification and planning meeting seems only conducting public participation to fulfill regulatory requirements. Therefore for the fact that such an issue is open for controversy, a kind of such public participation will not be of worth credibility. As a result the program lacks public support from majority of the community or informed consent for a decision, however it is usually necessary to use a collaborative problem-solving approach to public participation, with the public having genuine influence on the decision (although the program management retains final decision-making authority)
- How ever there was a fairly high level of community participation in the project implementation stage unlike in project identification and project planning stages. The major reason for contribution to Addissan afforestation project implementation activity by the respondents are economic benefits 42.57% from the project(food-for-work) by ORDA based on the number of dates which they involve during the implementation. On the other hand of the total respondents 6.8% contributed due to mere request of the local committee. Other reasons for contribution to participation included, following other villagers 3%, personal commitment 1.9% and social benefit 1% respectively. The Factors determining community participation in

afforestation projects in Adissan Wholehe was a strong positive relationship between community participation and the benefits farmers obtained from the afforestation projects.

- Unfortunately, the finding of Adissan afforestation projects also reflects low community participation in the project monitoring and evaluation stage. Studies done elsewhere, also indicate that poor community participation in this stage happens to be low. Again unfortunately, almost all the studies did not provided facts in terms of figures to show how poor community participation was manifested in this stage but have only given broad general statements.
- The finding it also indicated that there are traditional administrative setups in the community for forest conservation practices like area enclosures"kilkil". If these traditional practices however are integrated with modern afforestation efforts, it will greatly support the conservation of forestry project in site.
- Many of the Addissan afforestattion program management said that before, study area had less experience in participating local peoples in afforestation project identification, planning, implementation and monitoring and evaluation while communities are involved in destruction rather than protecting the work of government and ORDA due to this most of afforestation activities in general were not successful. On the other side government lacks structure to involve the local peoples to take a major part in the overall development process, by diagnosing local environmental problems, laying down priorities and drawing plans of action to the later stage of implementation and thus to the sustainability of projects out of the rooting sense of ownership in the community. These are also the major problems that the government face confrontation from non participation of the local people. To conclude, community participation in community forest development programs at early stage was discouraging. However it was in the year (2010 G.C) that the local government, ORDA and the local community started forest development activities including the Addissan afforestation project area and other activists like stone-terracing. In general in the study area and particularly in Addissa afforestation program the project came about being successful due to public participation in the project identification, project meeting and implementation for example Addissan

afforestation program has completed 19.9% of its activity with the two year program life span(2010-2012 G.C).

- The management group however said that it is not implied that things are currently completely right. For instance community's dependency to aid and mentality, inadequate participation lack of awareness and lack of sense ownership of the community in the afforestation development efforts are the dominant challenges still requiring additional efforts.
- Finally the current study does not state that the afforestation program in Adissan Wolehe has failed, however it argues that the program failed to effectively involve local community members in the program even though government and ORDA key informant indicated that performance of project has been completed the two year project goal by 19.9% through active participation of the local community of Wolehe kebele . In other worlds this implies that the program of the Addissan afforstatio program has lacked major components of effective participation program and this was supported by evidence from interviewer-administered face to face questionnaire from the local people, interview from community representatives, from FGD participants and interview from some program management respondents.

6.2 Recommendations

This section basically raises three issues which are considered to in three parts the first part provides certain recommendations to strengthen community participation in key phases of a afforstation program based on the findings from this article, the second gives suggestion for improvement and the third is areas for further research.

Recommendations for community participation in key phase the program

- It is suggested that the program should as much as possible involving the whole community in the three stages of the project cycle (Identification, planning and monitoring and evaluation)
- As the same time it is suggested that the community should be given the opportunity to reach at list majority agreement in project identification particularly in site selection with the a view to alleviating possible controversies in the near future the community also should be given the mandate in decision making and well integration process in the decision making in a manner that the community is fully consulted, should be there with as well.
- Again there should be Awareness creation about the benefits of sharing decision making and incorporating local people's opinion and create sense of ownership
- Communities at the grass roots level should take a major part in the overall of project activity.
- The deselected and selacton of members of the community for food-for-work should be in line with justiseable distribution procduer as possible as it cloud be done on the same token it is advisable that both deselected and selected members should equally protect the program as if they are joint owners of the project.
- Communities should know in advance with clear cut legislation about the local ownership right to directly gain financial benefits from the developed forest trees.
- Since Women participation is very low, it should be promoted further in order that the project at the end should be inclusive.

Suggestion for improvements

Local government officials and ORDA also need to take the following measures;

- Officers should be provided with adequate resources more so means of transport plantation inputs.
- Arranging transplanting time base on the local people's interest to avoid coincidence with peak periods when demand for labor is highest from farming and other agricultural activities. This will demand that farmers adjust and plan activities on their farms properly.
- Finally it is indicated that there are traditional administrative setups in the community for forest conservation practices like area enclosures"kilkil". But their ultimate authority is currently of very minimal role as a result of by the modern administrative setups. If these traditional practices however are integrated with modern afforestation efforts, it will greatly support the conservation of forestry project in site.

Areas for further research

The following areas need to be addressed by researchers;

There is need to carry out a detailed study in the Addissan afforestation program on the following areas;

- Factors such socio-economic constraints to community participation were poor land use planning, shortage of labor, capital, family size, small land sizes and insecure land tenure and resource use competition between cash crops and trees need to carry out.
- Tree species preferred by the local community and Indigenous knowledge on tree compatibility are required to be carried out.
- There is also a need to carry out a study on tree species that can be compatible to the environment
- The research finally suggests that there should be appropriate cross check by going to the site in person as to whether the seedlings are properly wedged and survived so that there will be pragmatic correspondence to the program plan at hand.

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Appendix I

Addis Ababa University

Center for Water, Environment and Development studies

Part I

Questionnaire for government and ORDA administrative level participants

English Version of the Questionnaire

The role of community Participation in afforestation project: the case of Sekota adoining woreda Addissan afforstation project.

Dear respondent,

This questionnaire is prepared to gather information about afforstation practices, intensity of people's participation and contributions useful for the protection and maintenance of your environment. In answering my questions, please remember that there are no correct or wrong answers. I am just after your honest opinion. This information will used for academic propose which mean it extremely confidential.

Thank you for your time and cooperation!

Yideg Alemu

Part I. Socio-demographic information

Name---------- ----------

Sex---------- Age ----------

Woreda ----------

Kebele ----------

Ethnicity----------

Study code #: ----------

Part II. This part of the questionnaire is design to assess community participation at Sekota adjoining woreda addissan afforstation project.

1. How do you define community participation in afforestation project?

2. Do you believe the Addisan afforestation project is jointly project with ORDA?

A. Yes ☐ B. No ☐

3. If your answer for question # 1 is "Yes", would you please give reasons?

_____

4. If your answer for question # 1 is "No", would you please give reasons?

_____

5. What are the main reasons Addisan afforestation project as priority areas that is given

Emphasis in the plan? And why?

_____

_____

6. Do you think that afforstation project is designed in the context of the environment? (woreda)?

A. Yes, why? _____ B. No, why? _____

7. Do you think that the afforstation project is participatory?

A. yes, why_____ B. No, why_____

8. What type of community participation is used?

A. citizen control ☐ B consultation ☐ C. manipulation ☐

9. How can the community get informed about the afforstation project?

A. Using mass Medias (printing or audio video i.e TV or community radio) ☐

B. Public meetings ☐

C. Through trainings or workshop ☐

D. Through other social networks like Church, Mosque and 'eder' services ☐

E. Others ☐

10. Do you have methods of monitoring and evaluating the implementation of afforstation project?

A. yes ☐ B. No ☐

11. What are the major problems in implementing the afforstation project?

_____

_____

_____

12. How do you solve implementation problems?

_____

_____

13. Do you think that the implementation was as successful as it was planed?

_____

14. Do you remember any change made on the plan as result of community feedback?

A. Yes:_____

B. No:_____

15. Is there stakeholder meeting takes place for addissan afforestaton projct.

A. Yes:_____

B. No:_____

16. What was the responsibility of elected representative of the in the preparation of the afforstation project?

_____

17. What are the roles government and ORDA with regard to community participation?

_____

18. What experiences have you learned in terms of community participation in the Kebele development?

_____

_____

19. How do you evaluate the project collaboration?

A=excellent ☐ B. very good ☐ C. good ☐ E. poor ☐ F fail. ☐

Give your reasons for your choice pleas_____

Annex-2

Addis Ababa University

Center for Water, Environment and Development studies

Part 2

Questionnaire for the Elected Representatives

English Version of the Questionnaire

The role of community Participation in afforestation project: the case of Sekota Adjoining woreda Addissan afforstation project.

Dear respondent,

This questionnaire is prepared to gather information about afforstation practices, intensity of people's participation and contributions useful for the protection and maintenance of your environment. In answering my questions, please remember that there are no correct or wrong answers. I am just after your honest opinion. This information will used for academic propose which mean it extremely confidential.

Thank you for your time and cooperation!

Yideg Alemu

Part I. Socio-demographic information

Name---------- ----------

Sex---------- Age ----------

Woreda ----------

Kebele ----------

Ethincity----------

Study code#: ----------

Part II this part of the questionnaire is design to assess the local level development plan at seekota woeda

1. Is there any criterion for election to be representative in the kebele development plan?

   A. Yes:_____ B. No:_____

2. Do you know have been the afforstation project undertaken in your community?

   A. Yes ☐ B. No ☐

3. What is your role in the afforstation project of the society?

_____

4. Do you involve in the addissan afforestaiotn project identification like site selection, criteria for site selection, project life span,and the whole project proposal?

A. Yes ☐ B. No ☐

5. If your answer is "yes" for question #3, have you conducted any community based discussion concerning the afforstation project before the implementation?

A. Yes ☐ B. No ☐

6. Are the local people involved in project identification, like site selection, criteria of site selection planning meetings and implementation?

A. Yes ☐ B. No ☐

7. If the answer is 'Yes' for question # 6, how are the local people be involved project meeting and implementation?

A. Yes ☐ B. No ☐

8. Are opinion of the community have properly integrated in the afforstation project meeting? ☐ ☐

A. Yes B. No

9. Are your opinions considered properly in project planning as well implementation?

A. Yes ☐ B. No ☐

10. Do you involve in mentoring and evaluation of afforstation project?

A. Yes ☐ B. No ☐

11 Are the local people involved in project M&E?

A. Yes B. No

12 If you have not involved, do you have the reasons?

_____

13. 15. Is there stakeholder meeting takes place for addissan afforestaton projct.

A. Yes:_____

B. No:_____

14, How do you rank level of collaboration between the community and projects management

A. excellent ☐ B. very good ☐ C. good ☐ E. poor ☐ F. fail ☐

Reasons for your choice pleas_____?

15. Is there any evidence- where local people disagree/reluctant in participation of project

Implementation activities or inclusion of Project Implementation Committee after being Requested by the representatives?

Yes ☐ No ☐

16. If your answer for question # 15 is "Yes", would you please give reasons? Why?

17. What are the factors that influence in participation of local people in Projects?

_____

18. What are the factors that influence in non-participation of local people in afforstation project? _____

19. What are your suggestions to incorporate all walks of people in the afforstation project?

_____

Annex-3

Addis Ababa University
Center for Water, Environment and Development studies

Part 3

Questionnaire for the Rural Households

English Version of the Questionnaire

The role of community Participation in afforestation project : the case of Sekota adoining woreda Addissan afforstation project

Dear respondent,

This questionnaire is prepared to gather information about afforstation practices, intensity of people's participation and contributions useful for the protection and maintenance of your environment. In answering my questions, please remember that there are no correct or wrong answers. I am just after your honest opinion. This information will used for academic propose which mean it extremely confidential.

Thank you for your time and cooperation!
Yideg Alemu

Part I. Socio-demographic information

Name---------- ----------

Sex---------- Age ----------

Woreda ----------

Kebele ----------

Ethincity----------

Study code number: ----------

Part II this part of the questionnaire is design to assess the local level development plan at seekota woeda

1. Occupation responsibility

Agriculture ☐ Business ☐ Service ☐ Labor ☐ Others ☐

2. Educational Status:-What grade did you complete----------?

General Questions about the afforstation project stage by stage.

Part two:- Project identification

1. Do you know anything about the plantation project which is take place in the adddissan?

A. Yes ☐ B. No ☐

2. Are you involved in the need assessment of project?

A.Yes ☐ B.No ☐

3. **Do you have involved in** meeting where the projects' management discussed issues related to site selection with the community ?

A. Yes ☐ B. No ☐

4. If your answer for question # 5 is "No", would you please give reasons?

_____

5. Do you know the criteria for site selection? ☐

A. Yes ☐ B. No

6. **Are you involved in the preparation of project proposal like site demarcation?**

A. Yes ☐ B. No ☐

7. Do you agree for the demarcation of the area which is closed?

A. Yes ☐ B. No ☐

8. If your answer for question # 7 is "NO", would you please give reasons?

_____

9. Do you have accessed the project proposals?

A. Yes ☐ B. No ☐

Part three:-Planning Stage

1. Are you involved in the project planning meeting**?**

A. Yes ☐ B. No ☐

2. If your answer for question # 1 is "Yes", would you please give reasons for your participation?

_____

3.If your answer for question # 1 is "No", would you please give reasons for your non-participation? _____

4. Do you engage in any other community based discussion or did you hear the afforstation project before the implementation?

A. Yes ☐ B. No ☐

5. If your answer for question # 3 is "Yes", would you please give reasons for your participation?

_____

6. What means of information used to announce or create awareness about the afforestation project ?

A. community meeting ☐ B. short term training ☐ C. Public announcement ☐

D. advertisement ☐ F .Other ☐

7. How often do you participate in meetings or concerns regarding local afforestation planning process

A always ☐ B occasionally ☐ C often ☐

D. rarely ☐

8. If your answer is always , what are your reasons? _____

Please specify if you choice other options_____, and why?

9. Have you discussed openly or did you think community opinion and ideas was heard and adopted in the in the plan of project?

A. Yes: _____ B. No: _____

10. 5. If your answer for question # 3 is "Yes", would you please think that your opinion is considered properly?

---

11. Do you know the projects' life spans?

A. Yes: ☐ how many? _____ B. No ☐

12. Is education influences your participation in the project planning meeting?

A. Yes: _____ B. No: _____

13.Is any culture which influences your participation in the project planning meeting?

A. Yes: _____ B. No: _____

14. Is gender which influences your participation in the project planning meeting?

A. Yes: _____ B. No: _____

15. Is there clear cut legislation about the local community"s ownership right to directly gain financial benefits from the developed forest trees?

A. Yes: _____ B. No: _____

Part four:-Implementation of the project

1 . Do you know anything about the plantation project which is implemented in the adddissan?

A. Yes ☐ B. No ☐

2. Do you involve in community training on afforestation activities and other project management aspects,

A. Yes, why: - _____

B. No, why:-_____

3. Are you involved in the project implementation**?**

A. Yes ☐ B. No ☐

2. Do you think that the projects undertaken in your locality have been implemented through participation of all?

A. Yes ☐ B. No ☐

3. What type of contribution has you provide in the implementation?

A. labor ☐ B. cash ☐ C. kind. D. information ☐

E. suggestion ☐ F. other ☐

4. What are the reasons for contribution?

A. economic benefit ☐ B. Social benefits ☐ C. Personal commitment ☐

D Following other villagers ☐ E. requested by local committee ☐

5. Do you involve in stakeholder forums meeting?

A. Yes ☐ **B. No** ☐

6, How do you rank level of collaboration between the community and projects management

A=excellent ☐ B. very good ☐ C. good ☐ E. poor ☐ F. fail ☐

Reasons for your choice

please_____?

7. Do you think culture have positive or negative influence in the implementation?

A. Yes ☐ B. No ☐

8. Do you have any gender based classification of role in the implementation?

B. Yes ☐ **B. No** ☐

Part five;-Project Monitoring and Evaluation Stage

1. Do you involve in monitoring and evaluation of the afforestation projects?

Yes ☐ B. No ☐

2. What was your reason for your non-participation?

A, because not member of food-for-work and PSNP

B, not aware when monitoring and evaluation was carried out.

C, never been invited to take part.

D, other

***Thank you once again for you kind cooperation**

Annex-4

Addis Ababa University

Center for Water, Environment and Development studies

Part 4

English Version of the Questionnaire

The role of community Participation in afforestation project : the case of Sekota adoining woreda Addissan afforstation project

Interview questions for Sectoral office heads and ORDA

This questionnaire is prepared to gather information about afforstation practices, intensity of people's participation and contributions useful for the protection and maintenance of your environment. In answering my questions, please remember that there are no correct or wrong answers. I am just after your honest opinion. This information will used for academic propose which mean it extremely confidential.

Yideg Alemu

1. Personal Data- 04

1.1 Sex _____

1.2 Educational background _____

1.3 Year of work experience _____

1.4 Position _____

Questions related to the community participation, collaboration and support.

1.To what extent are the relationships between Wereda and kebele administration, and ORDA?
2. Who is responsible for community participation, co-operation and resource mobilization for afforestaion project?
3. How participated the communities in project activities?
4. How did you evaluate the participation of communities in afforestation project?
5. Is there competition by community?
6. How do you evaluate the performance of afforestation project in general and the study area in particular?
7. How do you explain afforestation project before and after implementation? With Examples.
8. How do you explain allocated budget to implement the activities? Is there a gap between? Physical and financial plan? To what extent?
9. Does have Zonal and Regional administration interfere in project affairs? To what extent?
10. To what extent is the Zone administration supported to the project?
11. What will you recommend in overcoming the problems you have mentione

Annex-5

Addis Ababa University

Center for Water, Environment and Development studies

Part 5

English Version of the Questionnaire

The role of community Participation in afforestation project : the case of Sekota adoining woreda Addissan afforstation project

Focus group discussion questions, for Experts, Elders, and Rural Households.

This questionnaire is prepared to gather information about afforstation practices, intensity of people's participation and contributions useful for the protection and maintenance of your environment. In answering my questions, please remember that there are no correct or wrong answers. I am just after your honest opinion. This information will used for academic propose which mean it extremely confidential.
I thank you in advance for your co-operation and response.

Yideg Alemu

1. Profile of Respondents Community Forest Site

- A total of eight discussants
- Two elected representatives (one traditional schooling and one elementary schooling)
- Two young men village representative (illiterate)
- one nearly young women
- One School teacher (diploma)
- One wood seller (illiterate)
- One charcoal seller (illiterate)
- One farmer (illiterate)
- Held near a market place (illiterate)
- Held on Saturday, November 1, 2012
- Issues participation about in addissan afforestatio project?
    - Project proposal
    - Project meeting
    - Project implementation and M&E stages.

Appendix-6
About the Organization for Rehabilitation and Development (ORDA)

Vision;-Seeing poverty free people of Ethiopia
Mission;-Empowering the Amhara region food livelihood insecure households and communities to maximize their development potentials and benefits by developing their capabilities and self-esteem
Positioning:-ORDA is the learning, caring and dependable development partner
Motto;-Making a difference in collaboration!!!
Values;-Effective collaboration -Respect and dedication to the people
Dynamic institutional governance -Unity of purpose
Integrity -Impartiality
Transparency and accountability -Harnessing volunteerism
Community participation and -Empowerment
Goal;-To ensure household and community livelihoods security and enhance socio-economic and governance transformation in Amhara .
Objectives ;-Developing the capability and self-esteem of the food insecure households and communities Supporting the rural poor households and communities endeavors in natural resource, agriculture and infrastructure development as well as off-farm income diversifications Responding to natural and manmade disasters Empowering women Combating HIV/AIDS and Harmful Traditional practices
Programs
1. Agricultural Development focusing on;
Capacity building, Enhancement of market-led agricultural production and productivity and Promotion of participatory natural resource s conservation and integrated water shade management practices ,Diversifying and increasing household income
2. Water Resource Development ;-Safe water supply and Small scale irrigation
3. Forest resource development
Bio-diversity conservation, Agro-forestry, Individual household's woodlot establishment
Community/social forest development, Wood and high value tree production
4. Disaster mitigation
5. Capacity building
Organizational Structure
General Assembly
Board of Directors
The Executive and Deputy Directors
Programs and services
Project, liaison, and zonal coordination offices
Networking and Collaboration
In furthering its purpose, ORDA is a member of several national and international networks. It has always been committed in maximizing collaboration with the target communities, community-based organizations, local government structures and line offices

Appendix-7

Institutional Structure and Planning Process in Woleh Kebele Sekota Adjoining Woreda

In Wag-himira zone , we find two tiers of administration i.e woreda and kebele. Both have their own legislative, executive as well as judiciary branch of government next to the zonal hierarchy.. At Woreda level, there are woreda council and woreda executive and judiciary. In similar fashion at kebele level, there are kebele councils kebele administration and social courts. The Woreda administration structure has 14 sector-based offices each of them assigned to discharge different governmental responsibilities. Similarly each of the kebele administrations has 11 sector-based offices under it. With view to giving better administrative service, the sector-based offices at both levels are categorized under two major categories i.e Municipal and Non-Municipal offices. The existing development planning system both at woreda and kebele level involves worda councel, administrative sectors, keble councel and kebele administration offices. It is obvious that hierarchy of political authority increases as one goes up from kebele level sectoral offices to woreda executives. Accordingly Sekota adjioing woreda is one of the district found in the zone Wolehe Mariam kebele is one of kebeles of Sekota adjoining Worede found at south east of the town.

According to the information given by Woleh kebele administration development plan is prepared by active involvement of various kebele sectoral offices which are responsible for identifying and recording problems, incorporate community priorities , prepare kebele level annual sectoral development plans and overseeing the implementation of sectoral development projects and other different tasks. Furthermore, these offices are responsible for preparing reports of sectoral performance, serving as a liaison to any local level sectoral development activities and undertaking the day-to-day management of local level sectoral development projects. Each kebele level sectoral offices is expected to prepare, implement, monitor , evaluate development activities and finally submit its periodical performance report to kebele level administration as well as to its respective mother Woreda sectoral offices. In the same way after careful Kebele administration evaluation the final approved report of each kebele office will submits to its kebele and woreda councils.

On the top of that the woreda adiminstration give coordination, supporting guides and political leadership in order to achieve overall developmental and good governance plans of the kebele. Worda level sectoral offices, which are in charge of facilitating community meeting on sectoral issues, identifying needs and priorities the community needs, harmonizing the sectoral plans, guiding the implementation of sectoral development projects, Generally the woreda executive branch of government is in charge of leading the overall implementation of local development activities, providing strategic political leadership, giving strategic guidance for community mobilization for local development activities, and ensuring equitable beneficiary of the community from the development fruits.

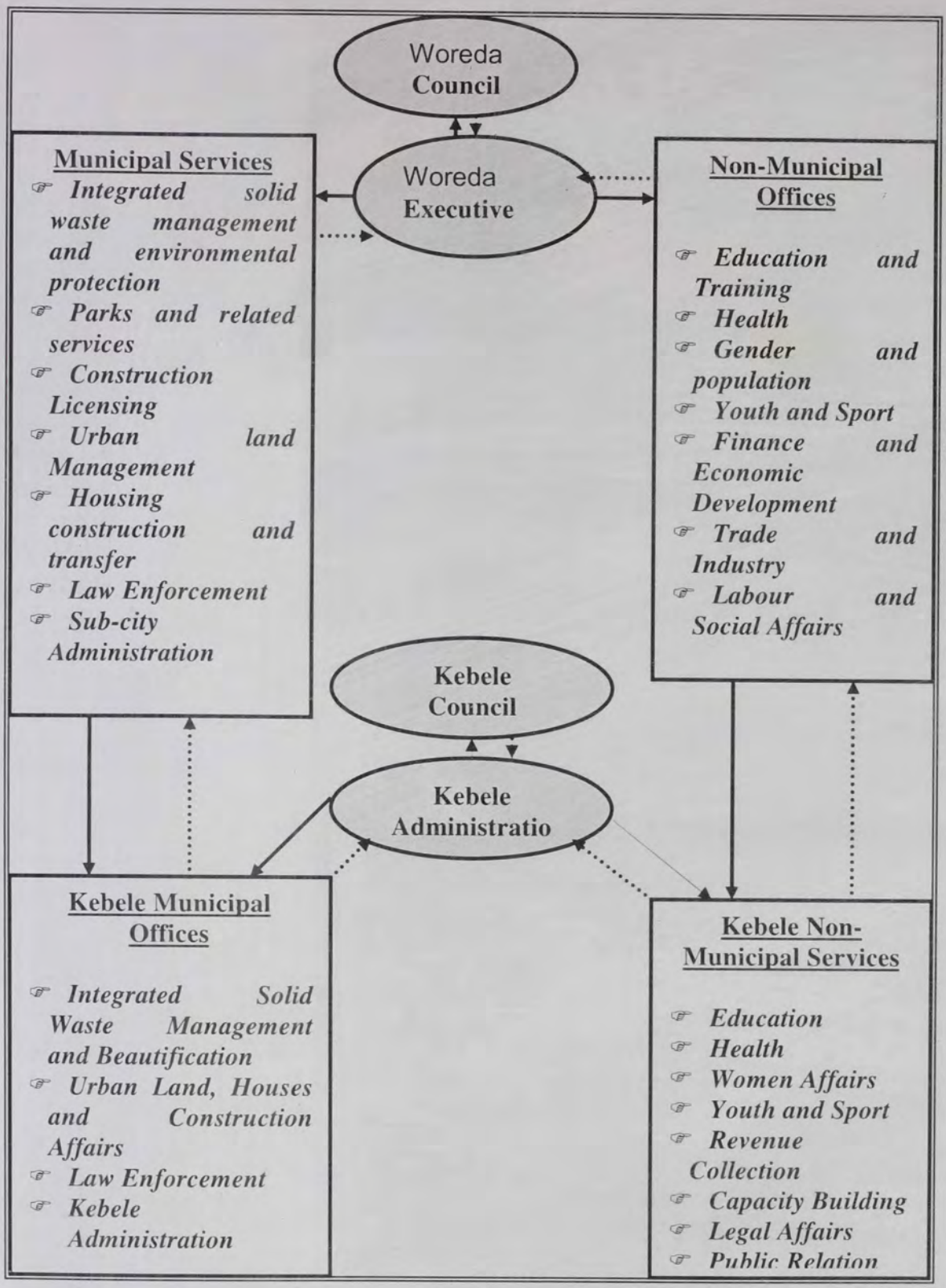

Figure 10: Institutional Structure and Planning Process in Woleh Kebele Sekota Adjoining Woreda (Source: SWARADO)

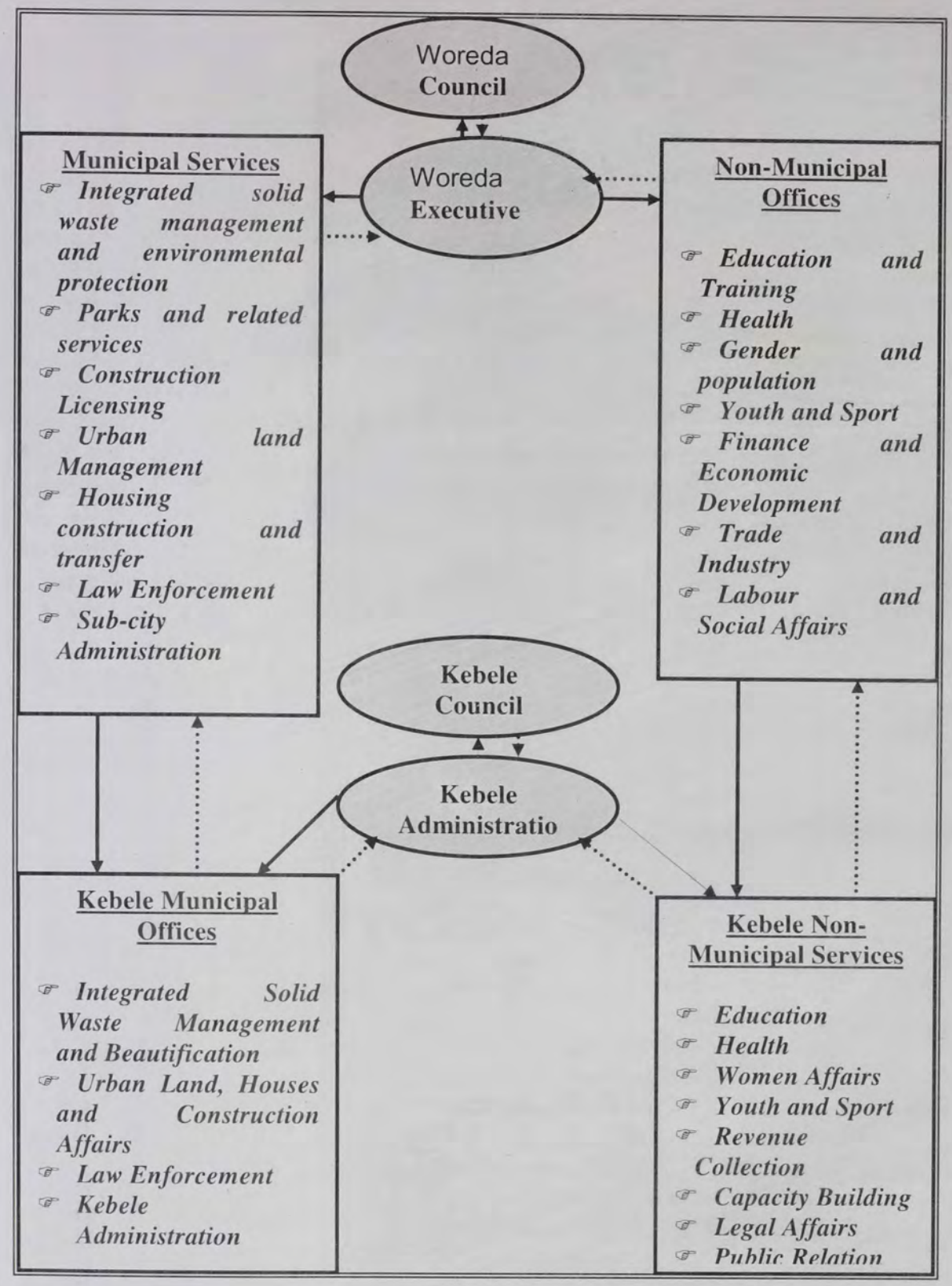

Figure 10: Institutional Structure and Planning Process in Woleh Kebele Sekota Adjoining Woreda (Source: SWARADO)

Appendix-8

Stages and Cycle of Planning Process in Woleh Kebele Sekota Adjoining Woreda.

According to the woreda agricultural rural and development office plan (2010/11-2014/15 (Tablet, 5, 6, and7) is an integrated document in which all agricultural concerns have expressed through programmes and projects which have been separately planned for every year. As explained in the document the life span of development plans being prepared by the kebeles of the woreda was one year. It is understood that, this is a recent initiative to prepare the five-year strategic plan of the woreda, after which the kebeles would be preparing their own strategic plan in line with it.

According to government administrative and ORDA explanation, communities are involved in identifying problems and concerning issues by providing information, in training and seminar , meetings, and home to home interview. Communities also attend in advance in Planning stage through attend meetings, conferences and present their opinion on proposed plans and programs before the implementation and also influence the implementation, monitoring and evaluation.

Summary of Stages of planning process at wolehe kebele

1. Identifying problems and concerning issues
   - providing information and identify problems
   - participate in training and seminar
   - Attend meeting and consult with government agencies about problems and possible solutions.
2. Planning stage
   - attend meetings or conferences and present their opinion on proposed plan
   - citizen's opinion was heard and adopted by government agencies
   - community proposed plans and programs
3. Implementation
   - Appointed committee's members in planning formation
   - Community participates in Plantation activities held by government agencies
   - Community provide information and being key-informants
4. Evaluation and monitoring
   - participate in monitoring and evaluating plan and programs in community

(Source: SWARDO)

The development planning cycle of woreda is found to have six stages; strategic planning framework preparation, plan pre-preparation, plan preparation, appraisal and consolidation, implementation and monitoring, and evaluation. Amongst the six stages, it is only on pre-preparation, preparation and evaluation that direct community participation is being conducted in the woreda. In all the other phases of the planning cycle, community participation is conducted through indirect participation