ADDIS ABABA UNIVERSITY

COLLAGE OF SOCIAL SCIENCE

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES

Practices and Challenge to Participatory Forest Management in Ethiopia: The Case of Chilimo-Gaji Participatory Forest Management, West Shewa Zone, Oromiya National Regional State

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A Thesis Submitted to Collage of Social Science Addis Ababa University in partial fulfillment for the degree of Master of Arts in Geography and Environmental Studies (Land resources management)

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This is to certify that the thesis prepared by Deressa Shime Gada, Entitled: **"Practices and Challenges to Participatory Forest Management, The Case of Chilimo-Gaji Forest"** and submitted in partial fulfillment of the requirements for the degree of Master of Arts Geography and Environmental Studies complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Lists of Acronyms

ARDO	Agricultural and Rural Development Office
DA	Development Agent
FAO	Food and Agriculture Organization
FDRE	Federal Democratic Republic of Ethiopia
FED	Finance and economic development
FGD	Focus Group Discussion
FPC	Forest Protection Committee
FUCOP	Forest User Cooperatives
FUG	Forest User Group
ICDP	Integrated Conservation and Development Projects
IFAD	International fund for agricultural development
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
MIT	Musachusset Institute of Technology
m.a.s.l.	Meter above sea level
NTFP	Non Timber Forest Product
PFM	Participatory Forest Management
PR	Property Right

ABSTRACT

Participatory Forest Management project initiated by Farm Africa in Dendi woreda was operational since 1996 in Chilimo-Gaji forest. Currently the management responsibilities have been transferred to the communities around the forest. The aims of this thesis are to investigate the practices and challenges of participatory forest management and to investigate the roles and interactions of different actors in the management process of the Chilimo-Gaji forest. Three forest users' cooperatives were selected for data collection. To collect the data qualitative methods of data collection such as key informant interview, focus group discussion and field observations techniques were employed. The qualitative data were transcribed, categorized and indexed for analysis and interpretation. The results of the study showed that resource attributes (e.g. forest block size, benefit sharing) and problems related to membership accession as well as poor financial management have negatively affected participatory forest management in the study area. Moreover, the forest user communities were found to have doubt and insecurity regarding the continuity of the program due to low level of government support and restrictions to traditional resource use rights. The management overlapped with stockholders and the coordination among the proponent actors in forest management process was found to be very limited. Furthermore, the actors' net work with higher officials, their relatives and the power dynamics among the various actors have adverse impact on the forest management process. This violation of the communities' bylaw, rules and regulations resulted in some forms of responses from the forest user communities. Especially 'adaptation' and 'resistance' approaches were used by the local communities to get access to forest resources. Local communities often rent donkey and form network with authorities and relatives as a form adaptation for accessing forest resources while. Various forms of passive and active resistances were employed by the local communities in reactions to the communities' bylaws and access to forest resources, respectively. Thus any successful implementations of participatory forest management should take into account the challenges of local communities' livelihoods, proper mandates of institutions and actors' dynamics and power interactions.

***Key words**: actors' interactions, Chilimo-Gaji, community bylaw, forest user cooperatives, participation, tenure insecurity,*

CHAPTER ONE: INTRODUCTION

1.1. Background

Conservation and development agencies have attempted to reconcile social, ecological and economic goals, by promoting the involvement of local people in conservation initiatives (Hobley, 2005). One of the underlying ideas of participatory conservation approaches has been that of the local communities' involvement and participation in the design, planning and management of forest. The local communities are believed to have or at least should have the most incentive for and knowledge about managing natural resources in a sustainable way (Brosius et al., 1998). Natural resource management interventions experienced what could be described as a paradigm shift from state-centered to community-based participatory approaches (i.e. Community-based Natural Resource Management (CBNRM) since 1980s (Brosius et al., 1998). This paradigm shift was efforts to orient towards facilitating people's active participation and direct control over resource use and management (Sailaja, 2009). In a sense, the CBNRM approach is directly opposed to state centered top-down management and control of natural resources.

Nevertheless, the community based forest management implementations have opened up novel political and socio-ecological challenges which needs to be considered by all actors involved in conservation. One of the challenges is how and why these formal participatory forest management plans which were intended to facilitate people's participation but come short of meeting the intended objectives.

In decentralized PFM interventions, the state (Ethiopia) shifts the responsibility over natural resource management to institutions such as the Forest Protection Committees (FPC). Hence, actors who take responsibility of the institutions tend to control the overall participatory dynamics within and around the FPC determining who gets to make decisions and who may have access to the natural resources and related benefits as well as incur opportunity costs (Carswell, 2007). These actors engage in constant negotiations and interactions while simultaneously participating directly and indirectly in the formal institutions such as the FPC, as well as informal institutional structures like the local social networks functioning in the intervention setting (Sailaja, 2009). Hence, this thesis maps the key actors' interactions and

negotiations, which characterize their participation in the formal Chilimo-Gaji participatory forest management plan at grassroots level.

Moreover, Non Governmental Organizations (NGOs) pushing for conservation decisions to be based overwhelmingly on scientific analysis, rather than political or social factors, this provides the potential for political debates on conservation (Leach, 2003). If local people are not equally benefitted from the resource, and excluding the voices of local people in conservation and these are often very difficult to access, excluding locals from openly raising their complain and pushing them towards everyday resistance. The main aim of everyday resistance is to check the limits to practices and customs, rather than large-scale change, where both subordinate and dominant groups are constantly trying to seize the advantage of everyday relations (Scott, 1985).

Lastly, tenure right attributes of the resources, attributes of the users and the institutional arrangements are considered as factors that affect PFM. Institutional arrangements like property right regimes have important bearing on resource conservation and management.

1.2. Statement of the Problem

In Ethiopia there is a growing understanding that deforestation and land degradation will further exacerbate poverty, which brings natural resource conservation to the front position of rural development initiatives (Yemiru, 2011). The sustained deforestation and depletion of forest show that the usual top down approaches that were in practice to mange forest in Ethiopia are not guarantee for the conservation of forests. It disregards traditional common property regimes, ignores local resource people's knowledge and disempowered local community in terms of both resource ownership and responsible use, (FARM Africa, 2005). Many scholars have argued that conservation efforts which have been tried so far in Ethiopia was conventional and coercive (Melaku, 2003, Tadese and Alemtsehay, 2012, Weinberg, 2010).

In Ethiopia, decentralized forest resource management was initiated in the mid 1990s with the support of international non-governmental organizations (NGOs) to mitigate natural resource degradation and its effects on the livelihoods of people (Habtamariam et al., 2009). Participatory Forest Management (PFM) is a new paradigm of forest management which is adopted and implemented in order to fulfill the interests, respecting of traditional users, and

hence such a bottom-up approach may encourage a sense of ownership to the rural people to conserve forest resources. The participatory forest management plan has been going on in Chilimo-Gaji dry Afro-montane forest which is one of the oldest remnant forests found in the central highlands of Ethiopia since 1996 (FARM Africa, 2005).

Nevertheless, several studies show that initiatives that use some kinds of participatory approach to conservation of natural resources often fail to achieve their goals in terms of power devolution for decision making and promoting conservation (Wells et al., 1992; Stocking 1992, Barrett et al., 2001). Hence, due to continues shrinking of forest coverage in the study area, the agricultural rural development office, cooperative promotion office and the woreda level forest enterprise blame each other to the failure of proper forest protection. The conflict of interest on forest products among forest user group, differential power relationship among different actors at different levels and lack of clarity and overlapping responsibilities of institutions are among issues which undermine the success of participatory forest management in Ethiopia, particularly in Chilimo Gaji Forest.

Although there have been a lot of efforts made to manage this natural forest by local community, research conducted on these issues was limited. Different studies (e.g. Garuma 2000, Mulugeta and Melaku 2008; Habtemariam et,al., 2009; Tadese and Alemtsehay, 2012) did not address PFM related problems such as how local actors influence the stronger actors to negotiate on decisions made by them towards PFM and resistance to the activity related to PFM in the study area. Hence, this thesis tried to fill this research gap.

1.3. General Objectives

The main objectives of the thesis are to investigate the practices and challenges of participatory forest management and how different actors play their roles in managing Chilimo-Gaji forest

Specific objectives

i) To identify the major factors affecting local people's participation in forest management in Chilimo-Gaji forest.

ii) To assess the challenges of forest user groups to implement participatory forest management in the Chilimo-Gaji forest.

iii) To identify the roles of the main actors involved in the participatory forest management process in Chilimo-Gaji forest

iv) To examine the interactions of local and state actors in the process of participatory forest management in the study area.

1.4. Research questions

i) What are the major factors that affect local people's participation in participatory forest management in Chilimo-Gaji forest?

ii) What are the major challenges of forest users group to implement participatory forest management in Chilimo-Gaji forest?

iii) What are the roles of the main actors involved in the participatory forest management Chilimo-Gaji forest?

iv) How do local and state actors interact in the process of participatory forest management in Chilimo-Gaji forest?

1.5. Limitation of the study

The study covers only three forest user cooperatives (FUCOP). Due to time and resource limitations the thesis could not include many more FUCOPs which would have given a more vivid picture of the reality on the ground. Nevertheless, I believe, that these three forest areas could best represent the Chilimo-Gaji and the findings will be of greater interest for scientific and management purposes

1.6. Significant of the Study

Despite a growing awareness among scholars and practitioners regarding the role of local people's to determine the success or failure of natural resource management schemes a lot less attention is given to their roles in the overall process of forest reserve design and implementation. However, Ethiopia is currently transferring forest management responsibilities to local communities through participatory forest management (PFM) schemes.

The finding of this research will hopefully be of scientific contributions for those who are interested to make further studies in similar issues at different geographical settings and it will also help to inform policy makers on how to involve the local communities in forest management activities. I believe that the finding of this research may decipher the complexity of local and state actors' interactions and their respective roles that need to be considered in any process of participatory forest management in Ethiopia

1.7. Organization of the thesis

The thesis is organized in to seven chapters the first chapter deals with background, statement of the problem, objectives of the study, limitation, significant of the study and organization of the thesis. Chapter two provides theoretical and empirical literature on participatory forest management while chapter three devotes itself to the description of the study area and methods employed. This is followed by chapter four which deals with principal actors and their roles in PFM and the evolutions of PFM in the study area. Chapter five discusses with challenges and constraints of PFM. Chapter six deals with the political ecology of participatory forest management in Chilimo-Gaji forest. Finally chapter seven provides summary, conclusion and recommendations

CHAPTER TWO: REVIEW OF LITERATURE

2.1. The Natural Resource management approach

In many parts of the world local peoples have been managing their natural resources based on their traditional knowledge or indigenous knowledge before the stewardship role of the state. This was because local people were able to manage natural resource through complex interplay of mutual benefit and support. Their indigenous knowledge and skill played great role in managing the resource (Tirhas, 2009). Nevertheless, the intervention of the state with their wholehearted interest to have control over those commonly managed resource brought a disturbances to indigenous natural resource management system (Borrini-Ferabend, 2000). This has resulted in continuous forest degradation in the world.

The initiation and concern for managing natural resource dates backs to the 1970s, since the emergence of alternatives development approaches. Different actors have attempted to treat the environmental problems with simple, neat solutions focusing on biological and or technical solution and neglecting the social dimension (Bryant & Bailey, 1997). Contrary to such views, however, resource management comprises ecological, social, economic, legal, and political aspect in relation to community participation (Castren, 2005). Hence, management of forest resource needs participation of community around the forest. The meaning, rationale, intents of participation, institutional arrangement of forest management, power relation in forest management will be seen as follows.

2.2. The Meaning of Participatory Forest Management.

The concept of resource co-management in general and forests in particular that incorporates state and citizen participation has been around for decades and has changed in theory, practice, and terminology over the past fifteen years (Farrigan, 2005). There are various definitions given to participatory forest management among different scholars. Hobley, (1996) expressed the term participatory Forest Management (PFM) was used as an umbrella term to include shared forest management, join forest managements, collaborative forest management and community forestry, Community based forest management. According to Weinberg (2010) Participatory Forest Management (PFM) is a mechanism to protect forests and enhance the livelihoods of communities who use and benefit from them in the process. Participatory Forest Management (PFM) is used as a broad term to describe systems in which communities (forest

users) and government services work together to define rights of forest use, to develop ways of sharing management responsibilities, and to agree how to divide forest benefits.

PFM refers to the legal empowerment of local communities to manage forest resources for, in the first instance, their sustained livelihoods, and in the second instance, conservation values (Zelalem, 2005). Borrini-Feyerabend (2000) defines PFM as a 'situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a give territory, area or set of natural resources'. Participatory approaches to natural resource management encompass ideas about the desirability of citizens actively engaging in the institutions, policies and discourses that shape their access to resources. Through participation in collective resource management it is claimed that people can re-negotiate norms, challenge inequalities, claim their rights and extend their access (Cleaver, 2007).

The essence of PFM plan are common-property regime and are a body of system of environments, resources, and conservation programs participating local peoples that can be more generally termed as 'participatory conservation'. Participatory conservation is a way of approaching conservation initiatives, which has emerged along with participatory approaches to development since the 1970's (Hobley, 1996). From 1890s-1970s conservation was promoted throughout the world using exclusionary means to conserve landscape from human use, like national park model from state led bureaucratic, technocratic or expert driven approach (Berkes, 2004).These model remain common but have lost popularity for numerous reasons, within their boundaries as well as their inflicting negative social impact on local population dependant on the resource (Berkes, 2004). Taking in to consideration about the role of communities in conservation as part of participation, benefit will be gained as conservation incorporate multiple scales of ecological, social, political, and economic concerns (Berkes, 2004).

2.3. The importance of participatory forest management

PFM attempts to secure and improve the livelihoods of local people dependent on forest resources by involving all stakeholders in the process of forest management, understanding their needs and situations, allowing them to influence decisions and receive benefits, and increasing transparency (Hobley, 1996). But without clear property rights, as long as resources

have value, they will be used in less than ideal ways and almost certainly will be degraded, often to the point where they end up close to worthless. Sometimes this phenomenon is called the "Tragedy of the Commons" (Hardin, 1968) and reflects the idea that potentially very valuable resources can be degraded when it is not clear who gets the products generated from natural resource investments and/or who has the right to control resources. Establishing clear property rights through appropriate institutional arrangements is therefore perhaps the critical prerequisite to enhanced tree planting, stewardship, management, and tree cover in many low-income countries (Mekonnen and Randall B., 2008).

As scholars rightly put PFM is process oriented activities and in this activities the main actors are the government and community whether their roles and responsibilities can vary depending on the resource base (Borrini-Feyerabend, 2000). There is no generalized model for a successful PFM approach, but in principle should be based on the existing traditional use, management rules and traditional institutions (Irwin, 2004). Of the different collective decision-making rules, those related to property rights have long been recognized as an important precondition for effective management of the commons. The original argument for increasing community participation in the improving of environment project arise from the need to better target people's need, by including indigenous knowledge, and ensure that benefits are fairly divided and lower management cost (Irwin,2004). The economic reason behind PFM is that the communities will conserve forest resource if benefits of management action outweigh the cost of forest conservation.

Therefore the issue is what benefit the communities are gaining out of involving themselves in the process of forest management or tree planting in some case (Zelalem, 2005). PFM is recommended to contribute to improved food security and poverty reduction; it could therefore have the potential to play a part in reaching two of the Millennium Development Goals; Eradicate Extreme Poverty and Hunger; and Ensure Environmental Sustainability (Weinberg, 2010). Behind the strategy lies an assumption that forest areas that are managed by or together with rural communities are likely to have lower levels of forest disturbance and improved forest condition than areas that are either under exclusive state management or under open access regime (Tom, 2009).

The general viewpoints of managing forest in common is to convince people of the benefit of sustainable utilization and by guaranteeing use rights to engage them in sustainable forest management. For this to be successful people must be convinced that it is indeed possible to maintain the resource over indefinite period of time provided use is regulated. Second, it must be possible to guarantee continued streams of benefit from forest products and services (Yonas, 2007). The forest products under PFM are the most important sources of income contributing to household per capita income and per capital cash income.

Governing common pool resources such as forests is difficult because such resources combine the most problematic aspects of resource governance, namely subtractability and excludability (Ostrom, 1990). These resources are used by multiple individuals while generating finite quantities of resource units, where one person's use subtracts from the quantity of resource units available to others. Moreover, most common-pool resources are sufficiently large that multiple actors can simultaneously use the resource system, and excluding potential beneficiaries is very costly (Ostrom, 1990). The issue of tenure is also very important. Right of access to and /or ownership of forest resources completely change the perceived and actual values of the resources to the community. Empirically, secured property rights have been linked to more sustainable forestry (Castren, 2005). According to impact assessment made by JICA on Belete-Gera Regional Forest Priority Area (2011) "on average, where there are PFM and people feel a sense of beneficiaries and ownership forest area increases by 1.5 percent in the first two years of study, while forest area where there is no association declines by 3.3 percent (p16)". Therefore institutional arrangement like property right regimes is needed so as to conserve the natural resource and it provides incentives for such activities.

2.4. Property Right (PR) Regimes over Resource

According to Melaku,(2003) institutional arrangements like property right regimes have important bearing on resource conservation and management. This is because some property right types provide incentives for such activities while others do not. Property right is a deliberate social contract where right over property are constitutionally or customarily conferred, outlined and enforced by the state as well as by community. Bromly (1998) defines PR as institutional arrangements to govern access to land and other resource as well as the

resulting claim of the title holder on those recourses and the benefits they generate. Property rights regimes define actors' right of access and control property. They are hence socially defined entities (Yeraswark, 2000). Clarifying the difference and similarities between property system, rights and owners is an essential first step towards an understanding of interaction between people and forest (Gibson et al., 2000). Malaku (2003) identified four types of property regimes: state property, private property, common property and open access.

Private property right regimes: is situation where an individual exercise an absolute right over his property, particularly over natural resources where there was no law to regulate utilization from start or there was serious difficulty in implementing existing rules (Bromley, 1998).

State (Public) **Property Regimes:** The state as a social institution is assumed to be the ultimate support of the nation's resources, heritages and sovereignty. Such resources as national parks, conservation forests, waterways and riverbanks, mountains and gorges etc may remain under the protection of the state for protection purposes (Melaku, 2003).

Common Property Regimes: Here, two categories are identified: regulated and unregulated. The regulated common property is different from the unregulated in only one feature. In the former not only utilization is controlled, but also the benefit to members is proportional to input from each (Melaku, 2003). It is a property rights arrangement where resources are owned commonly and users allocate right and duties to members (Ostrom, 1990). It is based on inalienable land rights shared by members of a social group (Yeraswork, 2000). In unregulated common property regime resources are still owned commonly and non members are excluded; but consumption may not be necessarily equal among members because utilization is uncontrolled. This case is due to factors such as size or nature of property (Melaku, 2003). The issue of this thesis is resource management under common property regime.

Open access property regimes: this is situation where no one holds rights to a resource and nobody is excluded or they are "owned "and used by all, but cared for by none (Melaku, 2003). Destruction or degradation of forest resources is most likely to occur in open-access forests where those involved, or external authorities, have not established effective governance (Ostrom, 1990). Open access is an acceptable method for resource management only when we need not manage resources at all (McKean, 2000).

2.5. Factors Affecting Peoples Participation in Participatory Forest Management.

Yonas (2007) briefly states three basic factors that affect people's participation in participatory forest management .Each in turn is branched in to a diverse group of factors or variables.

Resource Attributes: size of resource, clarity of boundaries, predictability of recourse flow, condition of resource, ease of exclusion.

Users attributes: size of communities, proximity to resource and market, group cohesion or heterogeneity, norms of behavior, available skills and knowledge of recourses and historical events.

Institutional arrangements: membership, access, appropriation, monitoring and sanctions, conflicts resolution decision making arrangements, relationships with external agents.

The dynamics of actors interaction. Their interactions have positively or negatively impacted on the management process of forest.

In addition to the above elements that determine the success of PFM, scholars (McKean, 2000 Yonas, 2007) further put the following elements that determine effective functioning of forest user group (FUG) under participatory forest management arrangements. Ease of excludability (cost of preventing others from using the resource) favors PFM which is related to size and clarity of boundaries. More homogenous, smaller close knit groups with intimate knowledge of the resource and history of successful collective action are likely to succeed (Grace, 2007). Simple flexible, faire rules that are supported by external arrangements are likely to favor PFM.

Experience in many countries clearly indicates that when PFM is implemented appropriately, with sensitivity to local conditions and the various attributes mentioned above, it produces significant result. Such as ecological result: conserving the natural resource, improve the extent of forest, increase ecological benefits like maintenances of local climate reduce erosion, and protect watershed; Economic: support rural livelihoods and so helping to alleviate poverty and also bring non-economic benefits such as experience, skill development etc for communities involved in the process (Zelalem,2005).

Although PFM has several benefits to all stake holders, PFM is not solution; that is it doesn't provided a quick fix for forest conservation and it is not guaranteed to work in all

circumstance (Zelalem, 2005). Ethnic composition, political ideology, and cultural with the community could create problems at the user group level. He further indicates that in order to have successful common property, every individual should have an equal level of participation in decision making. Within the common property resource management, participation of different interesting groups is important to minimize the risk of excludability to certain group of the people.

2.6. Challenges and Constraints of Participatory Forest Management

Participatory forest management needs different attentions to achieve the intended objectives. In addition to academic works that demonstrated the potential of PFM, there also existed a concern over the success and sustainability of these co-management initiatives. Especially when applied in wider scales and broader contexts, the performance of this strategy has been found to be varying and requires specific local and regional environmental context (Yonas, 2007).

One of the prerequisites for successful PFM is local people's active and continued participation (Matta, 2005). Though the name PFM is used as a general term to indicate local involvement in forest management, its specific application and types of forests with in which it operates vary widely. According to Yonas (2007), among the many of PFM arrangements in many of African counties, the diversity in group size, group cohesion, and proximity to market is immense. The typology of PFM differs according to the communities' involvement ranging from simple consultation to contracts, consignment and joint venture. As such it is complex and highly context specific which prevents the possibility of blueprinting the PFM process at operational level (Yonas, 2007). As is when developing community based management systems, the appropriate definition of the community is also important. It is vital to assess who are the relevant stakeholders rather than simply identifying all the stakeholders. Communities are not homogeneous and efficient systems require thorough understanding of the internal structures and external linkages of the communities involved (Berkes, 2004). There is no easy correspondence between the community homogeneity and sustainable resource management (Grace, 2007). Another challenge in such venture is the reluctance of government bureaucrats to relinquish power to local communities, particularly where they think this would threaten

their control over the resources and the actors' power relationship in PFM, where this thesis also explored

In participatory forest management, one needs to recognize community based resource management needs conducive environment and may become the most efficient land allocation system only under specific circumstance (Berkes, 2004). Setting up this type of forest management system becomes more challenging when participatory forest management is introduced in low value forest area (Castern, 2005). That is if conservation of the forest needs long term investment to obtain worthwhile.

2.7. Institutions and Actors in Forest Management

Institutions can be seen as set of formal and informal, often acting in combination, affect the ways different groups of people access and the use right of resources (Leach et, al.1999; Grace 2007). Institutions are defined here as rules, regulations, principles and laws that limit and regulate the actions of actors, their networks and organizations in forest management (Vihemaki, 2005). There may be several institutions that in practice are at the same time affecting the use of natural resources (Wilshusen, 2003). Institutional arrangements like membership, access, decision making arrangement and relationship with actors etc are also affect PFM plan (Yonas, 2007).

In an actor-oriented approach, power is seen as the outcome of complex struggles and negotiations over authority, status, opinion and resources, and necessitates the enrollment of net works of actors and constituencies (Long, 2004). In decentralized natural resource (forest) management the role of 'power' is dominant. The exercising of power is a strategy used by various actors to gain access to and control over a set of resources (Nandigama, 2009). When actors do not share goals for conserving resources and are unequally powerful, institutions are significant to define the interaction among actors who create the institutions and to structure the interaction that take place around resource (Grace, 2007).

If actual power is exercised against their right, the communities may react to it in different forms. The reaction of people through a variety of hidden means and imperceptible and perceptible struggles usually reflect their dispute and negotiation with various dominant institutions and forms of power exercise (Scott, 1985). This thesis also examined the way in which local actors negotiate with strong state actor. In demonstrating the relational character of

power, (Nemarundwe, 2003) points out that, the exercise of power assumes the exercise of yielding to it, and leads to that of recognizing the other as powerful. In this context, exercise of power essentially involves active relationships and negotiations between various actors with heterogeneous capabilities.

2.8. Participation and Power in Participatory Forest Management

In the issue of participatory initiatives, the aim is generally to involve local communities and possibly other concerned bodies in managing and forests or wildlife and to assure that their objectives are attained (Vihemaki, 2005). Yet, the extent to which the responsibilities and access rights are shared varies between different approaches. Participatory approaches to conservation include Integrated Conservation and Development Projects and various joint or co-management schemes, such as joint forest management (JFM) and participatory forest management (Vihemaki, 2005). PFM initiatives are taking place in some countries of the world that transforming the local institutional infrastructure upon which local forest management is based. Although PFM intended to produce institutional conditions for more equitable and efficient resources management, most PFM reforms fail to establish the basic conditions that theory expects the outcomes (Jesse, 2005). Community-based conservation and natural resource management initiatives are strategies, but they usually devolve more power to local people, at least in principle. Besides to this, different studies show that initiatives that use some kind of participatory approach to conservation often fail to achieve their goals in terms of devolving the decision-making powers to and or benefiting the local people equally as well as promoting conservation (Wells et al., 1992, Barrett et al., 2001).

Overall, the participatory approach to development has been criticized from various standpoints. Grace (2007) argue that an emphasis on “local participation” can underplay the role of state and trans-national power holders in development processes and represent the “local community” as too a homogenous entity. Moreover, Platteau and Abraham (2002) suggest that the local elites may not be as accountable to the poorer members of community as state agencies, for the resources can be “captured” by local elites in participatory programme.

Experience in many countries clearly indicates that when PFM is implemented appropriately, with sensitivity to local conditions and the various attributes like users’, resource and institutional attribute, it produces significant result (Mulugeta L. and Melaku B., 2008).

Such as ecological result: conserving the natural resource, improve the extent of forest, increase ecological benefits like maintenances of local climate reduce erosion, and protect watershed; Economic: support rural livelihoods and so helping to alleviate poverty and also bring non-economic benefits such as experience, skill development etc for communities involved in the process (Melaku,2003).

Although PFM has several advantages to all actors, PFM is not the only solution; that means it doesn't provided lasting solution for forest conservation and it is not guaranteed to work in all situations (Zelalem, 2005). Therefore, the actual practices of forest management projects often seem to be far from the ideal models presented in policy documents (Vihemaki, 2005). Thus, the approach and implementation of participatory conservation and its power relation aspects has been explored in the specific study area**.**

2.9. The Political Ecology of forest resource management

Political ecology is the one that combines the concerns of ecology with a broadly defined political economy which encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself (Blaikie, 1987, p. 17; Neumann, 2005). Political ecology should champion the analysis of uneven distribution of access to and control over resources on the basis of class and ethnicity. These assertions of political ecology focus on the relationship between individuals and their environment as the basis for all the resulting interactions and distributional outcomes (Bryant & Bryant & Bailey, 1997).

Concerns about the environment have been rising steadily since the 1970s, when a larger Western public became aware of the threats posed by environmental degradation and pollution, (Neumann, 2005). The growing importance of environmental issues on political agendas and in the media has been accompanied by a dramatic increase of research on the environment in developing and Western countries (Blaikie, 1987). Meanwhile Political ecology emerged as a method of fusing cultural ecology anthropologists' empirical studies of local environmental practice with cross-scale analysis of the political economy (Escobar, 1996). In other words political ecologists, at the beginning, were interested in how national or global economic or legislative processes impacted upon local environmental practice

Political ecology emerged as a loose ensemble of theories from the late 1970's and early1980's (Neumann, 2005). Political ecology calls for a comprehensive, socially, politically and economically informed understanding of environmental problems and their management. In an influential study of land degradation in Sub-Saharan Africa, (Brookfield, 1987) question the neo-Malthusian assumption of pressure from population on resources. Until the 1970's it was widely accepted that environmental degradation in developing countries was essentially a result of unchecked population growth combined with stagnant agricultural productivity. Such an assumption disregards empirical evidence and tends to portray the local land users as both ignorant and conservative (Neumann, 2005). In contrast, regards to land degradation as both a result and a cause of the marginality of poor smallholders, a vicious circle where environmental, economic and political constraints force land managers to resort to unsustainable practices.

The political issue of forest degradation is related to change in quality of land use, (Brookfield, 1987). The quality of forest changes only in relation to a given use. This use is always constructed by the society around the forest. Similarly, the notions of deforestation and forest degradation reflect a socially constructed concept of forest. A forest is above all a resource with distinct uses. Deforestation, in essence, entails a conflict between different land uses (Jarosz 1996). Hence, the problem of deforestation from a political ecology perspective resides in the relationship between different land users (actors), rather than in the relationship between users and the forest. A political issue of deforestation emphasizes the distributive impacts and power struggles inherent in forest use and management (Bryant & Bailey, 1997). As Jarosz (1996) notes in her study of the history of deforestation in Madagascar, power over natural resources is closely tied to the ability of actors to assert their interpretations of environmental problems.

The social concern of environmental problems tried to contextualize the issue of environment to the scale in which it operates. In order for power struggles and distributive impacts to become obvious, environmental issues have to be placed in their social, political, and economic contexts. As a result, political ecology operates simultaneously on multiple scales. While people mainly interact with the environment on the very local level, the political economy that shapes and constrains their actions is local, regional, and global. Political ecology

has tended to emphasize the importance of the nonlocal forces that underlie local environmental problems (Neumann, 2005)

A contextualization of deforestation requires an identification of the actors that use and manage the forest, their interests and the institutional arrangements through which decisions about forest use are made (Bryant & Bailey, 1997). Indeed, actor oriented approaches in political ecology have gained increasing attention in the past decades as structuralism has fallen out of favor in much of the social sciences (Bryant & Bailey, 1997).

Actors' access to environmental resources is understood as political by political ecologists. The control and use of environmental resources must be addressed in order to explore conflict over access, tenure systems and social institutions regulating access (Bryant & Bailey 1997). Actor-oriented political ecology approach, as observed by Blaikie (1987), serves as a means to observe the role and power play of the principal actors involved in the process of conservation in Chilimo-Gaji PFM. The objective of adopting this approach is to understand the possibilities for action by actors operating within broader political and economic structures. This actor-oriented political ecology framework is functional in conceptualizing various interests of key actors at the grassroots level in Chilimo-Gaji PFM intervention. The initial political ecology theory was dominated by an emphasis on structure and hence tended to underrate the ability of politically and economically weaker grassroots actors. In its later and more recent phase, it is increasingly used as a theory with an emphasis on actors and their networks, rather than on structure alone, to understand how the power relations mediate human-environmental interaction in the conservation intervention (Bryant & Bailey, 1997). Pointing to this weakness in political ecology, Schubert (2005) observes that the ways in which the local actors mediate the impact of external forces should be incorporated into the analyses. The present study also examined the ways in which the key actors at the grassroots level respond to power relations and negotiate in the Chilimo-Gaji PFM.

2.10. Forest Conservation policies and legislation in Ethiopia

For long time, policies related to forest resources management in Ethiopia were vague, and can only be inferred from various related legal instruments such as institutional mandates or other documents (Edwards, 2010). In the previous regime, Emperor Haile Selassie declared a law to privatize land and the Derg regime nationalized lands. The proclamations in the two regimes

did not save the country forest resources from degradation as majority of the lost forests were destroyed in this period (Edwards, 2010). In 1991, the fall of the Derg regime further devastated the environment and a new government, Ethiopian People's Revolutionary Democratic Front, was came to power. Hence, more specific forest policy and laws have been enacted since the 1990s. In 1994, a new forest law was enacted with Proclamation No. 94/1994. The aim of this forest law was to contribute to forest development and protection for its ecosystem services and economic functions. But this new proclamation was unimplemented because of the subsequent decentralization programme (Bedru, 2007; Gebremdhin, 2008). Important improvements to this law compared to its predecessors was the introduction of the principle of benefit sharing with local communities and the invitation for public participation in forest management. In this law three types of forest ownership, namely: federal forest, regional state forest and private forest were recognized.

Accordingly, Chilimo-Gaji forest as state forest was situated to central high land of Ethiopia, in west showa zone Oromiya National Regional State as state forest. It is a montane mixed broad leaf and coniferous forest and it was owned and used by local people until it was privatized by emperor Hailesilasie (Edmund et al., 2002). After 1941, Emperor Haile Selassie declared a law to privatize land and limit access to forestland. The forest was appropriated by the emperor Hailesilasie, who took the ownership of almost all of the forest area. Three other land lords took over the ownership of smaller portion of the forest, on the edge of imperial forest. At the time the local community who were tenant of the land owned by emperor land lord was allowed to collect fuel wood and other forest product, but they have to have permission and pay fee. Following the overthrow of emperor Hailesilasie in 1975, the Derg regime came into power with a new proclamation, nationalizing lands and putting administration of land under highly centralized system. The new rule, which is a proclamation on regulation, by Derg resulted into open access to the resource (Tedesse and Alemtsehay, 2012).

In this regime, forest were divided for the purpose of control and management in to state forest, under the control of state forestry department, and community forest which come under the control of peasant association. Local people, former, tenants living in and around the forest declared as state forest were forcibly removed without compensation. Any previous benefit sharing that had been in place during the emperor regime by arrangement between the tenant

and local land lord was abolished. Chilimo-Gaji forest was declared as state forest at this time. The peasant association gave permission to local community to graze their cattle in side and clear those areas of forest on the periphery which had previously belongs to the land lords, as well as some areas which were actually within the state forest boundary and it become open access. Commercial exploitation in the forest was banned and sawmills which was established by the Italian in joint venture with the Emperor was closed down, (Zelalem, 2005). In 1982 an area of 22,000 hectare of forest land was officially demarcated. The forest is surrounded by agricultural land and settlement, most of Oromo people who raise both crops and livestock. The poorest households are heavenly depend on the forest for their survival, mainly by cutting fuel wood and charcoal for sale. Most household use the forest supplies of fuel wood, farm implements, timber for house hold construction, fiber, rope and cattle graze in the forest.

Up on the down fall of the Derg regime in 1991, forest destruction escalated. During the transitional period, before the new government administrative structure were in place, state control was effectively removed (Gebremedhin, 2008). The forest become an open access resource and in combination with population growth, land shortage worsening economic situation and community desire to retaliate for the harsh restriction imposed during the Derg regime rapid uncontrolled forest destruction ensued (Edmund et al., 2002). After the new government established a federal system in Ethiopia, Chilimo-Gaji forest becomes the Oromia National Regional State forest under the management and control of regional government. It was re-demarcated in 1994 by the newly established Oromiya regional government, the report, basing its information on the forest demarcation and inventory team of the Bureau of Agriculture & Environmental Protection of the Oromia National Regional State, further indicates that the forest area has been reduced to 12,000 ha. The area was continuously cleared for agricultural purpose and become 8000ha.(FARM Africa 1996).

In response to the existing situation in Ethiopia, Ethiopia's commitment to environmental management and sustainable development is reflected in the incorporation of several environmental issues into the supreme law of the land; the Constitution. The 1994 Constitution of Ethiopia under Articles 44 and 92, states that all citizens shall have a right to live in a clean and healthy environment, and the Government and citizens shall have a duty to protect the environment, (FDRE 2012). It further indicates that the design and implementation of programmes and projects shall not damage or destroy the environment. The Constitution also

incorporates a number of other provisions relevant for the protection, sustainable use and improvement of the environmental resources of the country. The incorporation of these important provisions into the supreme law of the country uplifted environmental concerns to the level of fundamental human rights (Edwards, 2010). Understanding the impact of centrally governed forest management in Ethiopia, Participatory Forest Management is captured as one option for sustainable forest management through active involvement of the community. Participatory forest management is now considered an effective approach to encourage sustainable management of forest resource as well as support the sustainable livelihoods of forest-dependent communities, (Zelalem and Mulugeta, 2012).

The policy and legal framework to participatory forest management in Ethiopia provides reasonable legal basis for the implementation of PFM and these include the principles contained in the National Constitution, Conservation Strategy and Environment Policy of Ethiopia,(Edwards, 2010). The overall policy provisions deeply acknowledge the need for public participation. In this regard, particularly the Constitution of the Federal Democratic Republic of Ethiopia (FDRE) recognizes that the people have the right to directly participate at local level development initiative as the exercise of the sovereign power of the people. Moreover, people have the right to participate in the formulation of policies and projects in relation to any development activity and the government is duty bound to ensure people's participation, specifically women's participation (Edwards, 2010).

2.11. Analytical frame work

Community based natural resource management have different dimension, but participation is not always beneficial for conservation of forest because of types of participation, who participate, when they participate and under what circumstance (Zelalem, 2005)

Within communities, individuals negotiate the use, management and conservation of resources. They attempt to implement the agreed up on rules resulting from their negotiations and try to resolve disputes that arise in the process of implementation of rules. There are barriers which can lower participation of community in resource management. Among these, power relationship among actors, availabilities of grants and incentives, prejudice and discrimination against the poor and women, factionalism and heterogeneity of the communities, disparities in wealth status, corruption and mismanaging of the communities' resource (Sing,

1992). At the center of the following conceptual frame work, individuals with different power and position who can decide on actions of forest management can play a role in affecting the process of participatory forest management. In general, the various factors affecting peoples' participation in participatory forest management can in fact be represent in the following simple analytical and conceptual frame work.

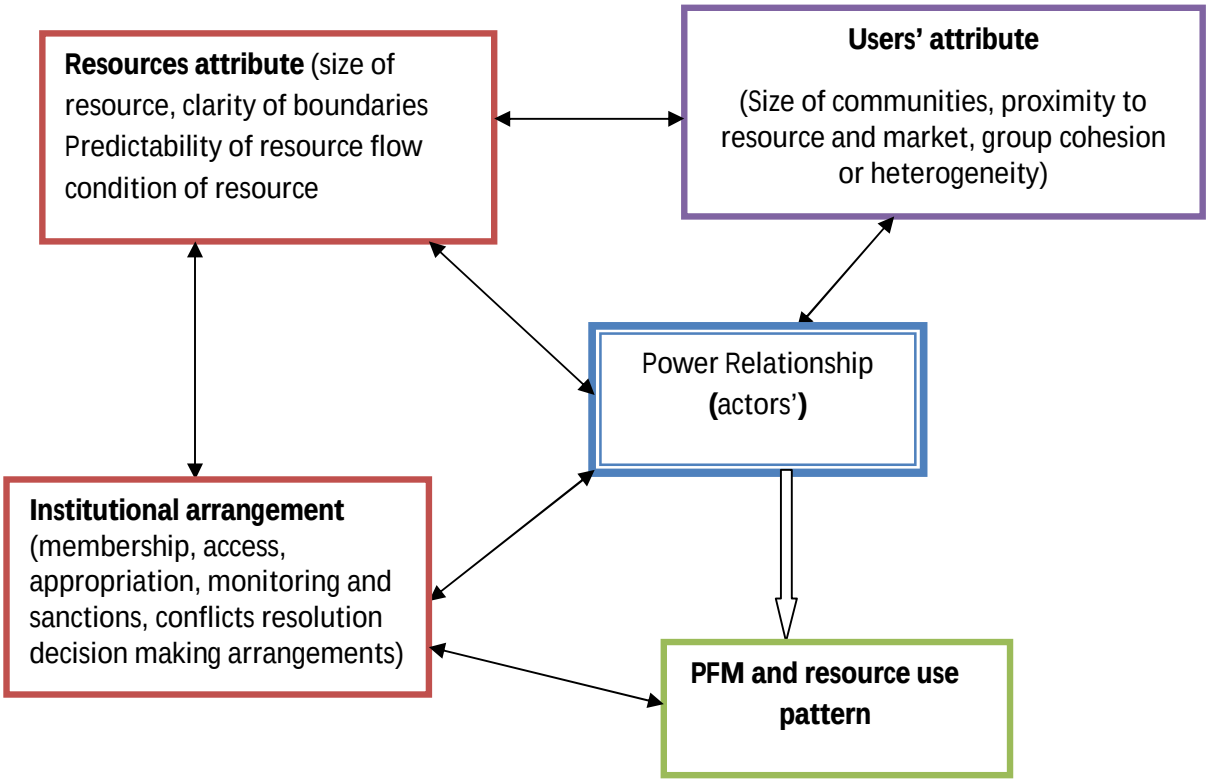

Figure 1: Conceptual frame work diagram.

Source: Own construction on the basis of reviewed literature

CHAPTER THREE: BACKGROUND TO THE STUDY AREA AND RESEARCH METHODS

3.1 Description of the study area

3.1.1. Location

The study area is located in West Shewa Zone, Oromiya Regional State. Dendi woreda is one of the eighteen woredas of West Showa Zone. The woreda's capital, Ghinchi is located seventy five kilometers west of Addis Ababa on the Addis Ababa-Naqamte road.

The woreda has a total area of 109,729 with altitudinal range from 2000-3200 m.a.s.l.The population of the woreda is 209,554. It has 48 rural kebeles and seven urban and semi-urban kebeles, out of which five towns like Ginchi, Olankomi,Asgori and Bodda Asgori have municipal status (Dendi woreda FED Report, 2013).

The woreda has some natural endowments to attract tourists and researchers. Among these Chilimo-Gaji Forest is one of the 58 National Forest Priority Areas of Ethiopia. It is located some 78 km southwest of Addis Ababa, between $38^0$05'E to $38^0$15'E and $9^0$00N to10^0 08'N, with elevations ranging from 2000 to 3200 m a.s.l (Melaku, 2003). The forest represents the remnants of the dry Afro-montane forests in the central plateau of Ethiopia. The main species in the canopy layers are *Junipers procera, Podocarpus falcatus, Prunus africana, Olea europaea subspecies cuspidata, Hagenia abyssinica, Apodytes dimidiata, Ficus spp., Erythrina brucei, and Croton macrosytachus* (Melaku, 2003). Local communities use this forest as a grazing land for their cattle. This forest is also home to some 150 bird species, of which five are Ethiopian endemics, and many more are Afro Tropical Highlands' biome species (EWNHS, 1996).

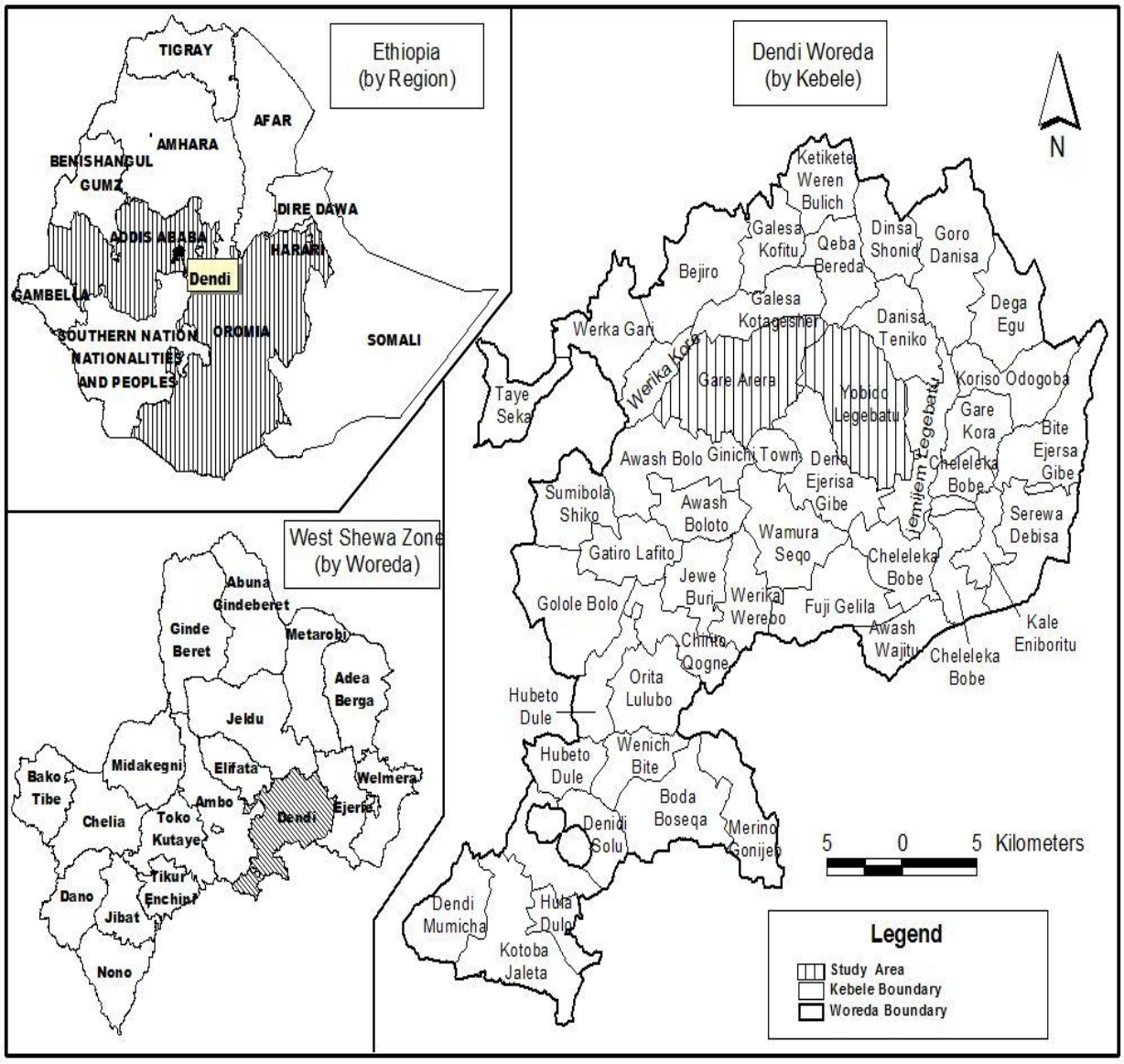

Figure 2: Map of study area

3.1.2. Climate and agro-ecology

It is important to realize that temperature and altitude are the two important factors which are strongly correlated to reflect the climatic condition of the study area. Dendi woreda has a tropical climate that is modified by altitude and the mean maximum temperature is 23.3^0_c while the minimum temperature is 9.6^0c (Holeta research center, 2014). The diverse topographic features of the area represent a diverse climatic condition. The woreda encompasses Dega and

Woina Dega agro-ecological zones. From an agricultural point of view it is actually unimodal, because farmers can only grow one rain fed crop per year. The agricultural season is closely associated with the rain fall pattern. The annual rainfall of the study area is 1409.2ml.The local names for the seasons are:

- Arfaasaa (March to May): a little rain falls during this season. If the rains look promising, some Arfaasaa (Belg) crops like maize and sorghum may be planted. However, as these rains are very rare in the study area, farmers mostly use this season to prepare their land for the coming summer (Ganna).
- Ganna (June to August) is the rainy season. Almost all variety of crops is sown from the beginning up to the end of this period. The season represents one of the main cropping season of the woreda.
- Birraa (September to November). It is a season when farmers end their ploughing farm land and take a rest. At the same time at the end of the season it is also a time of harvesting some wheat crops at waina Dega agro-ecological zone.
- Bona (December to February). It is relatively dry season when crops are harvested, threshed and stored. This season is the pick season for the destruction of forest for the purpose of firewood, charcoal for household energy and selling to the immediate urban consumers.

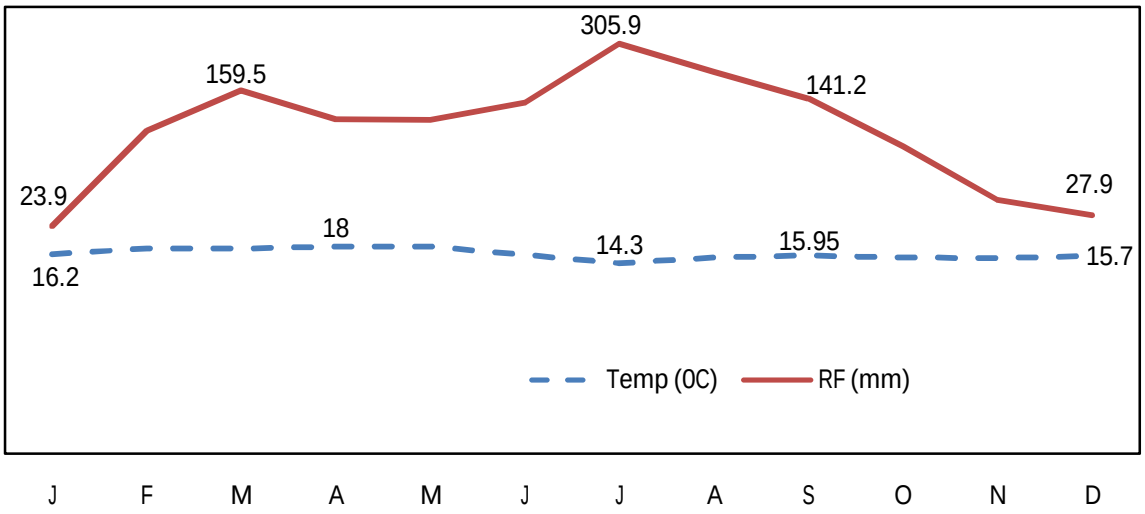

Figure 3: The 2012-2013 Annual rainfall and temperature distribution of Dendi woreda

Source: Holeta research center, Dendi branch (2014)

The Chilimo-Gaji Forest Area and the surrounding kebeles are made up of two major agro-ecologies, namely: (i) Dega and (ii) the Woina Dega. The type and range of crops grown in these two agro-ecological zones are different and in most cases the agronomic practices are not the same. Because of cold temperature in the Dega zone the range of crops grown and potential tree species are fewer compared to the Woina Dega agro ecological zone. The other constraint as related to Chilimo-Gaji PFM is the case of steep slopes susceptible to soil erosion and water runoff. There are often cases where the whole crop field freshly cultivated and sown and crops get washed down leaving bare land reduce crops yield. One of the key constraints of the agricultural land use of the zone is the traditional practice of fallowing croplands letting land use efficiency of only 50% only. This is to say only half of the agricultural land is not in use every growing season to maintain land productivity and they keep on with poverty ridden situation. This practice resulted in more dependence on the immediate forest product illegally or legally to compensate the yield reduction during fallow period.

Household fuel wood shortage for cooking and space heating in the Dega Zone is also acute as deforestation in the nearby area is nearly complete during the transitional period of 1991. This creates the need to enter into the Chilimo-Gaji forest for gathering firewood and making

charcoal. Families living in the Dega zone have very little or no surplus produce for sale to generate cash income. Firewood and timber from the forest have therefore tended to bridge this shortfall, along with sale of sheep, equines, donkeys and horses.

The Woina-Dega agro ecological zone**,** lying below the Dega agro ecological zone, has more ideal climate for growing diverse food crops and horticultural products. Ginchi town lays in the zone. The zone is relatively well serviced by development infrastructure including roads, health, rural credit and markets. There is more water resource available, both from rivers and from ground water for increased and all-year production. Potentials for agro-forestry based land use are high, including increased livestock production, based on zero-grazing where animals are kept in confinement (i.e. dairy and sheep production for the market) and feed brought to them. There are more alternative livelihood opportunities in the zone to enable and make communities not to depend only on resources of the Chilimo forest. But its proximity to the town (Ginchi) and to the all weather road help the rural community in providing charcoal and fire wood for the urban consumers by the urban and rural intruders is relatively easy that add additional burden on the utilization of forest.

Therefore within the Chilimo-Gaji Forest Area, there are PFMs programs or FGUs that are entirely in the Dega zone, representing the higher elevation and steeper slops as well as partially in Woina Dega zone. Hence, some parts of Chilimo and Gaji's forest block falls within the Dega and Waina Dega zones and Jijiga is found fully in Waina Dega agro-ecological zone.

3.1.3. The socio-economic characteristics of Dendi woreda

Demographic characteristics

According to 2007 population and housing census of Ethiopia the total population of Dendi woreda were 209,554 among which 106,050 were male and the rest were female. There were 20,215 households, of which 16,092 were male-headed households while the remaining 4,123 were female-headed. The average family size per household varies between 3 and 5 persons. The economically active work force over 15 and below 65 years of age is estimated to be 49%.

Economic activities and sources of livelihoods

The economic activities for the majority of the population of the woreda are characterized by mixed farming. Like all rural parts of Ethiopian regions, in Dendi woreda the dominant economic activity is agricultural sector where 85% the population is engaged in and followed by service sector. The agriculture is dominantly relied up on the seasonal rainfall and uses old traditional method of farming. On the other hand, cash crops such as potato on the high land use small irrigations. The farmers making their livelihood by producing food crops are leading their lives with poverty. The major crops grown in the district are: teff, wheat, sorghum and barley are the major once. Domesticated animals are also found in woreda with greater proportion. Among these about 801444 ships, 160641 cattle, 17729 goats, 39255 Equines, 87235 poultry, 21744 horses, 2199 mule, and 21395 donkeys which serves as the major income sources for the population of the study woreda (Dendi woreda ARDO, 2014).

3.1.4. Land use

The natural vegetation in the study area is under heavy pressure due to the rapid population growth. The indigenous tree of the study area is removed mainly to expand agricultural farm lands, fuel woods and for the construction of houses, fences around their residence, charcoal production for market.

In addition plantation forest is another vegetation of the study area in which eucalyptus tree is main vegetation type of the area. Most people plant these trees around their residence and near their farm lands. Currently, it is a fashion to see eucalyptus trees everywhere in the woreda especially around sloppy area, near streams, swampy areas and even on very agriculturally productive land. Even though it is not experienced in the village of study area, due to proximity of the village dwellers to Chilimo-Gaji forest, it is highly expanding in the woreda where the former natural forest was dominated the land and now replaced by this exotic tree specious. According to the Dendi woreda agricultural office, the total area of the woreda is 109,729 ha. and is categorized as the following land utilization.

Table 1: woreda land use classification

s/n	Land use	Area in ha.	In %
1	Agricultural land	73360	57.3
2	Grazing land	18745	17
3	Natural forest and shrubs land	9306	8.5
4	Degraded land	5583	5.1
5	Swamp and marshy land	1094	1
6	Land occupied by lakes	820	0.75
7	Urban land	821	0.75
8	Settlement	10536	9.6
Total		**109729**	**100**

Source: ARDO of Dendi woreda, (2014)

3.1.5. Forest management and the setting of selecting research site

The Chilimo-Gaji national forest extends over parts of seven kebeles of the woreda. Out of twelve FUGs in Dendi woreda, in seven kebeles only three FUGs were purposely selected for the present study. These were Chilimo and Jijiga from Gare Arera kebele and Gaji FUGs from Yubdo Laga Batu kebele. They are located to the northern parts of Ginchi town and southern part of Jaldu woreda. Chilimo FUG is bordered by Jijiga FUG on the west, Galessa FUG on the north,Dano Sangota FUG on the east and Messalamiya FUG on the south. The villagers are mainly indigenous Mecha Oromos, but there are also small numbers of Gurages, Amhara and Kembatas who migrated to work in the saw mill and have settled permanently in some areas around the forest and notably in the Chilimo enclave inside the forest (Zelalem, 2005). Jijiga FUG is bordered by Warabo in the north, agricultural land in the west and Chilimo FUG on the east and agricultural land use in the south. Gaji FUG bordered by Goban FUG in the east, Tiyo

FUG in the north, Messalamiya FUG in the west and agricultural land use in the south and is closer to Ginchi the capital of the Dendi woreda, and close to an all weathered road compared to the other FUG found in the woreda and more or less exposed to fire wood and charcoal market force.

Although the selected FUGs and their settlements are situated within the same ecological and administrative divisions face similar problems, they differ in size mix of community and resource endowment. Chilimo, Jijiga and Gaji FUG cover 695, 176 and 887ha.respectively. Gaji FUG has the largest members (248), followed by Chilimo (134) and Jijiga (110). In terms of high forest concentration and density Chilimo is the densest and have high natural forest and with much existence of commercial forest that is eucalyptus tree and *'Tid'* serve the member with income gaining option so as to motivate the members to manage forest. Gaji forest is relatively better than Jijiga forest with its smaller hectare of commercially planted forest like eucalyptus tree and '*Tid*' to serve the member with income gaining choice so that the members will be capacitated in financial issue and motivated to attain the signed objectives with the government. But Jijiga which was already devoid of commercially planted tree is now degraded and encroached to agricultural land use and the communities have no income from the plantation forest except selling for the fire wood and charcoal.

With respect of formation, Chilimo, Jijiga and Gaji FUGs were the first to sign PFM (community bylaw 1998).The agreement was facilitated by FARM Africa when it was carrying out the PFM approach in forest management. The contract document contains internal bylaw which in principle, committee signatories to certain allocation of right and responsibilities in forest management. Such document were developed to provide divisions of roles among forest users and officials and to create a sense of security in forest management by providing legal mechanism to challenge any violation of right of particular groups. The PFM plan and agreement defines the roles and responsibilities of the communities and the

Hence, the government's objectives are to maintain and protect the quality and extent of forest, ensure legal and technical support and monitoring, ensure conservation of biodiversity of the forest, and bring about a forest management system in which sustainable harvesting is realized through sharing of responsibilities. The communities objectives are obtaining various benefit in terms of goods and services from the forest on a sustainable basis facilitated through

legal recognition by the government, limited resource extraction based on PFM prescription, develop forest so as to earn increased income, obtain support to stop non members harvesting of the forest so that a lasting forest management is realized in collaboration with the government (FUG bylaw 1998).

3.2. Research Methods

3.2.1 Research Design

The study aims at exploring the various factors affecting participatory forest management and examines the power relation among grassroots actors to achieve the objectives of the program. Hence; the study used pure qualitative methodology of data collection techniques where by qualitative methods of data analysis was employed. This method of data collection is chosen to get the detail information on the issues under study.

3.2.2. The Sampling Techniques

The study primarily focuses on parts of Chilimo-Gaji forest which is currently under PFM program. There are forty eight rural kebeles in Dendi woreda that use the forest for different purpose. However, the PFM scheme is being implemented in parts of the forest extended in seven kebeles of the study woreda. Currently, there are about twelve forest users cooperatives (FUCOP) were formed at different time and were under the process of implementing PFM.

Table 2: Forest user group in Dendi Woreda under PFM plan.

Kebeles	Forest user group (FUCOP)	Total forest area(ha)	Total no FUG members
Gare Arera	**Chilimo**	695	134
	Massalamiya	910	115
	Jijiga	176	77
Galessa	Galessa	348	174
Dano Ejersa Gibe	Dano Sangota	327	131
Tanko	Goban	188	83
Yubdo Laga Batu	**Gaji**	887	248
	Yubdo Gerarsa	148	43
	Yubdo Kashina	180	128
	Togicha	241	49
Galessa Kota Geshar	Warabo	664	206
Qaba Bareda	Tiyo	133	51

Source: Cooperatives promotion office of Dendi Woreda, 2014.

In order to undertake the study three FUCOPs operating in the kebeles of Dendi wereda were purposely selected out of the twelve FUGs. These are Chilimo and Jijiga FUCOPs from Gare Arera kebele, and Gaji FUCOPs from Yubdo Laga Batu kebele.

The reason for selecting the three FUCOPs is firstly, forest density and forest coverage in these areas is reducing; secondly, due to the highest concentration of plantation trees and high value natural forest in the study area and thirdly due to its accessibility and its convenience to me to gather data through interview, focus group discussion and observation. To identify the respondents, list of forest user groups (FUG) who stayed for more than ten years in the group in each respective study site was prepared using documents available at the Bureau of FUG office. Systematic sampling was used to identify respondents for focus group discussion. Snowball sampling was used to identify respondents for interview from the members and focus group discussion for non members. The rationale to use this sampling method was to select key informant individuals who have no special relation with FPC and who are not their relatives so as to get genuine information related to dynamics of actors interactions in the management of forest. Expert sampling methods was used to select officials from FPC and woreda officials. The advantage of this approach is that since experts tend to be more familiar with the subject matter than non experts, opinions from a sample of experts are more credible than a sample that includes both experts and non-experts

3.2.3. The Data Sources

Both primary and secondary source of data were used for this study. The primary data was collected in the form of focus group discussion from forest user groups (FUG), key informant interview from FUG and from woreda concerned experts, and direct observation techniques in the field. Further secondary data sources include, projects reports and community bylaws.

Field observation

The main advantage of this method was assumed to be free from subjective bias if observation is done accurately. The information obtained under this method relates to what is currently happening and not complicated by either the past behavior or future intentions or attitudes. This method is independent of respondents' willingness to respond and as such is relatively less demanding of active cooperation on the part of respondents as happens to be the case in the interview or the questionnaire method (Kothar,C.R. 2004)

Hence, direct observation has been conducted on the selected study area so as to observe the regeneration or degradation status of forest under the study area. It is mainly emphasized to have clear information and real practices of the forest management so as to triangulate with the respondents of focus group discussion and key informant interview.

Focus group discussion

Focus groups discussions are a form of group interview, though not in the sense of backwards and forwards between interviewer and group. Rather, the reliance is on the interaction within the group who discuss a topic supplied by the researcher, yielding a collective rather than an individual view (Hatch, 2002)

Hence the participants interact with each other rather than with the interviewer, such that the views of the participants can emerge as the participants' rather than the researcher's agenda. It is from the interaction of the group that the data emerge (Morgan, 1988).

Therefore, focus group discussion is also another qualitative method of data collection instrument that was employed for this study. Accordingly, three focus group discussions are conducted on the three FUGs of the study area. The numbers of participants in each focus group were six. Participants in this discussion were selected from ordinary members of FUG in the study area. The permanent member of FUG whose year of being a member was above ten years was purposely selected. Because these people have served as permanent members of FUG for ten years and were assumed to have detail knowledge on practices of forest management and encountered problems. In the respective groups of the study area, the group is divided in to two parts. That is the males group and the females group. Three males and three females for each study area were discussed separately and the division was purposely done to increase the confidence of female to speak more on the problem at hand. The non members of FUG from the two *kebeles* of the study area were also participated in focus group discussion and the participants' numbers were six for each *kebeles.*

Key informant interview

Interview, as an interchange of views between two or more people on a topic of mutual interest, sees the roles of human interaction for knowledge production, and it lets the respondent to speak confidently (Kvale, 1996).

Hence, in-depth interview with key informant was conducted with selected informants of forest user groups (FUG). These include: six male FUGs (two from each group), other six women FUG (two from each group) members representing each group. In this interview people who are community leaders, model farmers, and elders are purposely selected. These people have profound knowledge on the cause of forest degradation and they can play a great role in explaining about the issues at hand. Forest protection committee members within the respective three forest user groups, three officials from each group including chair person are selected. Moreover, in-depth interview was also be conducted with local government officials, and woreda agricultural and rural development office, the cooperative bureau concerned experts and forestry experts.

Secondary Data Sources

The followings are the major secondary sources that were used to collect data. Books and periodicals, PFM related publications, seminar papers, conference proceedings and previous works such as dissertations as well as socio-economic, Statistical publications as well as project reports, legislations and internal by-law of FUGs.

3.2.4. Data Analysis

The responses of the respondents were collected through ethnographic methods of data gathering. These were focus group discussion and interview according to the proposed questions which were recorded with the help of tape recorder and field notes. These data were transcribed in relation to the questions forwarded to the respondents. To organize the response of different respondents in each study site, different colors of highlighters have been used to mark different ideas and concepts related to the issues under study. For example brown color was used to mark responses related to attribute of users and resources, green color was used to mark response responses related to participation and related problems and red color was used to mark response related to dynamics of PFM actors' interaction in the study area. Based on the specifically marked color similar concepts were grouped and organized together.

The transcribed and organized data from each sample study area were identified as '*Key words'* and '*Expression of key words'*. Key words refer to the general word that has taken from respondents' view that explains the central idea of responses to the questions. Expressions of

key words are words or sentences that explain the key words in different forms without deviating from the intents of the questions.

After the response of each sample study area was categorized as key words and their expressions, each questions, key words and their expressions of each sample area were indexed together to make them easy for analysis. After indexation was completed, tables that have questions, key words and their expressions on their respective column was prepared to facilitate the analysis of qualitative data (see Table 3).

Table 3: The respondents' responses categorized in table format (an excerpt from the whole attempt of data categorization and indexing)

Interview questions		Key word	Expressions of Key Words
1	How do come to be the members of forest user group?	Access to resource	- Proximity to the forest - Individual interest - Rate of dependency on NTFP - Year of staying in *kebele*
2	Is the existing local community size and forest area manageable to run PFM successfully?	Size	The number of members/communities The area of forest block
3	What is the extent of decision making power and democratic nature of FPC (forest protecting committee)	Power	- Corruption - Patronage-client relation ship - Using common property for individual benefit - illegal tree logging

Based on the issue in the key words, topics and subtopics for data analysis were prepared by following the table. The detail explanation of the respondents' response from focus group discussion (FGD) and interview was performed through narration. In order to ensure the safety and keep the anonymity of the respondents, pseudo names were used for the people who were participate in giving response to the issues under study.

CHAPTER FOUR: PRINCIPAL ACTORS AND INSTITUTIONS OF PARTICIPATORY FOREST MANAGEMENT IN CHILIMO-GAJI

4.1. Principal actors and their roles in Chilimo-Gaji PFM intervention

The key actors in the Chilimo-Gaji participatory forest management are divided in to two categories. The first was the 'local actors' and the second was the 'extra-local actors' and category based on the physical presence of the actors. The *'extra-local actors* were those institutions whose day to day communication with the community around the forest is impossible due to their physical remoteness. These were ministry of forest and environmental protection and Oromia forest and wildlife enterprise. The local level has key actors involved in everyday implementation of the community based forest management through the forest protecting committees (FPC). The key actors at the grassroots level comprise the woreda cooperative promotion office, bureau of agriculture and rural development, Oromia forest and wildlife enterprise Dendi branch and the FPC leadership members and the community members around the forest. As the present study focuses on the local level dynamics of Chilimo-Gaji participatory forest management, it investigated the roles of grassroots level key actors. An organizational diagram of key actors ranging from the top (in this case, state actors such as the FDRE Ministry of Forest and Environment and Oromia Forest and Wild Life enterprise to the bottom grassroots level actors in the study area and forest management intervention is given below .

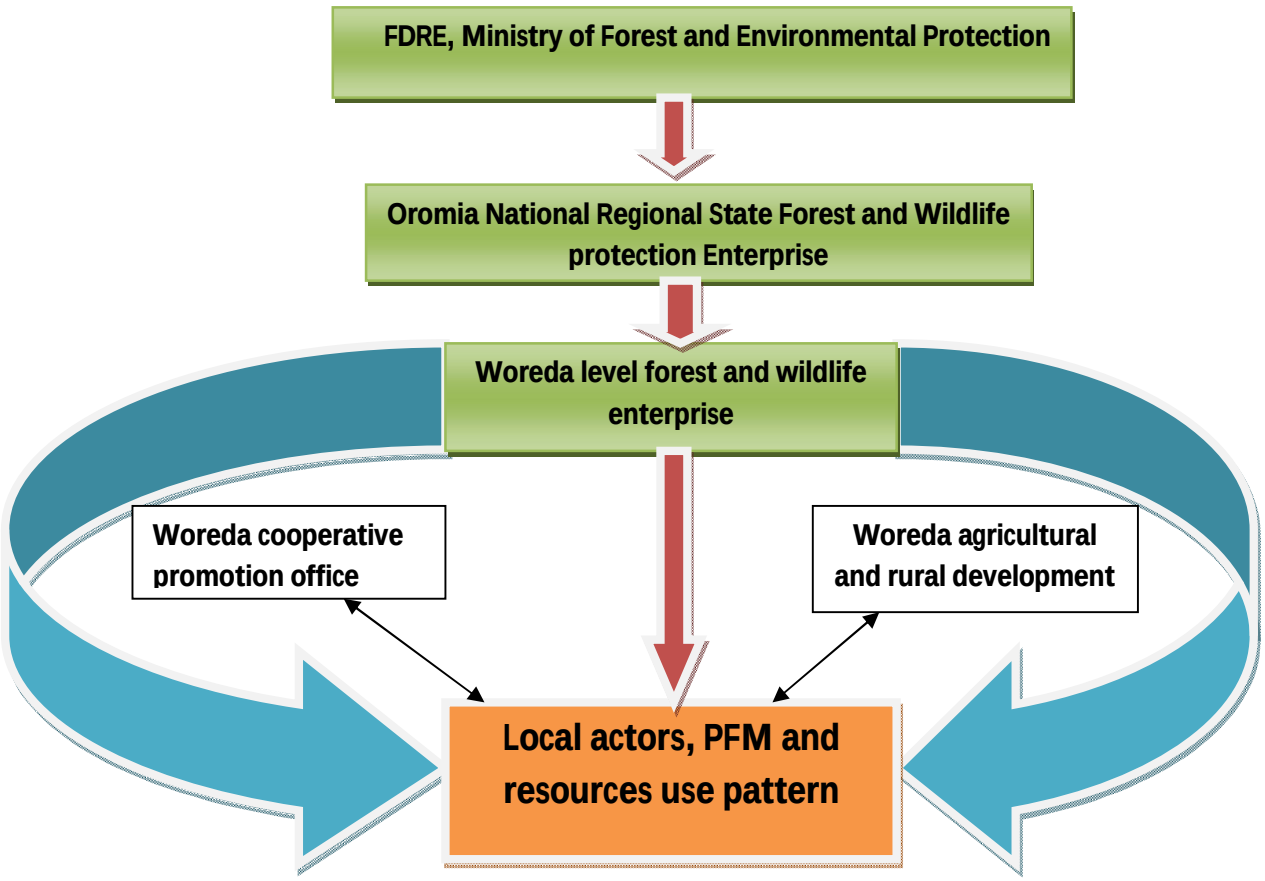

Figure 4: The local actors' and extra-local actors' interaction in forest management

Source: Developed by the author based on related literatures

The role of woreda cooperative promotion office

The activities of the Cooperative Promotion Office at woreda level were varying in organizing and managing financial resource of cooperatives. Among these community based forest management in Chilimo-Gaji forest is one of the forest user cooperatives organized by the woreda cooperative promotion office. Expert of the office expressed that their office provides short training to members on forest management principles. Preparation and periodically reviewing of forest management plan in collaboration with forestry service personnel and FPC; identifying and planting tree seedlings through enrichment planting and new planting.

In order to enhance the effectiveness and successful implementation of the PFM, regular skills development and capacity building works might be needed. Hence the expert stated that technical skill and capacity development must be a demand-driven support to the community

organization with regards to sustainable forest management trainings. The support given were on topics like forest development, forest protection, forest utilization, and marketing, conflict management, financial management and administrative support. Ensure that all members carefully implement forest management actions of forest development; protection, monitoring, and utilization plans. Collect membership monthly fee and insuring that all members are paying the needed fee. Share payments and benefit sharing related process is also adjusted and controlled by the woreda cooperative office; establishing nursery site and produce seedlings so as to reforest and gaining income from selling of seedlings; based on the interest of members engage in other activities that will benefit them, in collaboration with the concerned stakeholder encourage women participation, etc. But according to this expert, the cooperative promotion office fell in budget constraint to capacitate these groups as much as needed.

The other role of woreda cooperative organization is supporting the FUCOPs in legal bases. PFM is not to replace government management in the absence of legal support. There must be legal recognition and support for community initiatives. If the judiciary and police are not supporting community actions, the success cannot only depend on the empowerment of the community. This forest, which is under PFM, still faces '*illegal'* encroachers. According to interview made with the woreda cooperative office expert, these are people who abandoned their right to membership during the inception process at their own discretion, while some are those excluded on the basis of set membership criteria. These non-members are repeatedly caught in some areas while illegally harvesting forest products. The office hired lawyer to defend the right of the group members. They also give the service of facilitating between the illegal tree smuggler who are caught and between court and police station. The cooperative promotion office key expert complain that facilitating decision on those who commit illegal act on forest is not as fast as needed because the FPC cannot immediately present the accused and eye witness on the spot

Role of Executive Committee (FPC)

In order to implement the forest management plan and agreement document and increase the decision making capacity on forest issue, the general assembly of each FUGs has elected an executive forest protection and development committee. The election of executive committee for forest protection, in principle is conducted democratically in a meeting of all the organized

forest dwellers. The committee comprises of seven members namely chair person, deputy chair person, secretary, cashier and additional three members. Among the executive committee members, the secretary must be capable of reading and writing because he/she is the one who keeps the records for the FUGs. The committee takes up lots of responsibilities such as executions of the management plan, dealing with cases involving violation of bylaw by individual members, and non members, identifying the protection areas and assigning people to guard the forest. The prime protection responsibility is given for people dwelling nearest to the forest patches, and developing measures of protecting and developing the forest.

The forest committees are normally elected for the three years. The source of fund for the FUGs including: membership fee, sales of commercial forest and non-timber forest product (NTFPs), and fines and penalties. The committee has responsibilities to fine those who violate the community regulation as stipulated in FUCOPs bylaw. When offenders are unwilling or unable to pay the fine or compensation demanded by the controlling group, according to the bylaw, the executive committee members may take to police station individuals who commit criminal against the community bylaw.

The Role of Agricultural Office

One of the challenges for PFM to be effectively implemented was the role of the forestry professionals that they do not devolve their responsibilities. The role of foresters has to change from the conventional protectionist sentiment and the notion of considering themselves as the only custodians of the forest resource, to rural development foresters, taking communities and others as partners to manage and develop the forest resources (Zelalem and Mulugeta 2012). This office is also responsible for assigning agricultural Development Agents (DA) to each kebeles of the woreda.

One of key experts in the office explained that the office has shortage of man power (DA) to assign to each kebele. Especially the natural resource professionals (DA) are needed to support the objectives of community based forest management. But animal science development agents performing their work on the study area were need training on how to manage natural resources (forest). The expert explained that training new skills for them is possible but new training activities and courses are required. Not only training but also job descriptions of the development agent after training at the grass root should reflect what is expected of forestry

extension worker. In the study area natural resource management professionals (forestry extension workers) do not exist. Most of these workers are promoted to the woreda office as expert but their space is not substituted.

During implementation of the PFM plan there could be certain instances where the forest cooperative requires external administrative support from other service providers and local administrators. It is the responsibility of the forestry extension worker to help bring such requests to the attention of relevant officers and local administrative bodies in close collaboration with the forest cooperatives. Some of the administrative support required includes community dealings with forest destruction act and conflict management within the community. Forestry extension workers (DA) at local level need to facilitate to secure legal backing for the engagement of cooperatives with offenders.

4.2. The evolution of participatory forest management institutions in Chilimo-Gaji

The community forest management is primarily based on the concept of participatory forest management and designed to provide room for greater autonomy and control for the communities participating in forest protection. It aims at improving forestry and alleviating rural poverty in the process. Every household which are 'nearer' to the forest boundary living in villages and clusters of villages, particularly those dependent on the forest for their daily needs, have the option of joining FUG to participate in forest protection(community bylaw 1998). These people should become members of forest user group. According to the community bylaw, all the members of FUG become the members of general assembly which is the supreme organ of the members, while the forest protecting committees are selected with the approval of general assembly. Executive Committee (management committee) is the one that is responsible to carry out an approved Forest Management Programme within the scope of their rules.

According to the community bylaw, Executive Committee has to be re-elected by the village community general assembly every three years. After the end of three successful consecutive working years, the committee will be re-elected based on their performance with the approval of community general assembly. During their period, they were responsible to manage and implement all the decisions of the general assembly and with the help of their members such as

Natural resources development, livelihood development and saving and credit committee chairpersons. They are also responsible to prepare a micro-plan and annual plan in accordance with guidelines issued by the woreda cooperative office and Oromiya wild life and forest enterprise.

In the forest user group (FUG) being the dweller of adjacent forest block was enough to become a member. In addition to this there was no need of paying money to participate as a member and '*mandatory saving'* system was not there. Currently the former FUGs were organized together with the support of woreda cooperative promotion office to be legally recognized and become the forest user cooperatives (FUCOP) under the technical supports of woreda cooperative promotion office.

Community based forest Management through organized FUG as a concept and a philosophy was considered by the former bureau of agricultural and rural development, where in all the forest dependent villagers of a village organize themselves into small cohesive group with the objective of protecting, regenerating and managing the forests in the vicinity of their village (Zelalem and Mulugeta 2012). As interview made with one of the woreda expert[1], these groups called ' FUG' ; locally referred to as *'Itti fayyadamtoota bosonaa'* received financial, technical and managerial support from the woreda natural resource management office and from NGOs. FARM-Africa has initiated joint forest management pilot project in 1996 during the first phase of FUG initiation (1996-2004), it faced great challenges from the people who use the forest without any restrictions. Communities around forest resources and elsewhere do need trees and tree products for their livelihood support. If communities do not have legal access to forest resources, and has no certainty of having access in the future, they will continue to use the resource, whenever available, in unmanageable manner. Access rights and ownership responsibilities are critical factors in promoting sustainable forestry (Zelalem, 2005). However, these groups functioned with little coordination often difficult to them to control forest encroachers and illegal tree smugglers

[1] Mr. Jiru Tesfaye was the former focal person represented from woreda agricultural office to facilitate the work of NGO(FARM AFRICA) in inculcating the new style of forest management to the community around the study area since 1996. Now he is serving as expert in woreda environmental protection bureau. Interviewed in March 12/20014

Under FUCOPs, unlike the former FUG, individual members are expected to save money from their own pocket and from the income they get from selling of timber and non timber product in the name of their institution to certify their continuity as a member. This is the necessary condition for them to be member of FUCOP and collecting the registration fee from new members is also the way they accumulate money to increase their financial capacity so as to reduce the budget constraints that encounter during the forest management process (FUCOP bylaw 1998). Rather than participating in saving and collecting money, members have another responsibilities. Among their responsibilities, FUCOP members are individually and collectively responsible for protection of the forest against encroachment, grazing, fires and theft of forest produce, carry out development of forest in line with the approved micro-plan, and engage in awareness building activities. The micro plan should be formulated through participatory appraisal methods involving the inputs of the villagers and the foresters (FUCOP bylaw 1998).

Interview made with the former chairperson forest protecting committee[2] of Chilimo revealed that forest user group members were recognized due to their frequent use of the forest, customary rights or other reasons; the groups may be sub-divided into categories as primary and secondary users. According to this informant, primary users are those who use the forest more frequently, permanently or directly, while secondary users are those with less frequent use and are far from forest boundary. This division is then used to facilitate negotiation among the forest user groups for rights and responsibilities as being members of FUG, a negotiation that may end-up with different rights, or even dropouts of secondary users. There has been a continuous conflict among the members on the exercising of right and responsibilities. Due to this a number of members were dropped out for the fear of the absence of legal accountability/responsibility for forest development and sustainable management.

As interview made with the former woreda forestry expert[3], expressed the ambiguity in the directives made the recognition of the FUG as legal entity very difficult, thus forcing them to transform into Forest User Cooperatives (FUCOP**s**) '*waldaalee bosonaa*. The transformation, however, is not without problem. FUGs and FUCOPs can sometimes be identical when they

[2] Mr.Mengesha Tesema was the former FPC chair person of FUG since the establishment of PFM by FARM AFRICA up to 2004. Now he is model farmer in his kebele interviewed in the field January 21/20014

[3] Mr.Belachew Terefe was the current expert in woreda agricultural office; but served as forestry expert since 2002. Interviewed at his bureau on March 15/2014

have the same members (e.g. in Chilimo 8 of the FUGs, in Gaji 10 FUGs and in Jijiga 4 FUGs) were converted into FUCOPs where all FUG members have became FUCOP members. Similar study conducted in India's, Andhra Pradesh community forest harmonizes with this finding (Sailaja, 2009). The criteria to be member of FUGs are different from the general requirement to be FUCOPs; which states that '*any person living in the operation area of the cooperative and if accept to implement forest management plan and agreement he/she can be full member'* (Zelalem and Mulugeta, 2012 p 66).This statement implies FUCOP was free to all above certain age limit and able to pay membership fee (6 ETB). According the interview made with expert of cooperation promotion office, this general requirement, in the case of PFM was modified that all the former FUG members were entitled to be members where non FUG members are not entitled to be FUCOP members because they were not members of FUG. While there was no requirement of membership fee in the FUGs, but there was always a membership fee to be the member of FUCOPs which is agreed by all former FUG members to strengthen their financial position. This in some cases seems a discouraging criterion for the poor and women forest users who could not afford to pay the membership fee in consecutive months, which caused dissatisfaction among some members of the group.

CHAPTER FIVE: CHALLENGES AND CONSTRAINTS OF PARTICIPATORY FOREST MANAGEMENT IN CHILIMO-GAJI

5.1. Resource tenure securities and participatory forest management

The forest management agreement document signed between communities and the local government contains internal bylaw and allocates right and responsibilities in forest management (community forest management bylaw 1998). Based on an interview made with woreda level forest enterprise expert[4], such documents were developed in order to provide a clear division of roles among forest users and local government officials. It is also meant to create a sense of security in forest management by providing legal mechanism to challenge any violation of rights of particular groups, and by making each group accountable in meeting its responsibilities. According to the views of focus group discussants at Chilimo-Gaji FUCOP, communities around the forests are insecure about the continuity of the PFM project due to different reason. The source of doubt and insecurity feeling are many such as tenure security and property regime, limited support from the side of government, the transfer of permission power from FUCOP to Oromiya forest enterprise to allow house construction tree and Poor financial management

Tenure security and property regime

The questions of claims based on customary rights for certain forest and NTFPs by people from outside of the forest often complicate the working of forest user communities under PFM. Such problem arises often due to insufficient stockholders' involvement and negotiation at early stage of PFM (Irwin 2004). There were people who have no land for agricultural purposes and these people were using forest and forest product for sale so as to sustain their life and feed their families. These problems are found to be very problematic in Chilimo and Jijiga FUCOP. It was noted in a focus group discussion that there had been people who claim traditional property right over different forest product and NTFP as they live nearby and adjacent to the forest. The collection of dry wood for sale was vested to the poor and very poor as well as community who handed over 'their' agricultural land to use it as buffer zone of forest for community of the study areas, (community bylaw 1998).

[4] Mr. Mamo Doyo was the former development agent in Dendi woreda kebele. At the time of this research he was served as forestry extension of Chilimo –Gaji forest under 'Suba district, the branch of Oroimia forest and wildlife protection'.

One of the focus group discussants in Gaji FUCOP noted that PFM has brought a solution for the degradation of forests which used to be open access such as commercial wood for construction material, fire wood and grazing of livestock. Currently as it was physically observed saplings of *Juniperus procera* was colonized the already degraded mountain parts of this site. Similar studies also show that the general impact of PFM implementation has been an improvement in forest cover and condition (Blakie, 2007; Tsegeye et al., 2009; Winberg, 2010). The issue of non members who claim the use right over the forest resources was still not resolved. According to them, one important concept on non-user claim in this respect is that hinders forest protection and monitoring activities by user was that of installing traditional in-forest grazing with their cattle only for their exclusive personal benefit. Such claims were also reported even among members who handed over '*their*' own plot which serves as buffer zone of forest for communal purpose upon the negotiation made between the people who have the agricultural plots around the forest. In relation to this, focus group discussants at study area opposed that the accumulating of money by these people generated from NTFPs to boost individual luxuriate has deprived substantial portion of members' income from directly benefitting by selling NTFPs due to unpermitted access.

The focus group discussion made with the Chilimo non user group who claims the use right explained that they were used to graze their animals in the forest and use the timber product without any restriction. After the implementation of PFM, they were excluded from forest use on the ground that they do not fulfill the criteria recently imposed by the FUCOP bylaw. Moreover, chair person of the Chilimo forest user group explained that most act of illicit tree cutting is recorded by these people under the pretext of grazing their cattle. Further, they are not willing even to hold accountable for any soil erosion and tree uprooting of sapling by water runoff due to prevalent illegal animals grazing in the forest especially on the Dega parts of the study area. Over all, the issue of non-forest users claiming traditional use right is found to have an adverse effect on community participation and remained to be one source of insecurity for members in participatory forest management.

The other problem according to interview made with the expert of cooperative promotion office was that, some articles have also led members to be skeptical about the continuity of the scheme. For instance, one of the articles in the agreement document (***Article 2 sub article 6***) of the Oromia Forest Proclamation states that: The forest property right remained under the state

while the FUCOP provided with use right. Further, the document forbids that land use change by the FUCOP while the government party can, up on paying the necessary compensation take over the forest if it so requires employing the resource (land for other purpose). Hence according to the contractual agreement document, forest users were given '*the right to use'* i.e., undefined use right, and not '*ownership*' of forest. According to Forest Development, Conservation and Utilization Proclamation of ***FDRE No. 542/2007***, only private and state forest ownership is recognized by the government. Therefore, the rights are conditional, transitory and dependant that the users keep the forest as far as government wishes them to use and develop the forest. Consequently, most respondents stated that this option left for the government with probably unwarranted authority that exposed most members to be doubtful regarding the continuity of PFM. Literature have also confirmed that when a government, which previously denied access to forest resource, vested only use right but still maintained the ownership right over the forest, the new scheme have often not been met by a feeling of trust (Lindesy, 2004).Thus, community confidence in the continuity of the PFM scheme was an important factor influencing successful management of common-pool resource in the area.

Government support

The strong parthenership between the community and the government is required in order to institutionalize a successful PFM scheme (Mulugeta, 2012). Discussion participants of the study area explained that in the agreement signed between the government and the communities, one of the responsibilities of 'woreda' government officials is to monitor the condition of the forest by taking inventory at least once a year. Community members also have the responsibility to assist government officials in taking the inventory. However, such inventory and monitoring have undertaken only twice since the establishment of the project. Although the forest management document elaborately discussed on the role of the government in safeguarding the interest of the community, the present level of partnership is too poor to allow such kind of engagement.

The overall poor financial capacity and poor integration of woreda cooperative office, bureau of agricultural and rural development and forest protection enterprise of Dendi branch to facilitate the process of co-management arrangement in order to support the community has also become a source of doubt. As discussed previously, helping the community to set up the

right kind of management system, providing technical backstopping, intervening when communities fail and mediating among villages are essential assistance which are critically in need. Most asked informants at study sites responded that most community members still need overall technical and some training to empower them with participatory forest management skills.

On the other hand, interview made with bureau of cooperative promotion expert have made it clear that securing additional budget for PFM is difficult as funds are hard to come by even for other more urgent activities. But the forest enterprise (Dendi branch in this case) gain about 30% of forest plantation income. Therefore, the issue of financial supporting and recurrent training is vested in Oromiya forest enterprise. Moreover, most community members feel that there is limited action being taken on those members who illegally cutting trees coming from the nearby villages and within village of the study areas. The local police were sometimes reluctant to respond to the FPC's claim as it was false claiming contrary to the reality on the ground. Besides the legal system was slow and some cases take long time and were dismissed altogether at the end for lack of sufficient evidence. Often penalties given were not usually compatible with the offence and several offenders even keep on committing the same mistake even after paying the fines.

One of the key informants[5] at Jijiga explained where a single individual was accused seven times for his encroaching the forest land for agricultural purpose. But action taken by local government againest such activities in the study area was limited. PFM participants in Chilimo-Gaji both in group discussion and individual interview indicated that major challenges that PFM would encounter in the future may emanate mainly from the side of the Government. They suspect that the Government may not be strongly committed to PFM and may not allocate sufficient resources to monitor and support the initiative. Similar studies conducted in Bonga PFM showed the same result (Tsegaye at al., 2009). All these are, in fact, source of doubt for most community members regarding the continuity of the scheme.

[5] Shaashoo Mosisa is 50 years old and respected elder of the community at Jijiga FUCOP (jaarsa biyyaa). Interviewed at his house on December 18/2013

The transfer of power from FUCOP to Oromiya Forest Enterprise to allow house construction and fencing trees.

The right of providing trees for house construction for the members of whom house and fence is burned or get old based on different criteria was clearly stated in community forest management bylaw. Although local government officials have the final say on income from the natural forest and plantation, the communities were given the right to decide how to use logs from the forest for subsistence purposes, mainly to build or repair houses and fences.

But according to interview made with key informants FPCs at all study areas previously had full right to give permission for the members to cut trees by clearly evaluating the level of difficulty encountered by members. But this FPC's responsibility was now already transferred to Oromiya forest and wild life conservation enterprise. This frequent change of responsibility as one of the key FPC bitterly explained, it further degraded forest and exacerbates the existing illegal tree smuggling because of the bureaucracy to get timber related forest product to solve immediate problem needs very long time and the community looks for another option to satisfy their immediate needs. Community based forest management can only attain its objectives only if ownership of the resource is transferred to the community (Carswell, 2007)

The focus group discussions at all study areas of Chilimo-Gaji FUCOP explained that the communities prefer illegal tree cutting to asking permission from the woreda forest enterprise which was not quick enough to respond to the request. Interview made with one of the members in the study area explained that immediately before the transfer of this responsibilities to forest enterprise the then FPCs allowed their relatives to excessively cut and use trees on assuming that this use right will totally be prohibited in the future. But in contrast to this the study on the future scenario of Chilimo Forest indicated that trees for house construction and fencing were given by the forest committees (Habtemariam *et al*., 2009). In this issues "*The last-minute"* logging while forest associations were being established, probably due to concerns that community may not be allowed to use the forest anymore and deforested large hectare of forested land due to feeling of insecurity of the resources future use (JICA, 2011).

Poor financial management

The utilization of resources and profit maximization is the main objectives of forest user cooperatives. In the study area, plantation trees are among the major revenue generating natural

resources except for Jijiga which does not have plantation tree. In addition, this money collected in the form of saving, the sold out confiscated fire wood and charcoal and penalties are among the major income for the forest user cooperatives (bylaw 1998). But the poor management of these money resulted in uncertainty of resource management among the members. For example in Gaji FUCOPs, money collected from timber selling was embezzled by one of the forest protecting committee members (FPC). Members were claiming that their money was arbitrarily used by individuals. In focus group discussion the members explained that about forty thousand (40,000) ETB is embezzled by FPC. Due to disappointment over misconduct by the leaders on benefit sharing, members of communities have tried to vote out the leader. This requires the approval of local government officials. However, community members were left powerless because government officials were reluctant to approve their request. Even though the members accused the committee it was not easy for them to overcome the situation because of the relationship between the local government officials and the committee.

This issue is also common to Chilimo and Jijiga FUCOPs. These groups do not know even where their money goes and how it operates. But forest protecting committee of these areas explained that they often called the members discussed on the process of forest management and explained the amount of money that the group have in the bank. Key expert at the woreda cooperative organization also asserted that financial management of Chilimo-Gaji participatory forest management was very poor and need further improvement. Therefore, these all above mentioned problems have become sources of insecurity of resource management among the FUCOP of the study area.

5.2. The socio-economic status and benefit sharing in participatory forest management in Chilimo-Gaji

The users' socio-economic status participation in forest management

Socio-economic status of the people is one of the barriers which limit local people's participation in participatory forest management (Singh, 1992). In this study, too, it is revealed that socio-economic characteristics of the forest user group members under participatory forest management scheme affect the community participation. The problem of heavy dependence on non timber forest product(NTFPs) such as charcoal and fire wood selling was the fact that the

poor forest users are mostly interested in maintaining a regular supply of forest product from the community forest. In interview made with woreda cooperative promotion office, it emerged that the poor house hold members whose farm land was incorporated to forest zone, were given the rights to collect and sell fire wood and other NTFPs. As a result, it was learned that this transfer of right of collecting economically useful forest and NTFPs from FUG to individual has made some members to comply with the common rule. For instance, the FUG record book shows that it was by and large the poor households who have paid the most fines for illegally using the forest.

FGD at Gaji further indicate the following:

> *Members of FUCOP who heavenly depend on forest product and economically poor have to be active every day to sustain themselves and their families' livelihoods. For poor households, being forest user cooperative member does not provide an immediate benefit in respect to their basic needs; rather it was a waste of their 'productive time'. While the poor need regular supplies of forest product to sustain their livelihoods any decision to further protect the forest would likely to work against their interest and marginalize them. Therefore, another option should be set for the poorer.*

Similar study conducted in South East Asia also depicted that high forest dependent community members and poverty level reflect that other employment options that offer higher returns are not accessible to the poor (Oliver-Springate and Blaikie, 2007).

Moreover, an interview made with Chilimo forest user group also indicate that the extent of members' livelihood dependency (such as for income) on forest affect their level of commitment in participating to implement forest management plan and associated bylaws. Here, the work load of FUCOPs members in forest management activities such as forest development, protection and monitoring engagement at community nursery establishments and tending of natural regeneration inside natural forest often prevent the poorest members from earning money that would have been obtained through the supply of charcoal and fuel wood to Ginchi town and adjacent communities**.**

Consequently, poverty often pushed members to focus on short term benefit rather than long term ones which would have been generated from community forest management. (Habtemariam et.al, 2009) have also reported similar finding in his study around Chilimo forest. In contrary to this focus group discussion of the Chilimo FUCOP was the opinion that

those incomes they obtain from the sale of plantation of *eucalyptus* and *Tid* trees are incentives for them to protect and develop the forest continuously. In Chilimo FUCOP interview made with the women who previously constantly sell charcoal and fuel wood to Ginchi town:

> *We used to obtain various benefits (incentives) from sale of communal forest products and also provided with a number of assistances from the sell of communal trees. We used to buy agricultural inputs by the money we earn from the sale of forest and forest products. However the support was inadequate for us to forget dependence on forest and forest products*.

It was therefore common to here poor members usually complaining their limited access to forest and they claim that benefits they got are not commensurate with the time they spend to manage the forest resources. Literature also confirm that involvement of local people and sustaining their interest in resource management is more complicated when the benefit are not sufficient, immediate or widely distributed (Jones, 1999)

Benefit sharing and Participatory Forest Management (PFM)

The finding of this study have revealed that in all PFM initiatives of the study area, the participant communities have more or less the same opinion that they have started to gain promising benefits from community forest management. In focus group discussion at Gaji and Chilimo FUCOPs, they also reported that benefit received; together with perceived future benefit encouraged them to participate in forest management activities. These factors particularly highlight the positive relationship between provision of incentives in which communities are interested in and determine the success and sustainability of PFM. Many scholars also argue that local people need to benefit in some way if they are to manage common pool resource to meet the broader societal goal of environmental improvement (Ostrom, 1990; Yonas, 2007).

In Chilimo FUCOP the respondents stated that access to forest based products like beekeeping and the exercise of controlled grazing encouraged communities to develop a strong sense of user rights over the forest resources. They also explained that they have got training on the use of forest uses and their management. In the female's FGD at Chilimo FUCOP they stated that they were/are benefitting from the wholesale of the timber products. They used money for purchasing fertilizer to increase yield so as to reduce dependency on forest product. In contrary to this study conducted at Guatemala showed that women have maintained their

access to fuel wood and forest products, while men have reserved the right to harvest timber (Wittmann, 2005). Key informant forest protecting committee from Chilimo FUCOP also stressed that as long as the members protect and develop the forest, as indicated in forest management document, they retain and exercise full use right indefinitely.

Concerning the overall forest condition often measured through the quality and quantity of trees, based on observational evidence, high value trees and larger natural forests are confined to the very inaccessible and pocket area of the steepest gradient of the study area of Chilimo and Gaji. The buffer zone of the forest is already changed in to bare land or devoid of natural trees without replacement and converted to agricultural lands. This evidence was especially serious in Jijiga where buffer zone and the block of forest as a whole have rapidly degraded. FGD conducted in the jijig forest user cooperative stated that there have not been any positive changes indicated in the forest condition since the establishment of participatory forest management. Even high value trees such as *Junipers procera, Podocarpus falcatus, Olea europaea subsp.Cuspidata, Hagenia abyssinica* tree are illegally logged. In addition to this, according to interview made with key informant of forest protecting committee show that fire wood had been the dominant forest product extracted and its unregulated extraction has been causing serious damage on the growing stock as well as regenerating shoots. As I observed during field data gathering, there is no plantation tree such as *eucalyptus* and *Jniperes* in Jijiga FUCOP as this plantation satisfy the tree requirements of the community instead of using natural forest. This further escalates the degradation of natural forest and the reduction of the size of forest block. Zenebe *et al*., (2007) have reported similar findings in their studies conducted in Lode Hetossa district, central Ethiopia.

According to respondent at Gaji FUG the quality and quantity of artificially planted trees, eucalyptus has increased this is mainly because according to their internal bylaw this tree is not allowed for sell even for poor forest dependant until it gets mature to supply to the market, so that it is easy to clear cut and keep regenerated. Natural resource expert at woreda agricultural office and Development Agent (DA) assigned to *Youbdo Lagabatu kebele* also stated that forest resource especially some recently growing tree of Gaji FUCOP increased in value because access to them by the members itself (except for house construction) is not freely accessed.

The key informants FPC chairman at Chilimo FUCOP explained that following the formulation and implementation of FUCOP, the previous unrestricted fire wood extraction practice is highly regulated and controlled. Members are closely monitored to ensure that they use shrubs, not high value tree for burning charcoal; they sell fallen and dry twigs and branches as fire wood instead of felling and splitting mother tree, and restrictions on certain type of trees while entering to the forest. Thus, such measure have resulted in improved regeneration due to better survival rate of young seedlings as well as natural regeneration at numerous open areas. During data collection it was observed that nursery management for the establishment of new woodlots in degraded area adjacent to natural forest particularly in Gaji and Chilimo FUCOP.

5.3. Forest boundary and community size in participatory forest management in Chilimo-Gaji

Clarity of boundary and related forest protection problem.

Among many factors that influence the successful functioning of common property arrangements like PFM is the issue of boundary between users and non users (McKean, 2000). The studies also revealed that in some cases the boundary between users and non-users is not either very clear or not accepted by all concerned groups. Such problem is very serious at Jijiga FUCOP where conflict over the forest resource has occurred. Interview with chairperson of FPC at Jjiga also disclosed that such boundary demarcation problem arose from the investigation and negotiation stage where the currently excluded groups were relatively closer to the forest but their kebele was different from Jijiga by then[6]. Now these people are incorporated to Jijiga and raised the use rights on forest resource. In focus group discussion of non members of forest user group Jjiga and Gaji expressed their view as follows: '*the boundary delineation process was carried out without sufficient assessments of the area and consensus of the people claiming uses rights'*. They further affirmed that forest has been freely used by their fathers and forefathers since antiquity and they strongly opposed their exclusion from the usage of forest and NTFPs. One of the woreda key informant expert[7] has the view that the prime forest protection responsibilities had to be given to the nearby communities rather than distant

[7] Mr. Tesfaye Tulu was the former Gare Arera kebele Development Agent (DA) since the establishment of PFM in the study area. At this time he is serving as cooperative promotion expert in Dendi woreda

ones in order to ensure effective forest management. But study conducted on these issues indicated that distance from forest has nothing to do with the decision of active participation (Alemtsehay, 2010*;* Yemiru et al., 2011). Community also realized that they could no longer get access to firewood easily due to the scarcity of forest resources and that the better choice was to get such access by involving them in PFM.

Accordingly, Jijiga forest adjacent dwellers, who were excluded from the forest use right put pressure on the forest resource. The size of this forest which has been 176 hectare during the boundary demarcation process of 1996 was now reduced to 141hactar due to the encroachment for expanding agricultural and pastures lands (woreda forest enterprise, 2014). Focus group discussion participant at Jijiga further confirmed that illicit tree felling by the 'outsiders' and unemployed young people in the area who claimed membership right was serious problems to protect forest.

In Chilimo FUG the buffer zone of forest area is already encroached to agricultural land. The clearance of shrubs and trees at night near the farm land to expand agricultural land is commonly observed. These people always process the wood in to planks and construction poles usually at night and get it smuggled to nearby towns and other smaller urban vicinity. Further, most acts of illegal NTFP collection is posed mainly through non-members claiming customary use right. Illegal expansion of farm land by the newly formed family members is also another problem. Similarly; such problems also rose from members. In Chilimo for instance evidence of the expansion of farmland by ex-servicemen of the sawmill[8] at the edge of forest and in the center of forest is clearly observed. On this issue an eighty years old key informant [9] affirmed the following

> *The current in-forest dwellers and many more households residing inside the forest are continuously expanding their farmlands in to the forest and also facilitating situation for their children. These residents were resided there during the overthrow of emperor Hailesilasie's regime; the joint agreement with Italian investor was abolished and the sawmill factory was closed down in 1975. After closing down of this sawmill the workers who had come from different regions of Ethiopia served as workers of sawmill were disbanded and some of them returned to their original place. The others who left there were constructing their house in and around the forest to*

[8] This sawmill was established by one of Italian investor in joint venture with the then Ethiopian government(Hailesilasie regime)

[9] Mr. Makonnin Wakjira was an 80 years old and the former coordinator of the Chilimo forest sawmill. Interviewed at his house January 15/2014

sustain their life by selling timber and NTFP because they were not given a plot of land for farming activities

Figure 5: Settlements inside Chilimo-Gaji forest

Based on observational evidence, Gaji FUCOP was confined to the mountainous and agriculturally unfavorable areas. As a result of this the issue of encroaching forest for agricultural land expansion is not problematic in the area.

Size of community and resource in participatory forest management

The optimal size of forest per community or matching group size to ecosystem size in order to ensure effective participation was one issue with diverse outlook (Tirhas, 2009).There are many instances where smaller groups do seem better able to sustain common property regimes. Although the task of dividing responsibilities and benefits may favor small and cohesive user groups, the task of managing and exercising control over the resource may call for a larger body that encompasses all those with a claim on the resource. It has been widely argued in different studies that small homogeneous groups, confined to those with similar views on the use of the resource, are more likely to be successful than larger, more diverse groups (Gibson et al., 2000; Tirhas, 2009).

Hence, it was essential and appropriate to base the investigation in line with attribute of each groups (resource and users) mentioned above. Accordingly, the need to have whether a large group or a small seemed to have different opinion when triangulating the data obtained from the community and woreda experts. Focus group at Chilimo FUCOP have the opinion that 695 hectare is too big to manage for a people of 134 members. In relation to this one of the key informants[10] from Chilimo FUG stated that: limited number of household often face difficulty to mobilize forest protecting activities. This informant further stated that for individual members the frequent forest foreseeing (turn) for example twice a week affect the commitment of participation in forest management. Chair person[11] of the group also stated that the support from kebele administration was greatly undermined due to distance and relatively inaccessible forest extension. The village is far apart and it would be virtually impossible to ensure regular supervision of progress by the woreda forest enterprise and cooperative promotion office. Consequently monitoring and enforcing community bylaw were often problematic due to the above mentioned problems. In addition this informant also stated that due to the afore-mentioned distance related problem of forest guarding, about ten to twenty trees are illegally felling and taken out with members and non members of FUCOP per day from inaccessible forest areas. Groups needs to be large enough to mobilize sufficient resources for an effective monitoring program and challenge those who attempt to break community rules and eventually to sanction them (Agrwal, 2000)

One of the experts in the bureau of cooperative promotion told me that the financial and human resource available to carry out policing the forest was often inadequate and this is the responsibilities of grass root actors. In addition, on PFM there was no need of hiring forest guard who monitor and enforce the rule and carry out their duties. According to this expert, additional members of more than 140 resulted in further degradation of forest, because the number of members should be considered with the capacity of the forests. This expert was of the view that community should be small in order to well manage each other.

[10] Mr. Tulu Jilcha is member of forest protecting committee and he is leader of controlling committee in Chilimo FUCOP. This interview was conducted at field level in January 10/2013

[11] Mr. Feleke Mekuria was the newly elected chair person of FPC of Chilimo FUCOP. Interviewed on January 23/2014

Focus group discussion of Gaji forest user group also generally agreed that many of the forest protection problems in the group are much more related to the ineffectiveness of their group to carry out controlling and monitoring the whole extent of the forest. The problem is further complicated not because of only mere big size of forest block but also difficult terrain and absence of clear boundary in some parts of the forest block. Some key informant at Gaji FUCOP argued that the problem is not only due to large size of forest block but also the heterogeneity of people's interest in forest utilization and protection issues. Here, heterogeneity refers to occupation and ethnicity of individual members. For instance most in Gaji forest dwellers (*Gurage, Orormo, Amhara*) members in the group are highly forest dependant so that they are largely interested to sustain regular supply of charcoal and fuel wood as a matter of livelihoods (poorer group).

One of the forest protection committee at Gaji FUCOP further indicated that due to groups' diverse interest, they at times face difficulties to create and maintain processes that would organize their members and ensure their contribution to PFM activities. In Jijiga FUCOP the above mentioned user attribute related problem was not the case rather resource attribute. Focus group discussion made with Jijiga community members show that their major problem in forest management was the benefit they gained from the resource. The high value natural trees are already used up in this site; there is no artificially planted commercial forest. In addition to this those remained thorny bush, shrubs such as *Carisa edulis* and saplings are browsed by the goats of those powerful community actors and illegal grazers. The groups are now reluctant to keep their turn to guard the forest because of absence of incentive they gained from the forest. As study shows success of community based forest management may depend on the value of the resource to the community (Carswell, 2007). One of the key informants[12] has reported the following,

> *This forest was transferred to the community around this village by an NGO FARM Africa; we accepted and promised to keep the forest and use the forest product. But due to illegal tree smugglers and encroachers to expand farm lands, the site of forest gets shrink. A Government official appears to be minimal and hence the degradation of our forests continues without abating.*

[12] Mr. Bacha Teshome was 55 years old and model farmer, community (Garee) leader and the former FPC chairperson of Jijiga FUCOP. Interview was conducted at field,December, 15 ,2013

5.4. Sources of conflict and participatory forest management in Chilimo-Gaji participatory forest management

Conflicts of interest on forest and NTFP

As study shows conflict over control and use of forest resource are an inherent condition of forest dweller communities and resources utilized and managed by groups (Christopher, 2013; Melaku, 2003). Further, focus group discussion and individual interview in Jijiga FUCOP revealed that the conflicts often encountered are intense in its nature. The conflict is among members that have ill-feeling and dissatisfied due to the restriction imposed over the previous unlimited access. These ill-feelings sometimes intensified and create problem on participation in forest management. This has been witnessed particularly at Jijiga FUCOP because communities are unable to stop those intruders because they were continuously accused and no solution has been given to them for the crime they made. These groups also take offensive measure against the community who protect the forest in the form of direct attack and warning. One of the members of FPC[13] in Jijiga stated that

> '*We are unable to conduct our day to day activities such as social relation with neighboring communities, because of the direct physical attack from the excluded community on us; by now we are on the verge of stopping forest guarding*'.

In relation to this focus group discussion with non user group from Jijiga reflect their discontent as

> '*Why should we (the Jijiga FUCOP) always blame for illegal forest extraction and encroachment for agricultural purpose and in-forest grazing that we were not use this forest for any other purpose. Even other FUCOP who can sell their forest product NTFP to the market themselves are illegally cutting and selling it to the market. This forest was used by our fathers and after the introduction of participatory forest management we were denied the use right over this natural resource without any reason'*

In Gaji user groups the issue of conflict was also serious and more problematic. The less consideration given to non members exacerbate the existing improper management situation found in the forest protecting committee and members. The focus group discussion made with individuals at Gaji explained that, the young non members who create problems of illegal tree

[13] Mr. Hailemikael Hora was one of the member of FPC in Jijiga.His specific authority is controlling committee who control and report the day to day activities of the members in protecting the forest. Interviewed at field in February 15/2014

cutting were given less consideration. They remember that an individual who was the FUCOP member and went to guard the forest and lost his teeth by these illegal tree smugglers. The FGD made with non members stated on this issue that when they ask about the right of membership they are not well-come by the committee. Study conducted in Zimbabwe also showed that conflicts mostly arise from need for benefits, influence, recognition and legitimacy (Kozanayi, 2005).They have bitterly stated that FPC was recepted the new members if they were only their relatives or in other form of relationship. This creates the young and nonmembers to revenge through different forms of resistance which will be discussed latter.

Forms of Conflicts and conflicts managing in participatory forest management.

The key interviewed expert explained that PFM at Chilimo-Gaji forest has helped to solve at least some of the previous conflicts, at the time when forest is governed by the state rather than community. This conflict has mainly been occurred between the hired government guards and illegal loggers, between guards and the surrounding community when collecting fuel wood and fodder, and between local residents and more recent settlers. But after the implementation of PFM according to his view, conflicts among local community has been reduced and the hiring of forest guard was replaced by community based forest protection guarding. The communities around the forest who are the member of FUCOP are responsible for guarding and developing the forest (community bylaw 1998).

Even though there have been no serious conflicts amongst members of the cooperative, conflicts between members and non-members who illegally use forest for different purpose is recurrent. But some aspects like power relationship among grassroots actors require special attention to avoid future conflicts and to increase the chance of success of PFM. The Forest Management Agreement signed in 2004 between the Chilimo-Gaji FUCOP and the District office of Agriculture and Rural Development that transferred the user right to the FUCOP based on specified conditions of management. The internal by-law of the Chilimo Cooperative is based on the Federal Government Cooperative Proclamation (No.147/1998) and various customary rules. There are gaps in the coherence and compatibility of regulations at different levels. At Federal level, for example, forest utilization proclamations No.542/2007 governing natural forests and those for establishing and legally recognizing cooperatives are not complimentary. The forest utilization proclamations puts emphasis on the need for the

conservation of natural forests through an agreed upon management plan while the cooperative promotion office encourages cooperative members to use their resources so as to maximize incomes.

At the woreda level, the forestry enterprise office, responsible for defining and checking on the management of the forest, and the Cooperative Promotion office, mandated to assist the establishment and legalization of cooperatives, are operating based on these two proclamations. This results in lack of consistency and a common vision as to how the forest resources could be managed in collaboration. As the key expert of cooperative promotion office responded that there is no clear directives given on how to manage and develop forest from forestry enterprise except the community bylaw developed based on the concept of cooperative proclamation'. Study has been conducted in Philippines has shown that lack of collaboration and management overlaps affect the program of decentralized protected areas (Mirasol, 2005). Nevertheless, FUCOPs level by-laws were better implemented and observed than higher level laws and were more effective in minimizing the former *de facto* open access to the forest resource. Some villagers are unhappy with the restrictions that the cooperative has imposed. People need to participate in rule-making processes, and this facilitates enforcement of rules on the ground. Besides involving everyone affected in the decision making process and clarifying the rules and regulations, opening up means of discussing potential sources of conflicts and adopting inexpensive mechanisms to resolve conflicts, even minor ones, are essential for PFM to succeed (Ramirez, 1999).

The major conflict raised in the study areas were with non users from other villages and from the nearby surrounding. In Jijiga, the major conflict raised was with the neighboring '*village*'. The cause of the conflict with this group was that the residents needed to use the forest in restricted use by denying the use right of these group (non members). This is due to the exclusion made against the non members during the boundary demarcation of PFM initiatives stage but the neighboring '*village'*(non members) needed to use the forest as free access because of their former traditional use right. According to focus group discussion response with the members, they stated that those non members who commit illegal act against the community bylaw were taken to the police station even though there are continuous forms of such act. As a result the former forest covered lands remain with the present individual's and nonmembers' agricultural farm land.

In Chilimo FUCOP rules are expressed for the members in the form of regular meetings and group discussions among the members. But for non members and illegal tree smugglers and agricultural land encroachers the forest use rules are explained in three forms: firstly local elders are trying to mediate them with the members, secondly FPC and the village chair person by having legal discussion with the non members and warn them that they are acting against the rules. Lastly if they are continuing in committing such crime, their issue is solved through court with very tedious witness related issue and bureaucracy at police station.

Users' Empowerment and participation in participatory forest management process.

Empowerment and representation of forest adjacent communities is an important factor to sustainable forest management (Borni-Fayerabend 2000). In PFM process, the practices have three main stages: the investigation, negotiation and the implementation stage .The investigation and negotiation stage are essentially the planning and designing stage. The general purpose is first to identify the prevailing *de facto* use system for a particular area of forest and various interest groups, which usually relates with different uses. There was then a process of negotiations between interest group to address their needs and resolve use conflict. The capacity of forest to meet the various needs also need to be assessed and resolutions of the need of people and capacity of the forest forms the bases for the management plan. One of the key[14] informants at Jijiga explained on their participation on the two stages that concerned groups were not participated but only the elite group and those who have power were participated in forest investigation and negotiation stage. But in Gaji and Chilimo there was no problem on the participating of community in the above mentioned two stages.

After the successful implementation of the above two stages the community and forestry stuff work together to delineate forest areas, develop forest management plan and forest management agreement (including right and responsibilities of communities and government) and securing legal signature for these agreements. The implementation stage signal official start up of the implementation stage with full government support. Monitoring and evaluation are also part of this stage. PFM is used to describe systems in which communities and government institutions providing technical services in the forest sector work together by defining the rights

[14] Yihunie Tesfaye was the currently elected member of FPC in Jijiga whose age was 44 and served as the kebele peace keepers (Militia). Interviewed on December 20/2013

of forest resource use, identify and develop forest management responsibilities, and agree on how forest benefits will be shared between forest users the community and the government partner (Zelalem and Mulugeta 2012).

Therefore, PFM is considered as one of the viable options in forest resource management with active involvement of the user communities at all stages. But the issue of limited participation over the initial phase of PFM according to respondents resulted in exclusion of some distant households who had either direct or indirect claim on the use of the forest.

According to interview made with the key informant experts and officials of the woreda, proximity to the forest resource, livelihood dependency on forest and willingness to participate were some of the eligibility criteria used for membership. However, focus group discussion with non user group (non members) within the boundary of forest user group explained that they have strong objection to the criteria of current participatory approach to forest management plan. But the study conducted at Goba and Dalo district of Bale zone shows that the distances of the community form the forest resource have no impact on participation (Alemtsehay, 2010). They have a view that the forest is naturally created so that their use right should be equally respected. Particularly, they bitterly expressed their right was reject out of access to any form of forest product. They expressed the following:

> *'the government should give consideration about us because we have no land to till and sustain our life and our family; this forest become the 'breast' for the 'wealthier' group who have maximum land for agriculture and additionally monopolize the forest resource and only thing they want was to get additional benefit'*.

In this respect, the provision of user right to certain selected households appeared to exclude other without considering their forest product using interest. When rules are imposed by the outsiders without consulting those who are affected by the plan, local people is likely to become robbers towards the resource (Gibson et al., 2000).

The participation of women in forest management process in the study area was seemed to be low. All the data collected in the Chilimo-Gaji PFM shows that the roles of 'women' and 'men' differ across FUCOP. Women and men play different roles in terms of division of labour at the household and community level and as well as forest protecting, tending and using forest resources. Based on focus group discussion at Chilimo-Gaji it is indicated that women

participation is only restricted to few aspects of forest development activities mainly engaged at nursery establishment which primarily focus on tree seedling preparation. Women key informant at Gaji FUCOP also stress that two major factors limit the participation of women in forest management works: firstly, the forest management tasks which require more physical activities to move long distance through forest for the purpose of overseeing, assessing monitoring secondly, and additional house work load that consume their time in order to fully exercise their roles. Hence, the work of women mainly confined to watering and seedling at nursery site.

The representation of women in forest protection committee, however, is found to be negligible. Their representation among FUCOP of the study sites are only one women member is represented at Gaji, three women at Chilimo and no women representation at Jijiga. According to study conducted by (Tedese and Abay,2013) the major constraints for active participation were multiple burdens such as childcare, fetching water, cooking food, travel long distance market and farming. In addition to this the terrain structure; ups and downs, rivers and remoteness of forest extension from the home and the security issues makes them to decided not to let females group to guard forest

Decision making power and leadership competence of users

Forest users need to have considerable power on the level of decision making on access to common resource and action like what to plant, protect, monitor or sanction (Mckean, 2000). This cumulatively affects outcomes in forest conditions, distribution, and distribution of forest cost and benefit. The issue discussed with forest user group was the decision making power and the democratic leadership of forest protecting committee in successful functioning of the forest protection and management. Most of the problems raised by the Gaji FUCOP were the issue of favoritism, mismanaging of money and making the confiscated firewood and charcoal from illegal group for personal benefit**.** Informant repeatedly mentioned that discussion and meeting are not passed through consultative participatory process. But the committees are calling only their relatives and people who have 'benefit based relation' with them. But focus group discussion with the Chilimo FUCOP shows that meetings are passed with agreement and according to the rule of bylaw. At meeting issues raised regarding forest protection, development and harvesting and decisions are passed on voting. Despite this focus group

agreed that there is poor local government administration and limited support for these committees.

Forest protection committee chairperson from Gaji FUG reported that there is particular hostility among some of the officials of the woreda administration that most decisions from the committee are not honored by the woreda forestry officials and sometimes the latter give order against the decision of the committee further undermining its authority. Some also have still a reservation about the possibility of community's handling forest. Some informants also explained that committee members often lose their enthusiasm in implementation of PFM owing to limited support from the local government institutions at times coming to a virtual stopping of all activities.

Interview made with woreda agricultural and rural development office experts revealed that at the early stage of PFM there was a lot of enthusiasm government support and community participation but little by little there seemed a declining support from government institutions despite communities' commitment and dedication sustained the PFM activities.

CHAPTER SIX: THE POLITICAL ECOLOGY OF PARTICIPATORY FOREST MANAGEMENT IN CHILIMO-GAJI

6.1. Rules, regulations and access right to forest resources

6.1.1 .Forest Monitoring and Sanctions.

In Chilimo-Gaji PFM, monitoring procedure was done by the general assembly. Even though monitoring and sanction existed in the entire group, some of its applications are different among all FUCOP. There was no hired forest protecting guard in Chilimo-Gaji PFM. The community guards the forest turn by turn. The leader will tell the users whose turn it is. As the respondents explain there was no need of hired guards because the forest near to the residence of the community so it is easy to protect the forest from illegal cutters and the benefit from forest product is mainly based on the participation of the group in forest protecting and developing .

The one of the main purpose of the forest guarding by the community turn by turn was to keep the forest from grazing of any animal in the forest and to protect illegal tree cutters. But the members always complained that forest block was large to control. In Chilimo one of the key informants[15] of the group stated that

> '*This forest block is very large for our members to fully control and guard the forest. We are forced to protect the forest twice per week; which consume our productive time especially during harvesting and sawing'*.

The participation of women in protection and guarding of forest in the selected study area is very low. In the focus group discussion, the group responded that due to large area of the forest block especially for Gaji and Chilimo, it is not easy for females to cross the whole ups and downs of the steepest forest gradient.

In Gaji if the assigned person did not guard the forest, he/she would be fined 10-15 birr. These fines in principle should go to increase the member's budget to reduce their recurrent budget constraints. The sanctions were different for all the community forests and the penalty given for accused individual was different based on the tree he/she cut. In Chilimo FUCOP, the illegal cutters will be punished 100 birr if he/she cut '*waira*' for the use of locally known as

[15] Mr. Gammachu Soboka, whose age is 52 and one of the members of FPC and the leader of natural resource development committee in Chilimo FUCOP, was interviewed on January 17/2014

'*Qorasumaa*' for first time and 200 Birr for repeated action. If the person could not learn from his/her previous faults and cut trees repeatedly, he will be sent to local courts. There is also evidence in literature that penalties should be mild for first offenses and severe only for repeated infractions (Ostrom, 1990). The sanctions are not permanent. They can be changed any time according the situation. Similarly, in Chilimo FUCOP interview made with one of forest protecting committee stated that in the future they will change the amount of money that the illegal cutters should be punished because of their repeated action on high value legally protected tree such as *Junipers procera, Podocarpus falcatus, Olea europaea subspecies, Hagenia abyssinica*. According to the FDRE Forest Proclamation No. 542/2007 income generation from natural forest is prohibited. In addition to this law, Oromia regional state forest proclamation no 72/2003 stated that any person who committed the act of damaging legally protected trees such as *Junipers procera, Podocarpus falcatus, Olea europaea subspecies , Hagenia abyssinic* shall be penalized with five to fifteen years of arrest.

6.1.2. Access rights to the resource

After community based forest management has been practiced in Chilimo-Gaji forest, the illegally forest access by adjacent and distant communities has changed. Until 1996 the forest was used for different purpose in different system throughout the Hailesilasie and Derg regimes. In the Hailesilasie régime the forest was controlled by the local land lords and its access is only with the good will of them. At the time the local community who were tenant of the land owned by emperor land lord was allowed to collect fuel wood and other forest product, but they have to have permission and pay fee. In the Derg regime, forest were divided for the purpose of control and management in to state forest, under the control of state, and community forest which come under the control of peasant association Tedese and Alemtsehay (2012).

As interview made with one of the members of forest protecting committee, he explained that following the overthrow of the Derg regime, access to forest resource was in the form of open access. According to him anybody can fell tree as much as he/she can and use it for different purpose in different forms. In Jijiga focus group discussion one of the group members remembered the following

'By that time (during the down fall of the Derg regime) we totally eradicated this forest without any immediate need. It was only for the competition among the forest cutters, very small late growing saplings were destroyed without any benefit'.

The key interviewed expert forest enterprise explained that since Imperer Haillesielasse I, communities have used to practice unrestricted grazing locally called '*Daraba*'. It was one of the oldest traditional types of in-forest grazing without any form of restriction to the formation of PFM in the study area. But after the coming in to practicing of community based forest management, this system was changed in to controlled grazing system where the members are participating in protecting and harvesting the grasses for sale as an income for the members. Among the members, who have animals and very closest to the forest adjacent have the priority to get restricted grazing in the forest. These groups, who have got the chance to graze their animals in forest, should use the grass in the form of hay or very carefully protect his/her animals not to graze trees shoot and saplings. Some began cut-and-carry system and gather grasses from the forest, mainly during dry season. A similar study conducted in Adaba-Dodolla and Bonga PFM, reported that after implementation of PFM there is significant change in utilization of forest grasses (Bekele *et al*., 2007; Tsegaye at al., 2009). The FUCOP members, who use the grass of the forest for their animals, do not get equal share with others members because the local market value of the grass is calculated and deducted from the net value of tree selling that should be divided for them. Interview made with one of the FPC in Gaji the advantage this type of arrangement was that those forests adjacent communities are carefully watching the grass form animals and illicit grass cutters. It is also very important to let the new saplings to grow safely.

According to the agreement in the Chilimo-Gaji PFM community bylaw, it is illegal to graze animals in side of the forest except those who have permission to do so and specified areas to be grazed. The one who violates this rule and intrude their cattle in to the restricted boundary was penalized in cash. In Chilimo, for in-forest illegal grazing, the fines for Oxen or cattle was five Birr per animals, if cowboy was found with them, it would be ten Birr per animals and if it was at night 50 Birr per animals. This few penalties were for the members only. But for the non members the penalty was twenty birr per animals and increased with repeated mistakes. According to the view of focus group discussion with non members, they

complain that this recurrent penalty become beyond their paying power. One of the members of focus group discussion stated the following

> '*We are poor and always busy to sustain our family's life and we were not always stayed at home. Our animals accidentally enter in to the forest boundary. We are always punished for the entrance of our animals to the forest so if this punishment continued we are going to sell our animals in order to pay the needed fines'*

According to the view of key expert of forest enterprise at woreda level the rapid increment of animals in the study area may be the future cause of conflict in forest management. Similar studies conducted in Adaba Dodolla PFM project site indicated that due to increment of number of cattle, the need for further grass may resulted in conflicts (Bekele *et al*. 2007). In case of Gaji FUCOP the amount of money needed from those who illegally graze their cattle in forest was different. The fine was 3-5 Birr for any domestic animal. That was whether the fault was repeatedly done or not, the punishment was only three birr per animals. These types of sanctions have increased the under growing shrubs in the study area. Similar study conducted at Southern Tigrai also confirmed that community graduated sanction has developed the status of tree species (Tirhas, 2009).These types of fines collection methods are never practiced in Jijiga because the easily accessible areas of the forest are already changed in to agricultural lands. Some groups have started the use of grass in the form of hay rather than in forest grazing. According to the response of key informant interview of FPC in study area, even though in forest grazing generate income for their group, it created major problems on the regenerated trees and under story shrubs.

According to the community forest management bylaw of 1998, forest adjacent community who are very poor, whose livelihood condition was totally depend on NTFP and who leave **'**their**'** land for the purpose of making buffer zone of the forest have full right to sell fire wood and charcoal. Having this right this group of people over exploited the high value tree such as *waira* for the purpose of '*Qorasumaa*', *kosso* and *Gra*r for charcoal making. In addition, these communities who have the right to gather NTFP form the forest can transport unknown number of fire wood packs to the town. As interview made with one of Chilimo members clear explained that about six pack of fire wood was sent to the market per household

Figure 6: Forms of non timber forest product supply to the users

This creates other members to involve in the selling of NTFP in the form of charcoal and fire wood without having legal right. On this issue key informant FPC at Chilimo FUCOP explained the following

> '*Except those who have legal right to collect and sell fire wood to the market, all of the community who transport fire wood to the town (Ginchi) are illegal and our bylaw do not recognize them'*.

As it was explained by one of the informant members those people who committed illegal use of NTFP are the relatives of the forest protecting committee. Some of them are their wife; others are their child and extended families. Due to this reason the forest protecting committees are unable to speak to those people. This creates tensions between adjacent communities who practice illegal selling and the committee members who have no families and extended families that depend on NTFP in the community. Similar study conducted in Kenya shows that process of confiscation happens frequently and it causes tensions between officials and forest adjacent communities (Chiristopher, 2013*)* As a result of this most fire wood and charcoal are confiscated on the camp and sold to other user group such as to hotel and cafes. But this confiscation is practically done only by some groups of the committee members because of the issue of families and extended families that degraded the commitment of committee to exercise their responsibilities.

The access to forest related benefit sharing was another form of participation in forest utilization in which the portion of the value of harvested timber (70%) confiscated and soled fire wood and charcoal was divided among the members. In the forest protection agreement bylaw of the study area, benefit sharing was depends on the rate of participation in forest development, protection and utilization. Accordingly some members who graze their animals in permitted area of the forest are not entitled to get equal share with other group members who have no such chance. The key informant of forest protecting committee in Chilimo and Jijiga clearly explain that benefit sharing was also related that the commitment individuals have in forest guarding. If any members of the group do not keeps his turn during forest controlling time, the time he/she do not respect their turn is calculated and changed in to money and then this money was deducted from their benefit sharing. This system was the most important system which initiates the members to fully commit in participation of forest management. Among forest protecting committees, the executive committee have special right in gaining the share that is out of 70%, even though it is different among FUCOPs, one percent was directly divided for these committee and the remained percent was divided for the whole members including the executive committees. This case creates tension and disagreement among ordinary FUCOP, non executive committee and the executive committees.

As it was clearly explained in the previous section, the issue of access to forest was different with the regulation of the past regimes. After the coming in to being of community

based forest management (PFM) in the study area, the power to manage forest is decentralized. Accordingly, community members were used to get the permission of access to wood serves for house construction and fences from forest protecting committee. In focus group discussions conducted on the study area respondents are explained that they used to buy timber related forest product from FPC with the standard of market value. However, this regulation let them to find other option rather than wasting time to get permission of tree from forest enterprise. So, these all issue creates sense of insecurities of resource management and creates other forms of adaptation to it.

6.2. Actors interactions and participatory forest management in Chilimo-Gaji

6.2.1. Dynamics of actors' Interactions in achieving participatory forest management

The key forest managing actors ranging from intervention proponents (Ministry of Forestry and environment and Oromia Forest and wildlife enterprise) to the lower base of FPC adopted their own strategies within their capacities, to resolve their particular problems or to realize their goals. These strategies are played out in their interactions with each other and with the institutional ground in which they operate.

The woreda cooperative promotion office are required to act as facilitator, ensuring better community participation, according to the state government directives and the community forest management bylaw. This was also true for Dendi branch of Oromia forest enterprise. In practice, the interaction of above mentioned institutions was very week that resulted in ineffective management of the forest and related forest product. The cooperative promotion office was responsible for the arrangement and organizing of the FUCOP members in Chilimo-Gaji PFM. Fines collected in the form of penalty, from confiscated NTFP and from '*forced*' saving should be incorporated in to development process. But due lose control and management by this office, the collected money is embezzled by the actors at community level. According to focus group discussion in the study area, cooperative promotion office has even forgotten about the issue of financial management in context of FUCOP.

Oromia forest enterprise of Dendi woreda branch was also responsible for identifying and selling artificially planted trees for the market. Their approval was needed before logging the plantation to sell. It is also the responsibilities of forest enterprise to detect and identify the effectiveness of FPC. But it was the responsibilities of cooperative promotion office to take

corrective actions on those who did not carefully devolve their duties. If the identification of the work of FPC was loosely done, the overall forest management become in danger. District government officials have used this as a means to create a patronage network with wealthy nonmembers and community leaders to deprive the local people of power and benefits. Using this network and the power they derived from the forest proclamation, district government officials and community leaders sold plantation timber to wealthy nonmembers at a price much lower than the market price. Similar study conducted in Chilimo and Arbuko-Sokoke in Kenya shows officials and community forest management actors have informal connection with wealthy non members (chiristopher, 2013; Habtemariam et al., 2009). Here it was District government officials who have power to say something on how, when and for whom to sell the matured logs. Out of the total value of the logs 30% of income goes to Oromia forest enterprise. But cooperative promotion office is to manage the left 70% rather than using it for forest management facilitations.

However, the relation/interaction of these organizations to achieve the intended goal of community based forest management appeared to be poor. Interview made with cooperative expert show that the forest enterprise is also responsible to train the forest users on different forest management issues because it allocated budget from their 30% share. According to the view of this expert rather than managing their money they cannot get income from the FUCOPs. Similar study conducted in Indonesia and Philippines also revealed that proper mechanism and distribution of revenue from the natural resources sector needs to be developed in a more transparent manner and the management responsibilities overlaps become constraining factor for decentralized forest management (Wardojo, 2005; Mirasol, 2005). But interview made with one of the members of FPC shows those auditors sent from the cooperative promotion office ask an exaggerated perdiem. As they expressed that for a single day auditing, they request 300 birr per person. Assuming that those FUCOPs groups have much 'pool' of money, they purposely extend the date of auditing process. As key expert of cooperative promotion explain on this issue there was no clear directives on how to pay per diem for the cooperative promotion auditors. He also stated that the auditing committee sometimes performs their work without payment. But according to his view based on the financial capacity of the organization, it was up to them to decide with the institute which they are auditing. This 'coercive decision' making on the amount of per diem for auditor made

competition among auditing committee to have opportunity of ‘swimming the pool’. It was argued that the communities with healthy common forests were those that recycled their income collected into development (McKean, 1992; Ostrom, 1990)

The interactions between FPC officials among themselves and other ordinary forest user community are characterized by a lack of ‘trust’ and ‘lack of respect’ on their parts. Forest managing committees are in principle responsible for safeguarding the safety of forest and utilizing it in a sustainable manner. To achieve this principle these committees are divided in to different groups for the sake of facilitating forest management process follow up.

Accordingly, committees have their own and roles responsibilities. Hence, the powers and duties of the executive committee according to the community bylaw may include; chair meetings of the executive committee and general assembly meetings in accordance with the agreement of the day of meeting and emergency meeting, maintain the minutes of a meeting in writing; maintain the documents and books of accounts of the cooperative; Prepare the annual work programme, budget and implements the same upon approval; and other duties assigned by the general assembly. As clearly seen above executive committees are higher authorities in managing forest development and utilization issues. The committee also represent the cooperative (FUCOPs) concerning objectives and activities of the cooperative; ensure bylaws of the cooperative are implemented; approve all expenses and sign on checks and agreements. Controlling committee also have the power and roles of control that the resources of the cooperative are properly used for the achieving the objectives of the cooperative and forest management, control that the executive committee and other committees are properly undertaking their responsibilities according to the bylaws and directive of the cooperative; report to the general assembly on the performance of the cooperative. The natural resources development committees, livelihood development committee and others are responsible for coordinate and engage in planning of forest development activities, mobilize members for the proper implementation of natural development plans; facilitate training on natural resource management activities (community bylaw 1998).

Having the above mentioned roles and responsibilities as pretext, the relationship among these committees for their personnel advantage and its impact on the resource of the FUCOPs and forest on which they were base to organize was immense. The managing /executive

committees on their part are responsible to protect the forest against illegal tree smugglers. It has been clearly explained by the informant interviews at all study area that these managing committees are not free of embezzlements of the FUCOPs property. The focus group discussions held at all study area also confirm that most fines and penalties collected from the individuals who commit crime on the forest resource are done without official receipt. The confiscated timber product from natural forest, fire wood and charcoal are also sold to any body without competition among buyers. These officials have used their power as a means to create patronage network with wealthy nonmembers to sell these caught wood product on the controlling center. Transparency among these managing committees in the study area is appeared to be low. Similar study conducted in Cameroon also shows lack of transparency and embezzlement forest related income leaves the door open for mismanagements and for conflicts at the local level (Cerutti, P.O. et al., 2010)

According to the agreement in the community forest management bylaw one parts of the member's income is from the above mentioned fines. But the discussion participants are bitterly expressed their dissatisfaction on the fines goes to individual's pocket. The interview made with one of the members of forest managing committee at Gaji FUCOP also shows that there is no trust and agreement among themselves. The interviewer stated that some members are not serious in handling and controlling of non timber forest product drained from the forest. In his view these carelessness is emanated due to the participation of their relatives and families as well as extended families in this illegal act. Most of these committees' life is directly or indirectly depends on the illegally transported output of NTFP. Hence, they facilitate for themselves the access to illegal tree cutting in the form of giving permission for the forest guard on his turn. The other forms illegally accessing trees from the forest by these committee and their relatives according to this informant is hiding the tree cutters and warning the witness not to give testimonies.

The key informant interview made with one of FPC members at Chilimo FUCOP also remembered that when individuals have relative from executive committee and committed illegal act on the forest and accused but due to the fear of the committee, no one was going to give their testimony on their illegal act. Competitions among all FPCs to give 'permission' for forest guarding individuals during their turn also exacerbate the deforestation rate of forest. Study conducted in Kenya national forest reserve show that while forest guards abstain from

patrolling the forest area with permission the villagers are harvesting the timber to satisfy their needs (Chirstopher, 2013). This time, while there is no forest guard, any informed community members, family, relatives and extended relatives of the committee which gave permission and non members groups have the chance to illegally access to the forest product. With the use of communication device even remote distant dwellers have also the chance to satisfy their need.

Informally interviewed fire wood and charcoal pack transporter women at Gaji has said the following,

> '*Today was his turn; I heard that he (forest guard) took permission from the committee. It was not only me that heard his absence but also the whole members who transport packs of fire wood on their back and donkey to the town*'.

It is during this ‘peak’ time that urban dwellers satisfy their need for fire wood because the price of fire wood and charcoal also decreases due to maximum supply of these NTFP.

Figure 7: The fire wood market from Chilimo-gaji forest

6.3. Local people’s responses to strong state actors

6.3.1. Adaptation

Local grass root actors have long responded to the marginalization against some community members who are adjacent to the forest and excluded former members of FUCOP. Some FPCs members tried to compensate the embezzlement made on their resource such as benefit sharing

problem, access to NTFP and inequalities among FPC to exercise the perceived roles in different forms. According to interview made with Gaji FPC chairperson[16] strategy of adaptation has been used frequently by these actors since the establishment of community based forest management. Non members community dwelling adjacent to forest have adapted to their marginality in different forms. Many grassroots actors adapt strategies that aim to minimize any adverse effects on them while at the same time avoiding confrontation with powerful actors. Similar study at rural of south Asia confirmed that poor grassroots actors were adapted to enclosure and environmental degradation by extending the time spent pursuing the livelihoods needs (Bryant & Bailey, 1997). For example, according to discussion made with non members at the study area, some of them were forming informal network with forest executive committees, some of them were working as a laborer for these committees and later get the permission of being membership.

Other form of adaptation was relative relationship. In the study area most committees are from their own clan, families and extended families. Using this as an opportunity to get access to membership, most of the non members are/were dealing with this group of communities. On this idea one of the members of Gaji FUCOP who participated in focus group discussion asserted the following.

> '*Now most of our members are aged; it was very important to accept the newly emerging young members who can even run ups and down of this landscape to catch the one who illegally cut the tree at night or day time'*.

Non members tried whatever they can in order to get membership. The community forest management bylaw of the study area stated that any person who wants to be a member when approved he/she shall pay a registration fee and utilization fee. Since the establishment of FUCOPs in 2004 members were accumulating money in the form of utilization fee and saving per month. Dividend share for the members is based on the '*coercive saving'* that they accumulate in the bank as well as the rate of their participation in forest management activities. Therefore, according to the explanation of the FPC in study area the newly accepted members

[16] Mr. Zegaye Abera was the former *kebele (Youbdo lagabatu*) chairperson. But currently he was serving as chairperson of the Gaji FUCOP FPC. Interviewed on February 15/2014

should pay the registration fee, utilization fee and '*mandatory saving'* which were calculated from the year of establishment of FUCOP.

In focus group discussion made with non members at Gaji FUCOP the participants explained as

> '*The money needed from us to be the member of forest user was beyond our paying capacity; in addition to this what we pay for 'them' and the return is not mach each other because the managing committee were full of corruption. Hence, we prefer another option rather than paying the needed money'*.

As it was already discussed non members are denied of using any form of timber and NTFP from the boundary of forest. But most members in focus group discussion explain that these groups of the communities are renting their donkeys for the poor who totally depend on NTFP to sustain their life to transport maximum pack of fire wood or charcoal to the market. In their agreement out of three packs of donkeys one pack's value goes to the non member who rent his donkey.

Members of FUCOPs also made an adaptive response to the community bylaws which gave exclusive right for the poor who totally depend on forest and NTFP to sustain their life. In this case they also rent their donkey to these poor groups of fire wood seller to maximize their profit. One of the members in focus group discussion stated that the executive committees were getting additional revenue from different sources such as from benefit sharing, penalties, confiscated fire wood and charcoal etc. It seems that due to the violation of community forest management bylaw and poor controlling of each other by the committee this problem was created. According to the focus group discussion held in Chilimo and Gaji FUCOP members, most of the forest user members are eager to be the members of executive committee. As clearly stated above, these committee are the forest managing committees that have right to decide on important forest product related issues. One of the discussion members stated that this forest is the '*caw*' of the committees. Hence, the would be new members of the committee were wish to get access to forest product and money related to forest output. If this was not possible members were tried to vote their relatives or their neighbor so as to get access to forest illegally.

Members of the same group and community around forest adjacent including non members are also using the poor legal support given to FPC as pretext they always perform illegal tree smuggling. In addition to this key informant of FPC at all study site explained that illegal groups (members and non members) are making relationship with the woreda concerned officials to reduce or not touched for their fault against the community forest managing bylaw. Key informant expert the woreda cooperate office express his idea on this issue that such type of actor network and competition further degraded the forest than conserving. In marked contrast to these diverse forms of adaptation, many grassroots actors have sought to resist the work of relatively more powerful actors.

6.3.2. Resistance

Actors' everyday interactions, negotiations and social relations happen more in the informal spaces and networks defining their access to and control over resources to be regulated through formal institutions (Cleaver, 2007). Through participation in collective resource management, it was claimed that people can re-negotiate norms, challenge inequalities, claim their rights and extend their access (Cleaver, 2007). Patterns of resistance do occur and are notably associated with the illegal exploitation of environmental resource by the poor and other grassroots actors.

In the study area as it clearly stated in the previous section in forest grazing was allowed only for identified group. Hence, according to ideas of group discussants in the study area, most members of the community need to have access to in-forest grass grazing. The community forest management bylaw gave special right to individuals who have no land to till and benefit sharing related ideas to use the forest grasses. But understanding the right given to this group has some fake, communities were always commenting to revise their forest management bylaw. Accordingly, focus group discussion held at all study sites, the issue of access to forest grass was always raised on meeting but consideration given to it by the committee was poor. However, forest protecting committee of the study area complain that in-forest grass which generate income for their group was illegally cut and taken to individuals house at night time. They also expressed that heaps of grass cut by the concerned groups and collected together until dried was stolen by the some community. Focus discussion held with non members also stated that in fear of penalty given to them and their exclusion use right, they sometimes choose to conduct illegal utilization of the resources (grasses). Illegal encroaching to forest land was

another type of resistance against the exclusion of same community members of the study area. Similar study conducted at Thana districts of India also showed the same result (Saldanha, 2007).

In Jijiga study site community members who were not included in to the FUCOP group were always created the problem of violating the buffer zone of forest and intruding the forest section. One of the focus group participants from non members stated the following,

> '*We do not know the reason why we were excluded from the users group but we used to graze our animals in this forest since now and it was our right to plow the land 'belongs' to us.*'

Key informant FPC clearly explained that the problem of Jijiga forest degradation was due to marginalization of forest adjacent community during investigation stage of forest management plan. In addition according to the cooperatives directives send to FUCOPs groups increasing or adding the number of members will result in further degradation of the existed forest. Owing to this and week local government support to the grassroots actors, forest protecting committee were frequently resigned. Informant key expert from the woreda cooperative office explained that even though the maximum time for the committee was three years, this frequent change of forest managing committee open the space for illegal encroacher and tree smugglers. Interview made with the former FPC in Jijiga shows that he resigned himself from his position due to the management complexity found in that user group and benefit gained from forest related income was relatively not motivating. Study conducted in Namibia also show that successful community based forest management was based on the value forest give for the participants (Jones, 1999)

Illicit harvesting chain and informal networking with some community around the forest to hide the illegally transported timber from somewhere in the forest was also unsolved problem in the study area. The member group themselves made illegal network with non members and vice versa. According to Forest Proclamation No.542/2007 and the agreement between the local people and the government, income generation from natural forest is prohibited. But the informal network among some group of the community violate the above mentioned proclamation and community bylaw in the form of transporting natural forest timber to the urban users. Group discussion with non members in Chilimo stated that it was very easy to

transport circular curved wood or plank and deformed natural trees in to plank for house construction to the immediate users. Non members can cut trees at night and transport it for some distance to the direction of users and hide it in the house of forest user's members where informal network was already created. According to discussion with members of the FUCOPs this informal network for transporting natural tree at night was sometimes appeared with the forest protecting committees themselves. When discussing topics about forest guarding with FPC working in Jijiga as managing committee, they expressed grievances of budgetary constraints that increase their inability to effectively perform their jobs. For instance, on the northern and eastern sides of the forest was not effectively monitored and they do not take it as part of their forest to be conserved. This problem was also observed in Kenya forest reserve conservation (Christopher, 2013)

One of the responsibilities of forest user community members according to their bylaw is to guard forest day and night from illegal tree smugglers. As observational evidence shows that high value trees are totally destroyed form Jijiga and relatively taller trees are reduced from Gaji forest block but better in Chilimo. If clearly observed the latter forest block is left with only larger tree seen at inaccessible slope of the mountain with under growing trees, bushes and mostly *Carisa edulis* trees. Interview made with woreda key expert sated that since the establishment of participatory forest management, even though artificially planted plantation was increasing, the quality and quantity of the natural forest is reduced. The prime protection of forest is vested in the community adjacent to the forest. The groups are guarding the forest turn by turn. But some members who are relatives of FPC are not '*forced*' to keep their turn. Hence, some of the members were purposely reluctant to keep their turn to guard the forest and reject the meeting day or forming informal groups and discuss on unrelated issues. Members were always informally organizing themselves and vote against the existing FPC to replace them with their relatives so as to get access to illegal tree smuggling and false compliance on the work of the committee. This form of resistance has been observed by (Scott, 1985). It has been recognized by the woreda cooperative office and attempt to adjust some committee members and tried a lot to discuss with non members who create tension among the community. In addition to this Chilimo and Gaji FUCOPs due to their relatively largeness of their forest block, the forest guards were forced to confront with illegal tree cutters come from remote distance and non members community around the forest.

As it has become clear in the focus group discussion these illegal tree smugglers are always challenging the works of forest guard. As it was explained that they were organized and intruded in to the forest and physically attack those guards. One of the group members remembered that in Gaji FUCOP an individual who guard forest during his turn has lost his teeth by those illegal tree smugglers. Now the tension created by those non members group made some of the forest user pessimist about the continuity of the plan because members were attacked by these groups. This covert form of resistance was also confirmed with the study of (Saldanha, 2007). In Gaji as discussion made with non members shows that their illegal tree usage will continue until their use right respected. This was also true in Gaji, Chilimo and Jijiga where non members were attacked FPCs in the field while they were monitoring forest. Key informant at Chilimo FUCOPs stated the following,

> '*Physical attack by illegal group on the community who protect the forest was common. Accusing the attackers was impossible because of lack of eye witness as they did this at hidden areas. This attack and forest clearance linked to illegal cultivation and gathering timber related forest product will continue until the issue of non members is resolved'*

In fear of unexpected attack against them, user members were refraining from controlling the whole forest block and hide themselves in the remote forest to register their name as if they were effectively controlling the forest. The continues flow of timber product and NTFP such as fire wood and charcoal to the nearby urban area identified by observation implies the reduction of forest guarding and controlling in the study area.

CHAPTER SEVEN: SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1. Summary

This research was conducted in Oromia National Regional State West Showa Zone Dendi Woreda. Specifically in Chilimo-Gaji National Priority forest where currently PFM is practiced. The purpose of the study was to assess practices and challenges to participatory forest management in the study area. To answer the above mentioned issue respondents were identified for the purpose of the study. The subjects of the study were community in the study area purposely selected for focus group discussion and interview; key experts from the woreda were also purposely selected for interview.

In the face of unprecedented encroachment of the forest for agricultural expansion (due to increased human and livestock population) and the resultant land degradation from the exploitative resource (forest) use, the area designated as Priority Forest Area has declined from 22,000 ha in 1982 to only 4965 ha today. The community forest management was aimed at participatory and designed to provide participation and control for the communities participating in forest protection. In the study area PFM is practiced through participation of community around the forest. This management was put in to practice through organized group named as forest user group (FUG). But due to lack of legal base, the forest management system through FUG was changed into forest users cooperative (FUCOP) so as to have legal bases.

Findings of this research show that problems encountered to effectively implement PFM all were different in its cause and intensity. Hence, the issue of forest boundary related conflicts was found as one of the major threat to the forest. The problems of institutional arrangement such as access to membership, decision making, forest related benefit sharing were also found to be factors accelerating forest destruction. The use right claim by the non member's of community around the forest and reactions to their claim was seem to be disappointing the groups.

The issues of conflict over resources among the user group, and those who claim the use right was raised from the poor participation of the concerned. Lack clarity of forest boundary have greater problem in order to enforce the rule of community by law. Having this as pretext, most non-members and the members of FUCOP encroached to the forest land.

The findings also show that in some parts of the study area (Chilimo & Gaji) the already degraded area was covered by newly growing shrubs and saplings. This study also found out that communities around the forests have no ownership of the forest. Hence, these groups with lower sense of ownership were found to have doubt and insecurity regarding to the continuity of the program. The source of doubt identified were tenure security and property regimes, limited support from the government, the transfer of power to permit construction tree to Oromia forest enterprise and poor financial management. Benefit share related problems and size of attributes (users and resources) have also greater impact on their participation.

The finding also shows that the present level of partnership between proponent actors such as cooperative promotion office, Agricultural office and enterprise of forest is too poor to allow successful community based forest management due to the responsibly overlaps. It also revealed that in order to effectively accomplish the objectives of community based forest management the rules and regulations (community bylaws) as well as the recommended rules by the higher institutions (forest enterprise) were not respected by all stockholders. This violation of rules resulted in recurrent conflict among members, non members and embezzlement which resulted in mistrust among the group.

Accordingly, the finding showed that due to the violation of community bylaw by the concerned forest management actors and in order to be beneficial from the forest, non members and members of forest users were following different forms of adaptation to access to forest product. The adaptation is in the form of working as laborer for the FPC members or through relative relationship, etc. If this is not successful the community who claim the use right were resisting against rules and regulation of community bylaw in the form of covert and overt forms of resistance.

7.2. Conclusion

Participatory Forest Management has been adopted as an alternative approach since 1970s with the objectives of reducing forest degradation on one hand and improving the living condition of the society in and around the forests on the other. The study has shown that there are different attributes that affect local people's participations in forest management.

During the investigation stage of PFM plan, there was no or little involvement and participation of communities around the forest on the design and planning of the PFM. The

issue of ownership right is the one which limits the participation of community in forest management. This study also found out that communities around the forest have high tenure insecurity which discourages active participation in forest management activities. Moreover, Boundary clarity related conflicts; institutional arrangements such as access to membership, equity in forest product benefit sharing were also found to be problematic. The current heavy dependence of community on NTFP may lead forest to the verge of no more use full. Therefore, External support, particularly targeted at livelihoods improvement should be planned in such a way that it enhances self reliance in a given period of time.

In order to achieve this community based forest management principal actors have to devolve their responsibilities. According to this study the woreda cooperative promotion office, agricultural and rural development office, woreda level forest enterprise and FPC as a whole have different responsibilities. In some case even though the management responsibilities are over lapped the coordination among them in forest management issue was found to be minimal. Due to embezzlements of community money and mistrust among FPCs, they were not exercised their perceived roles in order to achieve goal of their plan. The actors net work with higher officials, their relatives and the powers dynamics among the stakeholders have impacted on the forest management process. Due to this the finding shows that the communities started to use some forms of methods to access to forest resources such as the adaptation and resistance strategies.

7.3. Recommendations

Based on the findings of the study, I forward the following recommendations.

Empowerment and participation

The present level of partnership between the local actors appears to be weak which limited the success of participatory forest management. Further it was important to assess the capacity of Forest Protection Committee (FPC) with regard to exercising good governance in PFM. Each decision making in collective action has to be legitimate, transparent and accountable, so that the members should be able to trust the relevant rules & regulations are being upheld and their interests are protected. It was also important to consider the issues of '*adaptation*' and *'resistance'* by the local communities to respond to the actions of stronger state actors which often frustrated while implementing support to protect forest resources.

Tenure security and policy implications

Property rights arrangement should be clear and there should be effective and reliable legal mechanism to protect communities' interests. The community should be provided with clear security of tenure over forest resources so that they got recognition in light of other users or non users and be confident enough to invest their labor and time for long term benefits.

Policy makers should revise the power overlapped between the proponent actors in managing the forest to clearly devolve forest management responsibilities. The forest managing actors should be committed and coordinated to attain their objectives of PFM.

Finally, in the study area community should be encouraged to allocate fixed plots to grow fast growing exotic trees like eucalyptus woodlots to satisfy their domestic energy needs and to generate some additional income to supplement and diversify their livelihoods. This effort can greatly reduce the exploitation and heavy dependence on the natural forest mainly through gathering of firewood and timber for construction.

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APPENDICES

Annex: 1 Key informant interview

Forest Protecting Committee (FPC)

1. Who owns and use forest and in what conditions before the introduction of PFM?

2. Does the forest have a clearly demarcated boundary and recognized boarder?

3. Is there any threat to the forest from the surrounding (interest group who claim use right over the forest resource)?

4. How do you accommodate the interest of forest user group and their families who are not members of the FUG?

5. Do you think forest management plan is implemented effectively?

6. What roles do the government the government administration (DA, woreda expert) play in managing the Chilimo-Gaji forest?

7. Do the government representatives coerce you in any form of PFM related issues?

8. How do you evaluate the degree of your communication with the higher strong actor state?

9. Is there any difficulties that hinder your actual power in order to fully carryout the PFM plan?

10. How do you discharge your responsibilities as forest protecting committee?

11. Are you satisfied with your empowerment and decision making in the community?

12. How do you evaluate the extent and condition of external support (training, legal administration)?

13. Are you comfortable with the community bylaw of forest management plan?

14. What do you think are challenges in participatory forest management in Chilimo-Gaji PFM context?

15. Is producing forest management activities is participatory?

16. Do women equally participate in the use and control of forest management?

17. What are forest management activities in which the members are participate?(developing, protecting and utilization)

Annex: 2

Key informant interviews

Ordinary Forest User Group (FUG)

1. How do you come to be a member of forest user group?

2. Is the existing local community size manageable to run PFM successfully?

3. Who is the local community actually participate and make decision in forest management process?

4. Is there any threat to the forest from the surrounding (Interest group who claims the use right of the forest)

5. How did you access to the products of non timber forest product such as firewood, grasses etc

5. What is the extent of decision making power and democratic nature of FPC, how do you react to any form of misconduct against the community bylaw?

6. How do you react to the interference from higher authorities in your affair in the area of forest management?

7. How do you evaluate the degree of solidarity and cohesiveness of the members' in FUG?

8. Are you comfortable with the bylaw of forest management plan?

9. How do you evaluate the extent and condition of external support (training, legal administration)?

10. If you are nominated as forest protecting committee in your group, what do you think is the challenge you may face?

11. Why do you think is that FUG members are eager to have or reluctant to have responsibility as FPC?

12. Do women equally participate in the use and control of forest management?

13. What are forest management activities in which you are participate?

14. How often do you come to meeting and how is the process and the way people make decision in meeting?

15. What do you think are challenges of Chilimo-Gaji participatory forest management?

Annex: 3

Focus Group Discussions

Forest User Group (FUG)

1. How did you come to be a member of forest user group, what are the criterions?

2. Is there any loss you incur by being a member of forest user group?

3. Is the existing local community size is manageable to run PFM successfully and how is the issue of access to forest product?

4. Who actually participate and make decisions in the forest management process?

5. How did you access to the products of non timber forest product such as firewood, grasses etc

5. How do you evaluate the degree of solidarity and cohesiveness of the members' PFM?

6. How is the clarity of the boundary of forest land use and agricultural land use?

7. Do you feel sense of security of ownership of the forest? Does this feeling affect your level of participation in forest management activities?

8. Is there any conflict with forest user group and peoples who claims the use right

9. What do you think are major challenges in Chilimo-Gaji PFM?

10. What is the extent of decision making power and democratic nature of concerned bodies like woreda experts and FPC in respecting the rule of community bylaw?

11. How do you react to any form of misconduct against the community bylaw?

12. Is there any threat to the forest from the surrounding community *(*interest group who claims the use right***)***

13. How do you evaluate the extent and the condition of outsider support (training, legal administration?

14. Are you comfortable with the bylaw of forest management plan?

15. If you are nominated as forest protecting committee in your group, what do you think challenge that you may face?

16. Do women equally participate in the use and control of forest management?

17. What is the extent of FUG dependencies on forest resource? Does this dependency create participation difference?

18. How often do you come to meeting and how is the process and the way people make decision in meeting?

19. What are the forest management activities in which you are participate?

20, what is the extent of community participation in all of the process of PFM (investigation, negotiation, implementation and evaluation)

Annex: 4

Focus Group Discussion for Non Forest User Group

1. How do you participate in use and management of the forest?

2. What do you think is the reason for your exclusion?

3. Do you think that the forest reserve needs to be managed in participatory approach?

4. Who do you think shall own the forest reserve (government, private, selected community open to all), why?

5. How do you address your concern regarding to the forest use right with the immediate FPC and higher authorities of forest manager?

6. How do you react to your exclusion from the use right of this forest?

7. Is there any loss you incur due to your exclusion from the membership of forest user group?

8. Do you want to be a member of FUG in the future

Annex: 5

Questions for key informant experts

1. Does the forest have clearly demarcated boundary and recognized boarder?

2. Does the forest face any threat from the outsider? If yes what was your reaction to them?

3. Was there any negotiation and agreement with other interest groups around forest who claim the use right?

4. What is your opinion about the community (**FUG**) access to the forest?

5. Do you think that there is a harmony between protection need of the government and the harvesting needs of the community?

6. Have you observed any improvement on the status and condition of the forest since the establishment of PFM approach?

7. What are your roles and responsibilities in achieving the PFM objectives?

8. What do you think are challenges and constraints of PFM in Chilimo-Gaji context?

9. How do you evaluate the power dynamics of key actors in Chilimo-Gaji participatory forest management?

10. Is there any response/complains for the use right from community around the forest?