

Forest Land Use and Management Plan Implementation of PFM Sites Established within Kafa Biosphere Reserve, SW Ethiopia

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Abstract

For long periods, most state owned forestlands of Ethiopia with their biodiversity resources are protected areas with restricted access for local communities. This system challenged the state forest policy negatively for couple of decades. Currently, forestland use scheme introduced new forestland planning scheme as complementary mechanism, which safeguards forests with its own FMP documents with shared responsibility of local people and the government. Ironic to its special character, its management rescued for its local significances where by local people need benefit to manage the common pool resources to meet the broader societal goal of environmental improvement. Hence, this study was conducted to examine the pattern of Forestland use and management plan of PFM sites established within Kafa Biosphere Reserve”, SW Ethiopia. In this study conducted at 16 PFM sites within five districts, were purposively studied via focus group discussion with 146 FUG committee members and reflected to the total 358 members at districts level. In addition, the results were triangulated as well. The study concludes that in forestland planning starting from site identification to institutional organization and developing forest management plan NABU played significant role. The study reveals that the forestland use plan made such participatory with specific and measurable activities shared among the government and the local FUGs come up with successes and some potential challenges in implementation of the plan as new paradigm in the Kafa Biosphere Reserve.

Keywords: Forestland use, PFM, Forest Management Plan, FUGs

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1. Background

Ethiopia is one African country, with ample natural resources reserves with global function. From different Natural resources of the country, the Kafa Biosphere Reserve (BR) by UNESCO in June 2010 as the first “*Kafa wild coffee Biosphere Reserve*” in the world (Weldemariam et al, 2016) with its wild form that registered globally as Afromontane evergreen forest. It stretches for more than 760,000 ha and covers a forested area of about 352,000 ha, part of the Eastern Afromontane Biodiversity Hotspot. (NABU, 2013). It was expected to become a worldwide center of attraction for coffee consumers and Eco tourists. In this regard, it was noted that the culture-historic landscapes were characterized by a fusion of different cultures and their history. This reveals that the forest ecosystem makes an important contribution to the livelihoods of people in the area. It provides wild coffee, a variety of commercially valuable spices and honey from wild bees. Generally, it is the base of economic, socio-cultural and ecologic importance for the society (UNESCO, 2008) with communal harvest for a centuries, but conserved traditionally. For couples of decade’s forestland use plan was known for its restricted approach where government based protectionist system degraded forestland coverage and structure. Recently, PFM scheme introduced within forestland use plan and management great solutions for restricted approach planted to new forest land use plan with a view of optimizing forest resource uses and promote sustainable forest management in the country through community participation (GOBEZE et al, 2009, Ayana et al, 2015, Tadesse et al, 2013). Some efforts have put as policy ground to initiate the process in involving communities to get stake in decision-making.

In Ethiopia, according to National forest resource based proclamation (stated pro.no.542/2007), the sustainable utilization of the country’s forest resource is possible through ensuring the participation of, and benefit sharing by the concerned communities as well as by harmonizing forest policies with other economic sectors (Proclamation, 2007). This manifestation provided a room for paradigm shift on conservation, development and utilization of forest resources from exclusive to community participation. The proclamation has served as basis to practice PFM in the country in general and in Kafa zone in particular.

In forestland use plan and management PFM is a new paradigm of forest management which is adopted and implemented in order to fulfill the interest, respecting of traditional users, and bottom-up approach which encourage a sense of belongingness to the rural people in general and landless rural youth in particular (Tadesse et al, 2013). In Kafa zone the interest of forest conservation as BR and the availability of historical forest dependent minority peoples of Manja (locally Known as “People of the forest” lives within forest with no/poor educational access only using forest resources as their livelihood base for centuries) makes special.

1.1. The Problem Statement

The establishment of PFM approach in the forestland use plan and management allowed the local people to gain benefits side by side protecting the forest from degradation. Few comparative studies on the forest condition and

socioeconomic benefits of the forest user with in PFM and outside PFM managed forest carried out in Ethiopia, but with certain limitations. For instance, study by Gobeze *et al* (2009) in Bonga forest, considered comparison of the natural forest blocks found under PFM and outside the PFM regime and the socioeconomic benefit difference before PFM and during implementation, but study did not address forest dependent non-PFM member communities. Study by Yemiru. (2011), also investigated only the impact of PFM on sustaining socio economic condition in the Bale Mountains of Southern Ethiopia, without in depth consideration and evaluation of its impact on forest condition as studied by Tadesse and Alemtsihay-Jimma, (2012), in Dendi District of Oromia.

That is why; many scholars argue that local people should benefited in some way if they are to manage common pool resources to meet the broader societal goal of environmental improvement (Abate, 2005; Ayana et al, 2015). In other words, it is argued that one of the prerequisite for conservation is the integration of local institutions with the government policy starting from initial forestland use plan and management indeed. There is wide spread belief with respect to gaps and limitation in effective implementation of the three forest-related activities included in the community FMP document notably; *forest protection, forest development and forest utilization*, all together contribute to the effort of sustaining long-term forest benefits without permanent damage to the resource base. Hence, the agreements made between communities and government needs to secure a continuous commitment to the rights of communities. The government commitment needs to be stable without contradictory actions to ensure trust and dedication to the agreement from the community side (Winberg, 2010) that to be compatible with Sustainable Development Goals. In this regard, forestland use plan at PFM scheme expected to contribute some for improved food security and poverty reduction (PFM-WG, 2010).

The PFM experiences in the developing world, for example, in India and Nepal often relied on donor support with the consequence that innovations in one project area are not necessarily replicated in other areas and that innovations end when the project ends (Ameha, 2011). The same is true in Kafa BR, NABU is an agent organized the scheme and donating institution, coordinated forestland use and management plan development. The detail activities indicated within FMP as tasks and its continuous monitoring over forestland use plan frameworks expected with significant outputs from all PFM sites within Kafa BR. Whereas, the observable sign of the forest degradation at all corridors indicates forestland use plan implementation. This is highly related with population pressure on forest resources for their immediate needs in one-hand forestland-use plan implementation irregularities on the other hand.

Therefore, the study aimed to evaluate forestland use and management plan implementation at each PFM sites established within globally acknowledged Kafa BR and its special wild Arabica coffee within different Afromontane forest species proved mandatory and is the state-of-the-art for regional development.

1.2. Objectives of the Study

The general focus of study was to “examine Forestland use plan and management scheme at PFM sites Established within Kafa Biosphere Reserve, Southwest Ethiopia”.

Specifically, the study aims to:

- ❖ Explore the phases of forestland use plan and management conditions, the establishment PFM sites within Kafa BR and its institutional functions.
- ❖ Examine the successes and failures of PFM scheme in implementing the FMP.
- ❖ Identify measures for improved PFM implementation, management and awareness creation via national policy of Ethiopia.

1.3. Research Questions

Based on the above specific objectives, this study aimed to address the following research questions.

- ☞ How does PFM scheme established within Kafa BR, institutional function, and the state forest governance stipulated within FMP?
- ☞ What were the imperatives and impacts with the establishments PFM sites of Kafa BR?
- ☞ What measures expected to see improved and sustainable forest management scheme that is compatible with social and environmental security?

2. Materials and method

After defining the objectives and research questions of the study, the study conducted at 16 PFM sites of five districts. The study enrolled both primary data collection from local people and government actors and secondary data collection from existing documents. The main input to the report was compiled data collected from 146 PFM committee¹ members through questionnaire; designed to collect both qualitative and quantitative data. The data collected has been analyzed and compiled for further verification through reflection work with wider user

¹ The 9 main committee members and 3 custody committee members were expected in evaluation stage at each PFM site, but due to some inconvenience in some sites getting all on time have been very difficult.

communities (400 FUGs) and government representative (gave constructive comments for both FUGs and evaluators to see things in depth). In addition to this an open key questions were posed for discussion during reflection to strengthen the previous information as triangulation to enrich the result of the study.

Further feedback before and after the reflection workshop is obtained from the consultative discussion and document review from NABU local coordinator and Natural resource officer.

3. Discussion and analysis

3.1 Processes in Forestland use and Management plan of PFM sites within Kafa Biosphere Reserve

3.1.1 Site Identification Process

The study identified the establishment of 16 PFM sites located in 14 Kebeles of five (Adiyo, Decha, Gesha, Gimbo and Saylem) of the ten Districts within Kafa biosphere reserve. The results of the assessment shows the PFM establishment process has been based through involving rural households that permanently dwell and use forests of the particular Kebele, interested to manage and use it based on the developed management plan. It identified that the PFM establishment process has passed a consultative steps at District, Kebele and community level during the identification of forests and forest users. Kebele administration, development workers and elders have played important role in the indication of traditional users and boundary of the forest.

From the assessment, total area of forestland demarcated and transformed into community management through PFM approach is 11538.91ha. All of the 16 PFM sites have unique names borrowed from each locality and named by the consent of members.

3.1.2 PFM site Establishment Stage

All the sixteen PFM sites have signed management agreement with their respective District agents for the transfer of management responsibility. This transfer is realized based on the produced forest management plan and forest agreement documents prepared by plan preparatory committee supported by PFM experts and foresters. The approval of management responsibility was made through signing ceremony between FUGs and local (District) government. District administrators and respective Justice and Security officials, Zonal media and communication (FM), agriculture development office heads, NRM coordinators and experts, cooperative office heads, District prosecutor, KFCFCU manager, NABU Bonga office representatives and NABU PFM experts attend the signing ceremonies (KFCFCU, 2013). The formal establishment of all 16 PFM sites is officially recognized by District and Kebele administrations. This is ensured both by distributing the copy of agreement documents and by inviting representatives of relevant institutions during agreement signing ceremony.

3.1.3 Membership and Members' Reflection

All FUGs stated that the members totally agreed on the establishment of PFM in their local area with official use right recognition without sex, age and clan based discriminations. Respondents also confirmed that membership enrolment is based on the interest and free will of households; realized through registration by signing confirmation for membership and submitting application letter to ad-hoc plan preparatory committee. The registration signature to PFM management plan document as evidence and about 7948 members (4304 or 54.15% male and 3644 or 45.8 %) are registered members.

3.1.4 Forestland use Planning Process at each PFM sites

One of the important focus of the study was investigating the quality of the planning process. With this respect, the respondents indicated the chain of important steps covered during the establishment process. As the result, some of key themes were addressed in the course of the planning process were indicated below:

- a) Community discussion and repeated meetings: In all the sites, respondents confirmed that there were a number of discussions, advocacy and promotion at the beginning and subsequently focused towards PFM scheme. Training of representatives of the community and committee members, it can be stated that effort for awareness creation has been put.
- b) Nomination of representative plan preparatory committee members: In order to measure the participation level involvement of local communities and the representativeness of participants have also been assessed. The formulation of plan preparatory committee (PPC) representing the interest and needs of communities has been set through nomination by the traditional users assembly meeting. In the committee, the representation of women and Manja minorities were recognized as mandatory bylaw.
- c) Forest users' identification: As part of the investigation process all traditional forest users have been identified. Block level user identification using key informants, Kebele administrators served as a means to ensure inclusiveness of all.
- d) Participatory Forest resource assessment: The planning process also did assessment of the forest at two stages. The first is a rapid forest assessment made using Participatory Rural Appraisal (PRA) tools. Especially by preparing resource map and by making transect walk. Beside this at the latest stage of the investigation, respondents mentioned they have made more formal resource assessment that uses tools like compass, telescope and GPS. This assessment has 14 criteria to evaluate the status, problems and potential of the forest. It also served to determine the different management activities as prescription based on the finding.

- e) Forest boundary identification, negotiation on border limits and demarcation using GPS and paint. One of the important activities most forest users, foresters and Kebele administrators easily inform is the deeds of forest boundary demarcation. All respondents unanimously accorded that forest boundaries have been demarcated and clear pain marks put on trees. Most respondents fairly know the preparation of forest maps for their respective PFM.
- f) Draft forest management plan and agreement document preparation: The respondents and reports confirmed the preparation of draft forest management plan and agreement document together.
- g) Discussion and community approval on management plans and agreement documents
- h) Election and nomination of forest management committee members
- i) Organization and celebration of PFM agreement between community representatives and District government administration.

The handing over occasions started first in Decha District on November 2011 and continued to November 2013 at Adiyo District. Within these years about 11538.91ha of the forestland with dense covered state were legally recognized for FUGs with use right and management, development and protection responsibility. That is why the study focus on the evaluation of forestland use and management plan at each PFM sites in their current states.

Generally, the forestland use plan and management scheme of PFM sites shows starting from the plan to the expected activity implementation it was participatory.

As a principle, to guarantee the forestland use plan regulations respected and that the benefits of forest management are shared requires increased transparency and accountability in the governance of the forestry sector. Calls for sustainable forest management will simply go unheeded if the legal, policy and administrative environment do not effectively control undesirable practices (Demel Teketay and Tesfaye Bekele, 2005). That is why legal use right was vested bylaw.

Table: 3.1 Basic information on PFM Established sites by District and Kebele

District	Kebele	FUG Name	FUG members of 16 PFM sites with their Districts								PFM area (ha)
			M	%	F	%	T	%	Manja	%	
Adiyo	Angiyo Kola	Eno	544	26.86	512	24.17	1056	25.49	50	4.7	1138.9
	Mediwuta	Medwuta	416	20.54	436	20.58	852	20.56	28	2.93	787
	Sharada	Sharada	851	42.03	935	44.15	1786	43.11	12	0.67	934
	Yecha	Yecha	214	10.57	235	11.10	449	10.84	12	2.67	919
		Total	2025	100.0	2118	100.0	4143	100.0	99	2.4	3778.9
Total of the whole site by District			2025	48.88	2118	51.12	4143	52.12	99	25.52	32.74%
Decha	Boba Meliyo	Boba Meliyo	306	40.75	79	34.96	385	39.4	*	*	742.52
	Modiyo Gombera	Buna Shuniyo	174	23.17	10	4.42	184	18.83	34	18.47	688.5
		Gora	133	17.71	26	11.5	159	16.27	33	20.75	400.4
	Yaha Hachecha	Eta Hachecha	138	18.37	111	49.12	249	25.5	26	10.44	837.75
		Total by each Site	751	100.0	226	100.0	977	100	93	9.52	2669.18
Total of the whole site by District			751	76.87	226	23.13	977	12.29	93	24.67	23.13%
Gesha	Kicho	Shuno Yerina	98	56.32	57	52.29	155	54.77	0	0	448.9
	Didifa	Dadati	76	43.68	52	47.71	128	45.23	38	29.69	247.7
		Total	174	100.0	109	100.0	283	100.0	38	13.43	696.6
Total of the whole site by District			174	61.48	109	38.52	283	3.56	38	9.79	6.05%
Gimbo	Ufi udo	Kumiti	126	11.62	6	0.67	132	6.68	10	7.57	386.4
	Hamany	Gacemo	260	23.99	256	28.73	516	26.13	38	7.36	368.84
		Wodito	384	35.42	316	35.47	700	35.44	46	6.57	1235.23
	Tega	Wohabina Gori	314	28.97	313	35.13	627	31.75	23	3.67	693.26
		Total	1084	100.0	891	100.0	1975	100.0	117	5.92	2683.73
Total of the whole site by District			1084	54.89	891	45.11	1975	24.84	117	30.15	23.26%
Saylem	Tebela	Hawurinakukir	156	57.78	171	57	327	57.37	20	6.12	450.8
	Shenkora	Halo Ganity	114	42.22	129	43	243	42.63	14	5.76	1259.7
		Total	270	100.0	300	100.0	570	100.0	34	5.96	1710.5
Total of the whole site by District			270	47.37	300	52.63	570	7.17	34	8.85	14.82%
Grand total of each sites of 5 Districts			4304	54.15	3644	45.85	7948	100.0	384	100.0	11538.9

Source; NABU proceeding training Report 2013 and Survey 2014

As shown in the table above, and confirmed at focus group discussion described that Manja peoples, one of the minority ethnic groups, were extremely ostracized and marginalized group and known by the nick name 'fuel

wood sellers', due to their high dependence on firewood and charcoal sale for livelihood. The Menjas were not able to sell other produces except firewood and charcoal because other tribes would not greet them, nor would they allow entering their houses (T. GOBEZE, M. BEKELE, M. LEMENIH and H. KASSA, 2009). However, with PFM scheme both Menjas and Women were recognized equally with no restrictions.

3.2 Implementation of Forestland use and Management Plan at PFM sites

The establishment of PFM sites has a number of achievements on the areas where FUGs become recognized members by local government. Since the traditional use different actors recognize right of FUGs in all sites the first value added as stated by respondents is the great sense of belongingness as a positive turning point for the agenda of community (customs, traditions and beliefs) based forestland use and management plan for sustainable use.

The plan its implementation activities refer to the issues stated in the management plan. These planned activities include tasks related to forest development, forest protection, forest utilization and continuous monitoring and evaluation of management plan.

3.2.1. Forest Development

From the assessment of forestland use management plans and community consultation, forest development was understood as putting effort back to planting and caring. In the management plan, development activities are linked with opened areas by previous exploitation and on the outer forest boarder as buffer plantation.

When it is looked at the purpose of development it can be grouped into two big categories such as 1) rehabilitating and preventing forest degradation by planting indigenous tree species. 2) Increasing the use value of the forest for community by planting and tending different species on open and degraded areas within the forest.

3.2.1.1 Indigenous Tree Planting

Since the establishment of the 16 PFM sites, about 99,460 tree seedlings were planted with the effort of the FUGs. In most PFM sites, the types of tree seedlings planted include Hagenia Abyssinica, Prunus Africanum, Malava Verticillata, Mellettia Ferruginea, Juniperus Procera, Albizia Anthelmintica, and Codia Africana etc. To safeguard the seedbed sites and the boundary lines fences were constructed by rejuvenating tree type with the participation of members by plan.

In general, with the establishment of PFM sites planting trees that should have been the responsibility of local government has been taken care by the forest users. In both the management plan and agreement documents the District office of agriculture is expected to lead, coordinate, facilitate and ensure forest development, particularly tree planting. However, the role of the office has not been yet visible at all. Communities have been at least supplied with nursery tools, seeds and technical support at the very start of the action. Many PFM site representatives have presented this in the form of complaint during reflection workshop. The reporters believe this would have improved the level of achievement. Similarly, NABU was expected to link the reforestation and community plantation plan with established PFM sites. Except for Gora, Eno Gachemo and Buno shuniyo NABU has missed this opportunity.

Since PFM establishment is new to the areas the exposure to work in-group led by themselves would be one limiting factor that emanant from lack of experience. Especially such development works need fair responsibility disposition to all members. It demands advice and setting up of mechanism workable for all. It would have been the role of development workers and forests to fill this gap until the committee is confident enough to run independently.

Table: 3.2 Tree planting plan implementation

District	Kebele	PFM site	PFM Area in ha	% forest under PFM	No of trees planted	District level performance in%	Contribution to the total tree plantation in %
Gimbo	Ufiudo	Kumiti	386.4	14.4	0	0	0
	Tega	Wohabina Gori	693.26	25.83	6100	65.73	6.13
	Hamany	Gacemo	368.84	46.03	2006	21.61	2.02
		Wodito		1235.23	46.03	1175	12.66
Total			2683.7	100	9281	100	9.33
Grand Total of Gimbo District			2683.7	23.26	9281	9.33	5th rank
Decha	Boba Maliyo	Boba Maliyo	742.52	26.33	0	0	0
	Modiyo	Gora	400.4	15.31	10400	31.14	10.46
	Gombera	Buna Shuniyo	688.5	26.33	0	0	0
	Yaha Hachecha	Eta Hachecha	837.75	32.04	23,000	68.86	23.12
Total			2669.1	100.0	33,400	100	33.58
Grand Total of Decha District			2669.1	23.13	33400	33.58	2nd rank
Adiyo	Angiyo kola	Eno	1138.9	30.14	1500*	16.04	1.5
	Sharada	Tura	934	24.72	-	0	0
	Yecha	Yecha	919	24.32	7750	82.89	7.89
	Mediwuta	Mediwuta	787	20.83	-	0	0
Total			3778.8	100.0	9350	100	9.4
Grand Total of Adiyo District			3778.8	32.75	9350	9.401	4th rank
Gesha	Didifa	Dadati	247	35.49	6400	61.54	6.44
	Kicho	Shuno Yerina	448.9	64.51	4000	38.46	4.02
	Total		695.8	100.0	10,400	100	10.46
Grand Total of Gesha District			695.8	6.031	10400	10.46	3rd rank
Saylem	Shenkora	Halo Ganiti	1259.7	73.65	12,530	26.36	12.53
	Tebela	HawurinaKukiri	450.8	26.35	35,000	73.64	35.19
	Total		1710.5	100.0	47,530	100	47.79
Grand Total of Sylem District			1710.5	14.83	47,530	47.79	1st rank
Total Forest development in all sites			11537.9	100.0	99,460	100	

Source:- filed Survey

*-represents planted by NABU.

3.2.1.2 Non Timber Forest Products (NTFPs) planting

There are two distinct activities accomplished with respect to NTFP development. The first action is management and tending operation while the other is linked to planting from seedlings collection elsewhere in the forest by FUGs. Accordingly, among the PFM sites 32.75ha of NTFPs were well managed where they were naturally growing and planted on open spaces.

From the assessment it can be seen that start-up of activities as encouraging. Particularly forest development, which often is unthinkable for many experts being realized. The same is true in adding value to the forest potential through tending and stocking open areas with economically rewarding NTFPs and by bringing more trees for beehive hanging. These activities obviously increase the products harvested from the forest resource. Despite this fact however, the performance of development activity against the management plan is both less and show big difference across PFM sites.

The main factors for both the underperformance and disparity include:

- Less commitment and passiveness of committee in communicating with each actors within the FUGs and other stakeholders. It is related with low awareness and tiresome state of committee in coordinating and facilitating activities indicated in the FMP.
- Interferences of some Kebele administrations that halt seasonal activities like tree planting in Modiyo Gomebera and Kicho Kebeles caused both missing opportunities and creating sense of frustration among PFM user groups.
- The observation of tree regeneration and restocking during patrolling activity by many members force them to question the need to plant trees while naturally growing. Hence, argue to skip planned plantation and focus protection to perform the role of forest development in a natural way.
- Low support (material, technical and administrative) from actors particularly from WoARDD and DAs at Kebele level.

e) Poor implementation of Monitoring and evaluation.

Throughout all the 16 PFM sites assessment periodic monitoring that is supposed to be carried out jointly with all administrative actors has not realized.

3.2.2. Forest Protection and Its change

Forest protection was regarded in the forestland use management plans of all PFM sites as preventing damage and unauthorized extraction. The plan specifically linked with experienced threats and activities prevailing during and earlier to the plan preparation period. The protection activity targets both outsiders and members as well. It also considers human being and domestic animals.

Forest protection was implemented mainly by assigning members to a daily patrolling task. There are established three control sub-committee members that assigns and supervises assigned members performance. On average 2 members are assigned daily to patrol a block and there are 3 to 11 blocks within one PFM forest estate. Sub-block level protection responsibility sharing system appear better working as it indicates daily engagement of individual members.

The focus of the patrolling is boarder stability, tree cutting, grazing and checking non-members activity and mobility within the specific PFM forest. For simplicity and closeness, most assignment of patrolling individuals is linked to the adjacent forest to their houses. This gives them notice strange activities and potential threat areas from their experiences. Across the whole PFM sites, the control committee and daily assigned patrol members communicate through a reporting system that describes the state of the forest during the patrol day. One key finding related to patrolling is Manjas stress due to their closeness to forest edge. They claimed that they fight with illegal users in all the times because of their strategic settlement. However, nothing is special to this clan on the benefit side and the task is routine every day the whole period. This seems a bit difficult to supervise and create sense of negligence as the report shows. Incidence and casual patrolling, tracing illegal work seems important protection activity. This indicates irregularities in forest protection.

The forest protection plan was challenged by the existence of illegal users for firewood, charcoal and uncontrolled pressure of animal grazing due to seldom or no patrolling by PFM committee members by associating the case with lack of support from government side.

The existence of non-demarcated forest adjacent to the demarcated forests also challenging the FUGs of Wohabina Gori, Shuno Yerina, Dadati and Eno PFM sites in forest protection as non-demarcated forest is frequently used by illegal users as it was not recognized for the FUGs. This implies the accurate area of these sites is not known for better forest management for the committee and the related challenges could not be solved easily if it was not done at its infancy stage.

3.2.3. Forest Utilization: Regulation of Forest Resource

In all PFM sites, utilization has been fear factor during planning process. Due to this utilization plan has touched three distinct utilizations notably individual use without permit, use with permit and communal use as a PFM unit. In all the assessments, FUGs and committee members confirmed the continuation of non-permit needing use rights. This has described as the indicator for many for the security of their traditional use. It also showed the comparative advantage of being member for fearless use in need. In this regard utilization of non-timber products individual harvesters pay certain proportion either in kind.

On the other hand, permit based utilization is linked to cutting big trees for construction. In this respect, all the 16 PFM sites confirmed they do receive permit request by members when members want wood for house construction. As soon as the permit request arrives, the committee discuss and pass the detail of the permit to block level sub-committee for supervision. One of the areas of broad knowledge understood by the members is clear knowledge on the quota of the permit. For example, the number of house construction permit in a year is well reminded by all.

In PFM site like in Kumit the institution plays social role by contributing wood demand by non-members on haphazard times. In other cases like in Gora and Bunashuniyo there is cooperation in exchanging forest products like climber versus coffee. One key aspect of the utilization is that whenever permit request is presented to the committees they do assess the participation of the applicants in all the management activities.

The other form of utilization is group utilization. Particularly in those PFM sites like Ufudo, Buna shuniyo and Tega where forest products are not claimed by traditional users, the harvest is done by all members and the committee is responsible for selling and depositing it on the name of each respective PFM sites.

Utilization is generally considered as progressing as expected. The new arrangement from sale and other revenue has not yet being tested at individual level except for speculating future benefit. Yet not complain is presented during this particular assessment nor in the reflection workshop indeed.

From the assessments except for the responsive sense of feeling, non-permit and permit requiring use are replied. There is no evidence that reduced proportionate to the overall quota imposed the requested product. Particularly, this is related to forest products essential for house construction. The only restriction is associated with timber. Even this its use is regarded as illegal before PFM establishment. After establishment serious scrutiny and often deny may happen as it is regarded as banned activity in all of the PFM sites.

One new element with respect to utilization is forestland managing the fair spatial distribution of harvest determined by the main committee and supervised by the sub-block control committee. This otherwise would have been done spontaneously with respect to the choice and easiness to the user. This can be considered as management of tree stock population.

One area of fraud related to utilization is favoring relatives and friends to use more than others. This is usually prevalent during patrolling. Some assignees invite their relatives to use that date for unproportioned use as a favor. This is widely practical in Boba Meliyo and Shuno yerina. The case is also capitalized during the reflection workshop.

Most importantly, the low living standard of Minority Manjas is felt creating use fallacy. This in some cases is presented as source of mistrust. Non-Manja members consider them as double utilization of permit requiring products unseen. Even they are still alleged of making charcoal and selling fuelwood. This is a point of hot debate during reflection workshop in sites like Meduta. Manjas argue their livelihood is highly dependent for daily subsistence while others argue that they own similar farmland that should have been the source of their livelihood dependence rather than wood productions. This situation attracted the attention of the reporters to give due attention and special strategy to combat the inevitable effect to the system and socio-cultural tension if not treated well and quick.

When PFM was established to community it accompanied by a forestland management agreement and a plan that specifies restrictions and rights of forest utilization for the community. The utility is often strictly limited in regards to timber products from the forest, which had been the most important source of income generation before the introduction of PFM. The management plan generally regulates extraction levels. According to Winberg (2010), the utilization of forest products is usually restricted and quotas for extraction are lowered to ecologically sustainable levels. If the allowed utilization is enough to be socially sustainable is an important question. Thus, the operation of forest utilization (for construction and related purposes) was/is with permission only for FUGs, in all sites based on plan and depends on the basis of personal participation of member(s) on forest development and protection. Most participant gets first chance by document assessment provided that the one more participated in forest development and protection get first chance, except the traditional users registered to use NTFPs (are treated based on the rule bylaw). It was adjusted to reduce pressure from forest resources for its natural regeneration.

On the other hand, economically significant values of forest before the introduction of PFM such as Charcoal burning, wildlife hunting, timber production and related forest degrading activities were prohibited by forestland use management plan.

The study confirmed that in most sites, householders/FUGs are planting trees for their personal consumption instead of depending on the natural forest under protection on their farmland. . This shift started in response to recurrent deforestation effects, forests are moving far away from villages. The cost of transporting trees from such distances become expensive and tedious. Besides the degradation of these distantly remaining forests are scarce in terms of the selection of woods for construction like straight poles and posts. On the other hand as peri-urban and village expansion consumes much trees the market value of trees become a very attractive incentive for individuals to plant and benefit from such opportunity. Woodlots and homesteaded plantation glaringly expands following this new socio-economic phenomena. As many FUGs gained, tree seedling development and communication based awareness on the situation the future less dependence due to the above factors and the restrictive use arrangement forced them to shift and fit into the new privatized tree stock establishment. Perhaps this is also shared at PFM unit level where commercial tree planting is an inclination at scene. So many PFM sites are observed planting trees that have market value for construction wood. This can describe as one good trend that would reduce degradation of the natural forest resources under PFM in the near future.

3.2.4. Institutional/ organizational strength

PFM arrangements also contribute to decentralization efforts that seek to devolve decision-making and some level of resource allocation to the local level. PFM offers opportunities to strengthen social capital and increase community voices around resource allocation and decision making that can extend beyond the forest sector. Investment to strengthen regulatory institutions and underpin administrative capacity is fundamental to improving forest management.

3.2.4.1 Executive Committee Performance

3.2.4.1.1 Committee Meetings

From the basement all PFM are organized in such a way that elected nominee leads FUGs by the general assembly of the users. The executive forest management committee is responsible for coordinating all the tasks assigned both in the forestland use management plan document and on the agreement document. On the other hand, the same committee is responsible to represent the group and benefits of the group as well as to defend the rights. Close look in the operational quality the first issues discussed is its arrangement. The committee members are assigned into sub task oriented category such as, chair/deputy chairperson, clerk, women and minority representation, control and development division. This committee are expected to regularly meet every one or two weeks. The study revealed that the frequency of conducting meetings is very low- 12.5% of the planned meetings.

This indicates that gap is left for the continuity of important tasks and correction needing matters. The prime reasons for this are negligence and lack of commitment from members, over stretched membership to many committees, government meetings and commands to pend meetings by District or Kebeles, lack of follow up and support and/or supervision from stakeholders expected to provide technical and managerial support according the management agreement.

3.2.4.1.2 Documentation and recording

All the three activities (development, protection and utilization), community participation demand recording and proper documentation for reference. However, the study found a bit non-promising. Most committee members elect illiterate secretaries are (will not read and write). The so-called secretaries are non-genuine and obedient. However, some chairpersons are so clever to recall most issues they lack support from secretaries to put into paper for documentation. Because of these, it appeared that many issues are orally described. In cases of committee replacement and absentee, most facts will be forgotten. Even in some areas, financial loss were suspected because of lack of documents as evidence to claim their imbursement.

This also affected overall planning and progress auditing the total activities indeed.

3.2.4.1.3 Coordination and Liaising

Areas like in Dadati, Haloganiti and Woabina-Gori the level of coordination and member mobilization is amenable. Some of them have extended their coordination to other critical social activities like support for HIV victims and orphan children. In addition, they sponsored family planning education by collaborating with health extension workers in their offices. There are similar coordination efforts to less satisfactory level in other sites. High engagement of problem solving capacity at local level in collaboration with Kebele administration is the other good sign for the presence of coordination.

3.2.4.1.4 Financial and property management

The finding of the study confirmed that the effort to identify the various financial revenues in all the sites is relatively good. Many committee members describe the various financial income types and their effort to accrue. Whereas both timely collection and proper deposition has issues questionable from security and transparency point of view. From 16 PFM sites only 4 (four) have legal Bank account and financial record. Even those with such legal account their financial management i.e., collection, deposition and withdraw has loophole susceptible for embezzlement and misuse. Besides all of them neither have business plan nor intention to prepare in the near future. Perhaps this is among the key roles and responsibilities of stakeholders clearly indicated in the agreement document.

The same is true for property management. Office furniture, farm tools and documents are not put in proper manner and no inventory has been conducted ever since establishment. This makes it susceptible for loss or theft.

3.2.4.1.5 Representation and Mobilization

The study concluded that, despite a good start of inclusiveness of all community category during the planning period and membership right. During implementation committee, setting at least one Manja and one women representatives are included in the leadership committees. However, these representatives do not have a special role to play with respect to representing the interest of their category and mobilizing the same. This made the role as normal as others did rather than representative to special category.

3.2.4.2 Participation of individual user members

In the entire forest management plan, the executive committees are expected to hold periodic meetings and consultations with all members at regular bases. From the fieldwork, however, many sites did not conduct assembly meetings as scheduled. During the communication, many committee members mix assembly meeting with Labor Day discussions they often hold. It seems that they have more frequency in either development activity gathering than assembly meetings that are quarterly or biannually. In addition, they consider that the labor day as a good opportunity to discuss matters of hot issues. In reality the assembly meeting is a purposeful meeting that should audit wider issues and status of their respective sites. However, it was full of noises in most sites.

Table: 3.3 The status of PFM Coop Functionality

Parameters	Description	Very high	High	Low	None
		>80%	50-80%	<50%	0
Respecting internal bylaw	Different Committee meetings conducted as per the plan	2	0	7	7
	Measures taken against the unaccomplished activities	1	1	3	11
	Total	3 (9.37%)	1 (3.12%)	10 (31.25%)	18 (56.25%)
Record Keeping	Financial records	2	1	5	8
	Institutional profile Reporting	2	3	3	8
	Proper documentation	2	3	4	7
	Total	6 (12.5%)	7 (14.58%)	12 (25%)	23 (47.92%)
Memberships	Percentage of women in the management committee	0	0	16	0
	Percentage of women in member	2	2	12	0
	The level of new applicants for membership	0	0	0	16
	Sense of belongingness among the members of FUGs	2	5	9	0
	Equal share of benefits and burdens as FUGs.	2	7	7	0
	Active participation of members on feeding constructive comments	2	4	10	0
	Total	8 (8.33%)	18 (18.7%)	54 (56.25%)	16 (16.67%)
Sum Total	17 (9.66%)	26 (14.77%)	76 (43.18%)	57 (32.38%)	

Source:- Field Survey

Based on the above-tabulated data, the performance of PFM with respect to cooperated effect was low. Beyond the short comes of committee members, the largest proportion of FUGs were not well engaged themselves within the PFM scheme. That why in PFM sites where the committee members were not active, the consciousness of the members were low and misses the planed tasks. As shown in the table above, of 62.5% PFM sites members do not give constructive feedback and comments and have low sense of belongingness. This due to three reasons:

- 1) Some members now registered as traditional forest resources users by law were not happy on the handing over the forest neither for PFM nor for investors, challenging the members by violating the contribution fees and related challenges.
- 2) In most PFM sites members were registered not to develop forest but to get legal use right. That why the development plans of most sites were not accomplished by its plan while the utilization plan was gone absolute.
- 3) Since the establishment of PFM sites in each Kebele and District, there is no support; neither material not technical were given except the NABU; supplied office construction materials, stationeries and ...etc., as establishing organization. That means invisible activities from actors based on the plan make them silent.

3.2.5 Supports from Actors

During the field work and triangulated in the conference; after the handing over confirmation ceremony there was low support from differ actors particularly the local government agents; gave less attentions for the forest development plan, the state of the art of which the cases of all PFM sites are analogous. As one can refer well, the plan dictates governmental organizations in their respective position as the main actors in which they as to plan and play their role for forest development by accelerating the FUGs, which is the great opportunity for the each Districts in particular and for the nation in general as natural forest development via participatory forest management approach is the state of the art, however it was not welcomed in practice. This may be reasonably due to these actors do not consider the value of PFM scheme by integrated activity without their direction or other misleading ideology.

Over regulation or inappropriate regulation of small-scale forest enterprises has inhibited the potential of PFM to reduce poverty (IEG, 2013). That is why the forest development plan of both Gora and Buna Shuniyo PFM sites was barred by Modiyo Gombera Kebele administrative of Decha District to twist the FUGs from their plan; that was a chronic challenge of the PFM site, even the DAs' participation too; with the reason yet not known.

As the same condition with unexpected intervention of Kebele administration in the times of forest development and Kicho Kebele administrative bodies disturbed the meetings and communications of committee members of Shuno Yerina PFM sites in Gesha District, shows these actors were not really in a position to support the forest management plan for the advancement of societal livelihood.

Table: 3.4 Level of communication and cooperation with different actors

Parameters	Description	Very high	High	Low	None
		>80%	50-80%	<50%	
Kebele Participation	Communication		4	10	2
	Administrative Support and Cooperation	2	3	4	7
	Supervision and evaluation	3	3	4	6
	Conflict resolution		5	2	9
	Support for use right recognition for FUGs.	2	5	6	3
Total		7 (8.75%)	20 (71.4%)	26 (32.5%)	27 (33.75%)
Agriculture office	Provide Technical support		1	4	11
	Material/input support			3	13
	Conflict resolution		1	3	12
	Encouragement		1	2	13
	Coordination		1	1	14
	Monitoring and evaluation based on the plan			2	14
	Meeting attendance			2	14
	Collecting reports and follow-ups			1	15
Total		-	4(3.13%)	18(14.1%)	106(82.8%)
District Administration	Administrative Support and collaboration			1	15
	Monitoring and evaluation			1	15
	Conflict resolution		1	3	12
	Providing support on use right recognition for FUGs.	1	7	6	2
Total		1(1.56%)	8(12.5%)	11(17.2%)	44(68.75%)
Sum Total		8 (2.94%)	32 (11.8%)	55(20.2%)	187(68.75%)

Source: - Field survey

As shown in the table above, the participation of the Kebele, District agriculture and rural development department and District administration; proved as the main actors rated 68.75% as non-functioning on forestland development plan implementation based on the selected and similar parameters for each PFM sites. Since the establishment of PFM sites in those five Districts the actors who were signed to give administrative, technical and material supports neglected the existence of established FUGs in their respective Districts. That is why most of the low performing PFM sites were highly at variance as they were neglected even by Kebele level.

3.2.6 Potential Assessment

Protection of forests and woodlands will be reinforced by promoting the sustainable harvesting of indigenous resources, to provide benefits and commercial opportunities to local communities. Government will consider incentives to promote sustainable management of these resources.” (Forestry, 1996). The forests demarcated and non-demarcated in Kafa Zone in general have plenty of diverse plant species of which their medical values were not assessed in this study.

Based on the assessment of the potential resources of the PFM sites, the FUGs dully stated that PFM sites of Decha, Gimbo, and Adiyo were known with forest coffee, honey, Wild Pepper (Spice), Cardamom as NTFPs with different potential of production.

Non-timber forest products (NTFPs) are biological resources of plant and animal origin, harvested from natural forests, manmade plantations, wooded land, farmlands, trees outside forests and or domesticated. NTFPs include fruits and berries, nuts, spices, medicinal plants, oils, gums, resins, honey, mushrooms, weaving and dying materials, aromatics, and recreation. These products are vital sources of income, nutrition and sustenance for many forest-based communities around the world (MoARD, 2013).

Based on FUGs estimation at each PFM sites the potential annual yield of forest under conservation has a plenty of NTFPs yields. For instance, forest coffee potential of Eta Hachecha is the leading of the Decha District

and other 16 PFM sites with an estimated annual harvest of 30,600kg and Wohabina Gori from the Gimbo District follows by 10,200kg.

On the other hand, the sites of Gesha and Saylem District have great potential of organic honey resources. Surprisingly the estimate honey potential of these Districts covers more than 50% of all 16PFM sites with an estimate of 30.47% or 15480kg and 26.81% or 13620kg from 4 PFM sites of Saylem and Gesha respectively. These indicated that from all PFM sites established by NABU, Eta Hachecha and Wogabina Gori gave an outstanding recognition on coffee estimation by FUGs. Whereas, forests in PFM sites of Halo Ganity, Hawurina Kukiri and Dadati were confirmed for their highest honey harvest even with traditional technologies.

Table: 3.5 The estimated potential NTFPs produces of 16 PFM sites

District	Kebele	FUG Name	State of estimated potential NTFPs produce in each PFM sites of five District				Remark
			Forest coffee (Kg)	Honey (kg)	Cardamoms (kg)	Wild Pepper (kg)	
Adiyo	Angiyo Kola	Eno	-	750	-	-	
	Mediwuta	Medwuta	-	100	-	-	
	Sharada	(Tura)	4000	300	200	-	
	Yecha	Yecha	900	5100	-	50	
	Total			4900 (8.4%)	6250 (12.3%)	200 (12.9%)	50(2.31%)
Decha	Boba Meliyo	Boba Meliyo	-	-	-	1410	
	Modiyo Gombera	Buna Shuniyo	2400	1190	500	-	
		Gora	-	3060	-	-	
	Yaha Hachecha	Eta Hachecha	30600	1000	-	60	
Total			33000(56.6%)	5250(10.33%)	500(32.3%)	1470 (68.1%)	
Gesha	Kicho	Shuno Yerina	-	4500	-	200	
	Didifa	Dadati	-	9120	-	100	
	Total			-	13620(26.8%)	0.00	300 (13.88%)
Gimbo	Ufudo	Kumiti	7650	1700	*	*	
	Hamany	Gacemo	765	2040	*	*	
		Wodito	1700	1360	*	*	
	Tega	Wohabina Gori	10200	5100	850	340	
Total			20315(34.89)	10200 20.08%	850 (54.8%)	340 (15.74%)	
Saylem	Tebela	Hawurinakukir	-	7500	-	-	
	Shenkora	Halo Ganity	-	7980	-	-	
	Total			-	15480(30.47%)	-	-
Grand total of each 16 sites			58215	50800	1550	2160	

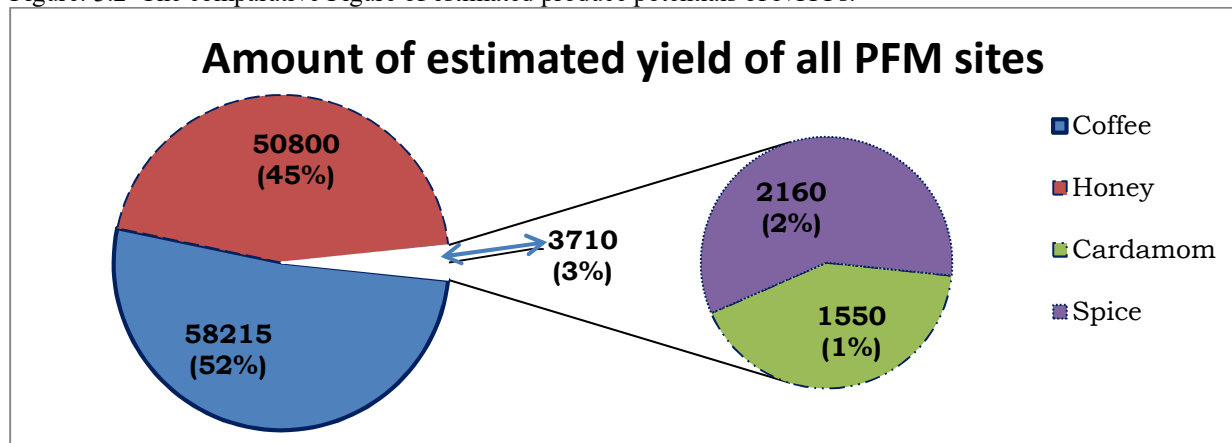
Source: - Field Survey * refers to the existing potential resources that was not estimated

As shown in the above table from the 16 PFM sites there is about 58215kg of forest coffee, 50,800kg of honey, 1550kg of Cardamom and 2160kg of Wild Pepper estimated produces; surprisingly each produces are organic and pure in nature and less estimated as the potential of all forest block was not well managed before the study.

As the forest was legalized also for resource use; they were using based on the existing potentials of NTFPs from the forest. Based on the potential resources the FUGs were planning to collect the produce without wasting in the future to safeguard the forest resource use sustainability.

The study result shows that in all PFM sites by produce potentials of NTFPs the annual yield of coffee comes first and honey comes at second position.

Figure: 3.2 The comparative Figure of estimated produce potentials of NTFPs.

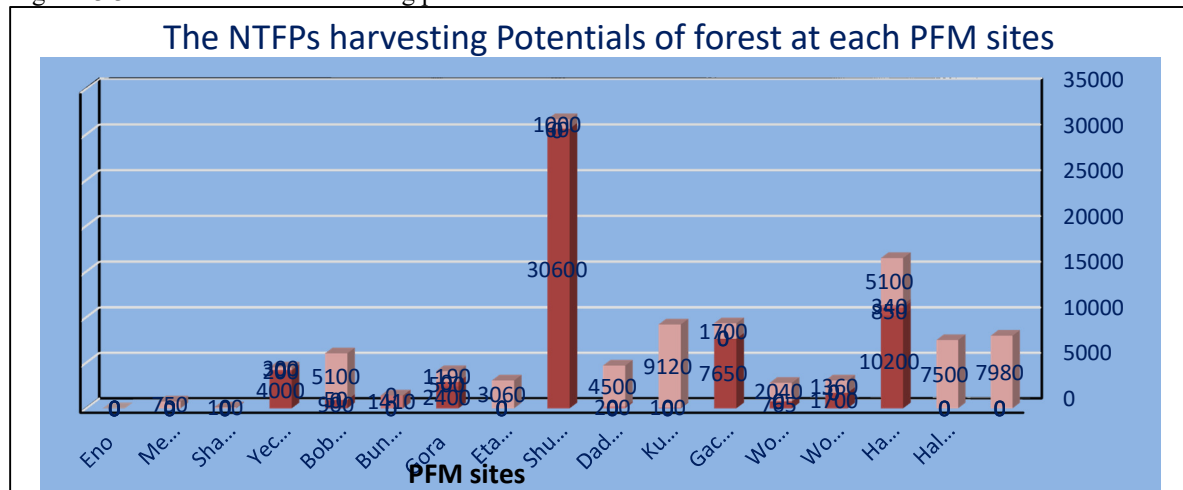


Source: Field Survey

As one can see from the figure above as the effort on marketability of both Cardamom and Spice was low, it was less estimated.

As shown in the table and above and figure hereunder with the cumulative harvest of coffee, honey, Cardamom and Spice Eta Hachecha taken the first position with the amount of 28.09% of the total cumulative produce, Wohabina Gori from Gimbo District comes at second with 14.63% of these NTFPs. With single NTFP (Honey), the PFM sites of Saylem District both Halo Ganity and Hawurina Kukiri get the largest proportion about 7.08% and 6.65% respectively.

Figure: 3.3. The estimated harvesting potential of NTFPs in each PFM sites.



Source:- Field Survey 2014

In general, with the above estimation the FUGs planned to harvest 112725Kg of NTFPs from the demarcated forest blocks of each PFM sites. To meet the targeted estimate they were planning preliminary tasks. Thus, the establishment of PFM site come with marketable resource potential identification from the forest blocks in particular and the cumulative shares of the District and zone. In general, it was not yet discovered and now it is great opportunity in relation to the high market values both in national and international market demand for their organic nature its price is sky rocketing.

3.2.7 Revenue from Different Sources

One of the main concerns and critiques for PFM as a sustainable solution for tackling deforestation and poverty is the financial implications it brings for FUGs (Winberg, June 2010).

The target of establishing PFM sites was primarily advancing the livelihoods of the societies in their local level via the natural resource management, finance the wedges for forestland management plan implementation, and improve the livelihood of the members. Such financial advance is expected so as confirm the purchasing power of rural household to be strong, free from unexpected economic doubt.

Forests are the source of a variety of foods that supplement and complement what rural households obtain from agriculture, and of a wide range of medicines and other products that contribute to health and hygiene. Supplies of wood fuels influence nutrition through their impact on the availability of cooked food, and ready accessibility can affect the time available for food production. Gathering and sale of NTFPs can provide income to households (MoARD, 2013).

As shown in the table below for any economic activity the visible change with livelihood depends on the saved income of 1,112,375ETB. Thus, with the establishment of PFM sites by FUGs level financial building got strong and shown differences based on the performances of FUGs and the opportunities. The source of income of each sites found from three directions as clearly shown in the table 3.6.

Table: 3.6 The amount of capital accumulation from different sources.

No	Sources of income	Amount of income (ETB)	%
1	Compensation fees	1,022,130	91.89
2	Sales of NTFPs from the Forest under protection	58,182	5.23
3	Membership and penalty fees	18,470	1.66
4	Sale of illegally collected forest products	13,593	1.22
Total		1,112,375	100

Source:- Survey 2014

1. Compensation fees:

As clearly indicated in the table above, the state of collecting income from the different directions about 1,112,375ETB could secure capital problem of 16 PFM sites. From these income sources as one can see from the data, about 91.89% income was from compensation fee and an opportunity for one site. Even though getting such compensation could not be by plan, it proves the legal use right of FUGs over their site. Thus, they can decide regarding their capital and total performance based on forest management plan.

Table: 3.8 The amount of income collected from compensation fees for two PFM sites.

No	Name of the PFM site	Source of income	Amount of income (ETB)	Remark
1	Buna Shuniyo	Composition from road construction	36,000	money compensated for seedling and forest deforested through road construction
		Fencing on boundary line	880	Paid for the members laborers
2	Gora	Compensation from road construction	985,250	i. 171,000 ETB is paid for planted seedlings ii. 814250 ETB paid for the existing forest resources
Total			1,022,130	

Source: - field Survey

This is one success of PFM site establishment related with the recognition of some opportunities by actors particularly the District administrative offices and ARDD of the District. Hence, the rural households benefited from new coming opportunity; which also could continue to other sites with built trust on the legal recognition of the forest use. As explained by FUGs committee of both PFM sites, the members agreed on construction of elementary school for their children by supplying 20,000EtBirr for local administrative body. Hence, they stressed that if FUGs were good every things shall be good. This indicates the interest of FUGs very high on infrastructural development in general and social services like schools, safe water, and road in particular in their plan of interest.

2. Sales of NTFPs from the Forest under Management:

The second and the most secure with potential for sustaining forest management plan is financing FUGs and PFM sites from the sales of NTFPs of the site. In PFM scheme effective use of potential NTFPs such as organic coffee, honey, spice and Cardamom; collected by both traditional users (25% of the harvest collected from individual members) and FUGs according to the respective PFM sites played its role in financial development among PFM sites. On this basis some PFM sites have shown some progress on their finance, could praise them in the future for better performances and potentials of the site indeed.

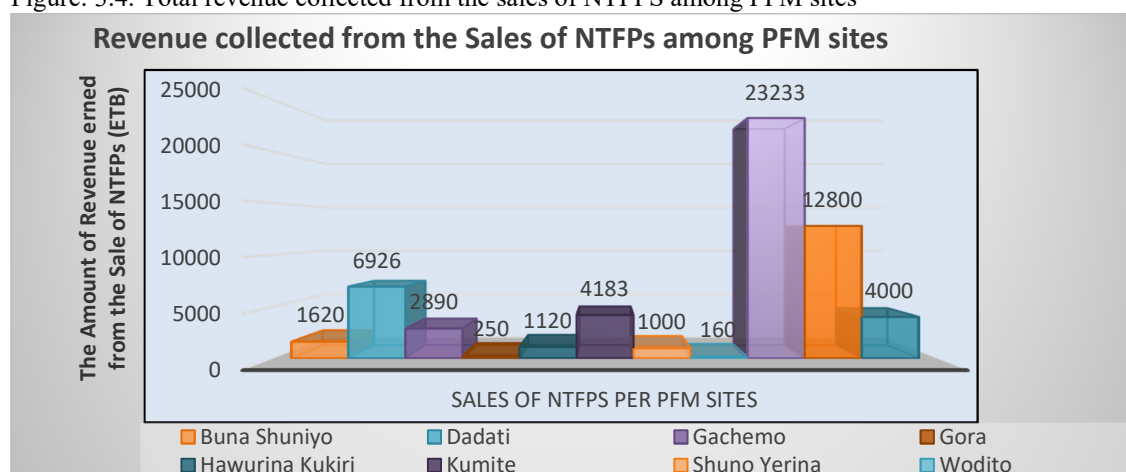
Table: 3.7 The amount of income among the PFM sites from the sale of NTFPs.

No	Name of the PFM	Source of income	Income (ETB)	Remark
1	Gachemo	Honey & coffee	2890	25% share from traditional users
2	Wodito	Forest coffee	160	
3	Kumite	Forest coffee	3838	
4	Wohabina Gori	Sale of lianas	345	Soled for non-FUGs by decision
		Forest Coffee	20,700	
		Honey	2260	
5	Buna Shuniyo	Cardamom	273	Sale from NTFPs collected by members from 5 blocks of the site. (Total in the FUGs capital = 23,233)
		Forest Coffee	1020	
6	Boba Meliyo	Sale of lianas	600	Coffee collected by mass members
		Spice	12,800	
7	Gora	Honey	250	25% share from traditional users
8	Shuno Yerina	Honey	1000	
9	Halo Ganiti	Honey	2000	
		Coffee seedling	2000	
10	Dadati	Honey	4745	Renting trees for traditional users (10ETB per a tree)
		Coffee	2181	Coffee seedlings sold for FUGs
11	HawurinaKukiri	Lianas*	1120	Sale and grant for non-members for house construction
12 - 15	Eno, Yecha Medwuta, & Tura	NTFPs were not managed by FUGs	-	The committee didn't coordinated the FUGs for financial capital development from the forest
16	Eta Hachecha	-	-	FUGs of this PFM site have no money on their account.
Total			58,182	

Source: Survey 2014

As shown above, those sites with good performance on NTFPs management with strong coordinated efforts challenged with poor market link for their produce. And some sites were not collecting plenty of NTFPs of their block due to fragmented performance of the members and illegal users entering in to their block; As a result members of these sites such as Eta Hachecha, Eno, Yecha, Sharada and Madewuta didn't collected revenue from NTFPs of their forest blocks. were irritated with their committees and stakeholders indeed. When we look into the specific income generating power of NTFPs of the PFM sites Wohabina Gori comes the first getting NTFPs based revenue (23,233 ETB¹).

Figure: 3.4. Total revenue collected from the sales of NTFPS among PFM sites

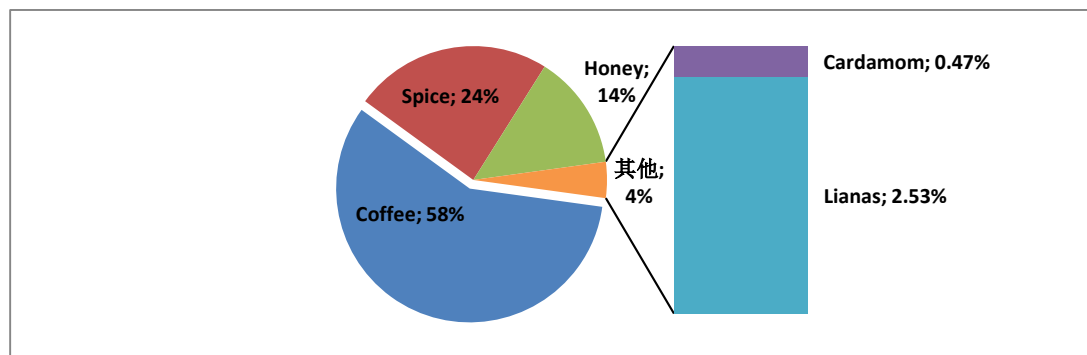


Source: Field Survey

As shown in the a figure bellow the largest proportion of revenues of NTFPs about 97% was collected from the sale of coffee (58%) and the least is from sales of Cardamom (0.47%).

Figure: 3.5 Proportion of Revenues collected from the sales of NTFPS of PFM sites

¹ ETB stands for Ethiopian Birr, the local currency. At the time of the field survey 1 ETB = 0.05USD



Source: Field Survey

This indicated that NTFPs naturally endowed was either wasted or consumed haphazardly for centuries and could be degraded with continued pressure was be managed under PFM scheme.

3. Membership and penalty fees

Each PFM sites have decisions according to the forest management plan based membership registrations and contribution, and penalty fees bylaw. This practice dictates us the level of management/ institutional strength on forest development and protection; and the trust by members to capacitate their PFM sites. Hence, FUGs of most PFM sites agreed to contribute 50Eth Birr as membership registration fee as initial finance for contingency costs of PFM scheme. As one can see from the table 3.10 below members who was not effectively participate on forest development plan penalized for the mean time and could be fired if the rate is proofed high based on the agreement plan. However, in almost all PFM sites absentees were in the state of penalty by money bylaw of the respective sites. .

Table: 3.10 Money from membership and penalty fees among PFM sites.

No	Name of the PFM	Source of income	Amount of income (ETB)	Remark
1	Halo Ganiti	Penalty fee	260	Absentees were penalized based on FMP
2	Dadati		3,000	
3	Gachemo		775	
4	Gora		190	
5	Shuno Yerina	Membership fee	700	The members contribute for registration by decision
6	Dadati		10555	
6	Eta Hachecha		3000	
Total			18,470	

Source:- Survey 2014

As shown in the above table about 47.74% of income was from membership payment during registration bylaw in both Buna Shuniyo and Eta Hachecha PFM sites. Whereas, the rest about 52.26% was from penalty charge on those members that failed to participate on both forest development and protection activities as indicated on the plan. On this basis from 16 PFM sites 4 sites such as Halo Ganiti, Dadati, Gachemo and Gora penalized their members in accordance to the bylaw. Dadati PFM site stands the first in collecting income from penalty and Hallo Ganity comes the least.

In relation to financial advancement with revenue from the three options, resulted for:

- ✓ The forest boundary is maintained and forest degradation in relation to free access and farmland expansion was controlled.
- ✓ FUGs recognized use right by the governmental organizations and developed sense of ownership on forest and its resources.
- ✓ The forest ecosystem maintenance has attention of FUGs for their livelihood.

4. Sale of illegally collected forest products

The other source of income success¹is from strengthened state of protection and related monitoring evaluation fees bylaw. In sites with such activity collecting about 13,593 ETB come possible; practically observed at 6 PFM sites of the 16 sites; where the largest rate of pressure on forest resources.

¹Income from sale of charcoal, wood and penalty fee was not taken as success, but the management/ power of the FUGs to control its illegal wastage and careless membership punishment bylaw taken as success.

Table: 3.9 The amount of money collected via controlling the illegal users among PFM sites.

No	Name of the PFM	Source of income	Amount of income (ETB)	Remark
1	Wodito	Wood sale and Charcoal	3,170	Collected from illegal users
2	Kumite		4,403	
3	Buna Shuniyo	Charcoal	150	
4	Dadati	Illegal users	4000	Collected penalty of the grazing animals
5	ShunoYerina	Illegal users	1750	
6	Hawurina Kukiri	Illegal users	120	
Total			13,593	

Source: Field Survey

From the collection, some FUGs particularly of in the state of great population pressure get 1.23% share of money of the total. This shows at what extent the legal recognition gave strength for FUGs even to penalize other households confidently, developed great sense of ownership. If this participation of community in forest protection with no exaggeration, half of the existing forest under protection either deforested by illegal users or converted as state farm of private investors.

3.2.8 Institutional Backups

The establishment of PFM sites is realized up on the institutional set-up and its legal recognition. Currently, in most PFM sites membership applications are coming and discussions are underway via general assembly meeting to accept or reject the application. The presence of the project sites, with all their challenges, taken as a success in this study. This is because of their existences in the area and some activities performed have changed the attitude of the community towards conserving and protecting the forest area. "The participation by the community and the planned community development activity could be to the best of the forest conservation if implemented properly. In addition, the support the project had by the local leadership is a success factor for its implementation and acceptance in the project areas." (Mekdes Girmaw, 2005).

3.2.9 Restoration of forest and microclimate

In most PFM sites the FUGs confirmed that they were protecting and managing the forest not only for the current use, but also based on the frequent advocacy and promotion from the NABU, for future climatic change, by confirming that the solution of the world climatic issues is only possible by maintaining the forest ecology and protecting it. During data collection, the committee members from Eno PFM site with the same mind-set described that, "since the establishment of PFM sites the forest ecology was highly healed-up and the air condition and streams were prolonged from its periodic die-up in their local condition". These conditions are the same in most sites as reports from most PFM sites come with the improvement of forest quality in terms of recovering biodiversity, higher seedling survival and improved water quality as another success with the establishment of PFM sites.

This indicates the FUGs got some awareness on global issues and participating for the solution by their part. This is global participation in general and will be the national asset for achieving the commitment to reduce carbon emission from deforestation. Thus, the establishment of PFM sites was not only for local value.

In addition to these in most PFM sites due to the restoration of forest ecology some endangered animals proved locally vanished were started emerging as confirmed by FUGs. This is to say the forest was now possibly protected the wildlife as it was in a state of protection by FUGs, no illegal hunters entrance within the forest.

For the establishment of PFM sites in these 16 sites, as clearly described in their respective forest management plan and forest agreement documents, all relevant actors had been signatories in light of ensuring their commitment to strengthen the functional role of sustainable forest management via sharing responsibilities. This commitment was demonstrated in some PFM sites. Those people who transgressed the boundary (at Wodito site) and others who illegally cut trees for timber accused to the court by the executive committee and penalized. This simply shows the active role transfer of forestland use plan and management practices and legal recognition from justice. This practice proved that the symbolized room for improved, sustainable and equitable forestland use and management.

From the supporting organization perspectives, the NABU project played its role. Before the establishment of the sites activities like awareness creating for local householders, selecting sites, facilitating participatory forest assessment, demarcating forest areas, forest user group identification, forest management plan and forest agreement document preparation, organization and, approval of management and facilitation of forest management agreement hand over made real the legal recognition of forest use right for the FUGs.

3.3 Limitations, Constraints, Challenges and Underlying Causes for Failures

After establishing these PFM sites for strengthening the institutional functionality NABU as one actor supported office construction materials, stationeries, stamps and other supplies.

On the other hand, irrespective of their establishment age some FUGs appear very weak and owning passive

executive committee leaders with limited actions in the overall institutional activity and committee role level.

3.3.1 Internal Challenges

The following key factors are extracted from the study and reflection meetings as internally deterring the implementation progress:

1. Most Executive implementation committee members and individual FUG members do have limited knowledge and understanding on the plan implementation mechanism. This is associated with the lack of previous experience in terms of detail plan preparation that is broken into different years and sub-space.
2. The weak and conflicting relationship among Executive implementation committee members (EICMs) prevented facilitation role to be played to coordinate and mobilize members into plan implementation and coherence among members. This has further been identified as a source of deviation to adhere byelaw and plan implementation responsibility if ordinary members.
3. In the above reason, under 2 also affected the implementation of periodic monitoring and evaluation within individual FUGs internally and hence obscured discussion on performance evaluation and lacks room for improvement.

These poor performances on plan implementation are exacerbated with poor documentations and reporting. Hence, the practical performances were less recognizable. Due to poor documentation the available potential of NTFPs produces were not well managed but used as sources of revenue for FUGs. In some PFM sites, development activities were underway but not well recorded and followed up. This induces bottlenecked conditions on the future forest related changes on the livelihood of FUGs.

3.3.1.1. Limitations in Relation to Forest Development

As the result of the above challenges, the FUGs commonly limited on forest protection to curb visible pressures from illegal users particularly Kumite, Gachemo, Wodito and Shuno Yerina, as the forest of these PFM sites were already at great pressure. As indicated in the table below with irregular protection there is absolute utilization based on the plan and beyond. This leads abuse of forest resources without replacing it, which is equivalent with the somewhat termed as illegal users or non-members; low role on forest development.

Table: 3.11 The main internal challenges among the PFM sites

S. No	Internal challenges	Underlying causes recognized as a factor for the challenges.	PFM sites	%
1	Plan related Problems	FUGs do not know what activities incorporated in their plan.	8	50
2	Plan implementation gap	Poor integration among the committee.	8	50
		Passiveness and low concern on the plan.	8	50
		Poor coordinating power of the committee.	6	37.5
3	Poor monitoring and Evaluation activities.	Executive committees were not monitoring and evaluating the plan implementation of PFM sites periodically.	16	100
		The executive committees have no better awareness on the techniques of monitoring and evaluation	16	100
5	Documentation problems	Poor capturing of documents and records of the FUGs profile.	16	100
4	Attention of FUGs on forest protection and utilization	The pressure from illegal users	4	25
		Low concern on forest development.	12	75
		Highest utilization rate including NTFPs and other forest related uses.	16	100
6	Corruptive state	Unexpected legalized utilization forced forest degradation	11	68.7
		Poor concern of members for forest development.	4	25
Total average			10	63

Source: Field Survey

At each PFM sites of five District about 2,058,170 plantations are expected based on the development plan, but only 2.72% or 99,460 seedlings were planted within the degraded areas of different sites due to a number of indicators as shown in table 3.11 above as reasons.

Table: 3.12 The status of forest development plan implementation

District	Kebele	PFM site	Area in ha	%	Expected no. of trees by number	%	No of trees planted	%
Gimbo	Ufiudo	Kumiti	386.4	14.4	495,000	47.06	0	0
	Tega	Wohabina Gori	693.26	25.83	50000	4.75	6100	12.2
	Hamany	Gacemo	368.84	46.03	320300	30.45	2006	0.63
		Wodito	1235.23	46.03	186600	17.74	1175	0.63
Total			2683.7	100	1,051,900	100.0	9281	0.88
Decha	Boba Maliyo	Boba Maliyo	742.52	26.33	56200	20.86	0	0
	ModiyoGombera	Gora	400.4	15.31	73500	27.28	10400	14.15
		Buna Shuniyo	688.5	26.33	66840	24.81	0	0
	Yaha Hachecha	Eta Hachecha	837.75	32.04	72850	27.04	23,000	31.57
Total			2669.1	100.0	269390	100	33,400	12.4
Adiyo	Angiyo kola	Eno	1138.9	30.14	11000	8.92	1500!	13.64
	Sharada	Tura	934	24.72	-	-	-	-
	Yecha	Yecha	919	24.32	91300	74.04	7750	8.5
	Mediwuta	Mediwuta	787	20.83	21000	17.03	-	-
Total			3778.8	100.0	123300	100	9350	1.22
Gesh a	Didifa	Dadati	247	35.49	96300	45.75	6400	6.65
	Kicho	Shuno Yerina	448.9	64.51	114180	54.25	4000	3.5
	Total		695.8	100.0	210480	100.0	10,400	4.94
Sayle m	Shenkora	Halo Ganiti	1259.7	73.65	266300	62.79	12,530	4.71
	Tebela	HawurinaKukiri	450.8	26.35	157800	37.21	35,000	22.29
	Total		1710.5	100.0	424100	100.0	47,530	11.21
Total Forest development in all sites			11537.9	100.0	2,058,170	100.0	99,460	2.72

Source: Survey 2014

!-represents planted by NABU.

As shown in the table 3.12 above the forest development is generally not equivalent with the plan and each FUGs were not playing their respective role. Generally, the forestland use plan implementation is low due to the above internal problem, which needs corrective measures from stakeholders for its better future.

3.3.1.2. Limitations in Relation to Forest Protection

Even though some level of forest protection is underway, the implementation compared to the original intention from the management plans of each FUGs show limitation. There is interruption and inconsistency in operation. The supervisory role of custodian committee and sub-block coordinators and regular evaluation of the executive implementation committee fail to run regularly. This was due to the problem of integration among the committee members and custody committee of the PFM sites with the existing non-rewarding/discouraging position of the actors from the District and the Kebele could be taken as the main reason for the implementation gap.

In some PFM sites, committee members feel tiresome and stopped conducting regular communication and coordinating roles. The case of Shuno Yerina PFM site of Gesha District, Hawurina Kukiri and Hallo Ganity of Saylem District is the living evidence due to low support from actors.

3.3.1.3. Limitations in Relation to Forest Utilization

As the study indicated that, there is inverse relationship between the state of forest utilization the forest carrying capacity and the development plan as well. Members tend not to adhere byelaws that require 25% timely contribution to the PFM institution from NTFP harvest.

The study confirmed that the members of most FUGs protect the forest for use right with legal recognition, as non-members have no right to do so. This is clearly associated with the utilization plan is going beyond the development plan in most PFM sites and the proportional expected replacement level is proven null. This is due the following possible factors/reasons.

- ✓ In Kumite PFM site, the pressure from illegal users limited their effort only on protecting the existing forest in addition to their low trust on forest development.
- ✓ The case of Boba Malliyo and Buna Shuniyo (Decha District) are due to disagreement among the committee members particularly passiveness of committee members and the pressure from illegal users in relation to farmland expansion That make them busy in boarder protection,
- ✓ The case of Yecha PFM site is related with low awareness and expecting the establishing organization and other actors to facilitate them than playing their respective role.

- ✓ The plan for searching other option than depending on naturally existing forest is at its infancy stage due to low awareness and integration.

3.3.2. External Challenges

The external challenges were gaps from actors expected to play their role. After the handing over ceremony there was low support, from differ actors; and less attentions has given for the forestland use and development plan, the state of the art of which the cases of all PFM sites are analogous. The plan dictates governmental organizations in their respective position as the main actors in which they are envisaged to plan and play their role for forest development by accelerating the FUGs, which is the great opportunity for the each Districts in particular and for the nation in general as natural forest development via PFM approach. However, it was not welcomed in practice. In the contrary overregulation or inappropriate regulation of small-scale forest enterprises has inhibited the good will of FUGs. The table 3.13 below shows the level of communication and cooperative efforts by different actors after the establishment of PFM sites in each District.

Table: 3.13 Level of communication and cooperation with different actors

Parameters		Description	Very high	High	Low	None
			>80%	50-80%	<50%	
Kebele Participation		Communication		4	10	2
		Administrative Support and Cooperation	2	3	4	7
		Supervision and evaluation	3	3	4	6
		Conflict resolution		5	2	9
		Support for use right recognition for FUGs.	2	5	6	3
Total			7 (8.75%)	20 (71.43%)	26 (32.5%)	27 (33.75%)
Agriculture office		Provide Technical support		1	4	11
		Material/input support			3	13
		Conflict resolution		1	3	12
		Encouragement		1	2	13
		Coordination		1	1	14
		Monitoring and evaluation based on the plan			2	14
		Meeting attendance			2	14
	Collecting reports and follow-ups			1	15	
Total			-	4(3.13%)	18(14.06%)	106(82.81%)
District Administration		Administrative Support and collaboration			1	15
		Monitoring and evaluation			1	15
		Conflict resolution		1	3	12
		Providing support on use right recognition for FUGs.	1	7	6	2
			1(1.56%)	8(12.5%)	11(17.18%)	44(68.75%)
Sum Total			8 (2.94%)	32 (11.76%)	55(20.22%)	187 (68.75%)

Source: - Field survey

As shown in the table 3.13 above, since the establishment of PFM sites those actors who signed the FMP agreement to give supports neglected the existence of established FUGs in their respective Districts. This shows the administrative gap among actors in implementing the plan signed legally for better forest development and improve the livelihood of the FUGs.

Gap in administrative, technical and material support on overall forest management from governmental organizations after the handing over ceremony; for instance the Decha District the forestry expert, possibly could solve their technical gap of the FUGs, was assigned at the Kebele level (in Boba Maliyo). In every PFM sites there was no capacity building trainings, periodical monitoring and evaluation from all actors based on the forest management plan.

The forest protection plan was challenged by the existence of illegal users for firewood, charcoal and timber production.

The pressure of adjacent villages and Kebele in using the forest resources due to low managing power of the committee. Illegal forest users (non-members) from adjacent villages of Wohabina Gori PFM site (Dusha, Gori and Kina blocks), Wodito forest from adjacent Wacha Kebele from Nuba villages in relation to tree plantation expansion and Gachemo forest (Chega Villages cutting tree at night) and uncontrolled pressure of animal grazing challenges the protection activity. In addition, there is/was violation of boundary by some farmers by adjacent

Kebele (Shocha) and the threat of wild fire to remove the sign of boundary in Gachemo site.

The financial regulation of the compensation fee for Gora PFM site lacks transparency and clarity (the letters communicated) leads the actors in the state of confusion. This by itself forced the adjacent FUGs into conflicts due to financial inequality in between them, reasonably for benefit share. In addition to this special support for Manja (direct dependent of the forest and forest products) members was demanding as alternative for securing illegal forest destruction but ignored by actors at any level. It is for the reason as these people were known with polygamy and each housewife was expected to serve her husband by her efforts including selling charcoal and fuel wood daily; as stated above the life of Manja people was highly integrated with forest including charcoal and fuel wood collection. This is now a great challenge at Kumite, Eno and Dadati PFM sites. One of the member of Kumite PFM sites and member of Manja clan states that, "we the Manja people are responsible for the erosion of forest at our site because of '*our life style' and the existing option*". He stressed by saying "most of us (Manja) get married for more than one women without using the forest we have nothing that can effectively support our family as the sales of Charcoal and fuel wood". These people are not highly interested to exert energy on settled agriculture as other local people, needs more time and energy. By calculating the marketability of the charcoal, they illegally cut trees and lead their life. Thus, the pressure on forest at all forest blocks was proven as comparatively economical compared to crop production for them. Particularly if they are settled in per-urban areas within walkable distances or along main roads this holds true.

3.4 Measures for Improved PFM Implementations, Managements and Awareness Creation

The establishment of PFM sites have a number of successes, taking corrective measures for unaccomplished tasks is unquestionable. Based on the responses of both FUGs and DAs feedback the following points needs to be taken as measures for improvements.

At PFM level, all FUGs participated the reflection workshop stated that they do not refer their respective management plan while implementing the tasks of PFM sites. The largest sections of plan was not/irregularly implemented due to knowledge gap on practical implementation. From the total PFM sites, about 25% decided to prepare detailed activity plan for better implementation of the plan.

The other point taken as measures for better performances of the PFM sites was the issues of NTFPs management. All PFM sites confirmed by saying "...due to knowledge gap and low market access we did not get benefitted from our forest." They also stressed the existence of ample marketable NTFPs as stated in previous discussion particularly potentials of NTFPs, in all forest fringes there is no forest with no marketable forest resources (forest coffee, forest honey, Spice and Cardamom).. In addition, Wild Chat (*Catha edulis*), Gesho (*Rhamnus Prinoides*) and other edible products grown naturally were less utilized. For the effective marketability of those resources the support from actors stated in the management plan is the most important at least for administering some technical and managerial issues; which was one of the bottle necked problem since the establishment of PFM sites in different Kebeles and Districts in particular and the Zone in general.

The rationale for supporting NTFP commercialization is often to improve the livelihoods of poor people, especially NTFP producers. By creating and capturing more value, it is hoped that poor people will gain from improved income and employment opportunities (MoARD, 2013).

During the reflection workshops, all PFM site member representatives mentioned that from this time onwards without difference they will try their best to manage those resources found in their respective forest blocks so as advance their institutional financial capital and bring livelihood improvement for members.

About 93.75% of the PFM sites concluded that their effort of forest use and management plan implementation weakness was directly related with institutional gap. Thus advancing institutional strength for better coordinated mass performances on plan implementation; including giving awareness for some members, clarifying confusing on some issues of PFM scheme and other measures are decisive. Thus, playing an important role in filling the gap at administrative part can bring mass participation of FUGs for the implementation of forest development plan and for their benefit as well. The establishment of institutional backup mechanism could be tested by its communication frequency and validity with respect to the plan. For such matter as about 87.5% PFM sites who were not strong in communication at FUGs level, except Dadati and Wohabina-gori, come with the value of communication both through committee based meetings and assembly meeting as written in the management plan.

¹ The Manja people in Kafa were known for their clan-based discrimination, they were termed as forest man; uses and lives adjacent to forest; far from sedentary agriculture. In addition, forest based life needs cooperation; get Polygamous family life.

Table: 3.14 The Responses of FUGs during reflection workshops conducted at District level

No	Responses from FUGs	Rate	%
1	Implementing the plan (development, protection and utilization).	16	100
2	Preparing activity plan	4	25
3	Advancing forest protection strategies as the strategy was not effective in controlling illegal users	16	100
4	Evaluating the existing weak and strong side of FUGs and challenging the weak side	12	75
5	Contacting with responsible actors actively for some administrative issues	15	93.75
6	Effective management of NTFPs and other potentials of the forest block and advancing the financial capital based on the plan	16	100
7	Using modern equipment to advance the quality and quantity of NTFPs for better marketability, using the existing NTFPs without wasting and reducing the existing utilization rate	12	75
8	Advancing institutional strength and members use right recognition and responsibility after putting signature.	15	93.75
9	Conducting continues communication (meetings and assembly) based on plan	14	87.5
10	Getting some basic supports like administrative, technical and material supports from actors, nursery material supports.	16	100

Source: Field Survey

As shown in the table, all the responses from FUGs indicates the need of trainings and workshops. Because, during detail planning and handing over, all members agreed on the points to take responsibility of performing all the details of the plan. Things get complex and challenging at practical and routine implementation stage. During the reflection, participants complained on expected supports from the government agents at local level. In addition, hammered the gaps of FUGs committee passiveness such as periodic performances reporting irregularities and poor in documentation and reporting.

The other responsible agents who were the representatives of the WoARDD were the Development Agents (DAs) except from Gimbo District was invited on reflection workshops. The evaluator come up with some respective questions¹ for them; entertained as follows (see table.3.15). Table: 3.15 The Responses of Development Agents on selected questions during Reflection Workshops at District centers of Each PFM sites.

No	Responses from Das	Rate	%
1	Making the members to be active participant on forest development and protection as utilization	4	80
2	Based on the forest management plan; preparing detailed and annual plan and implementing it	2	40
3	Cooperatively playing our role of monitoring and evaluation, owing technical support on forest development, protection and utilization.	3	60
4	Making the FUGs beneficiary by protecting the forest for the coming generation	4	80
5	Playing our role for economical harvesting of the NTFPs	3	60
6	Jointly control illegal users	2	40
7	Training and awareness raising (NABU)	4	80

Source:- field Survey

As shown in the table above about 80% of DAs (all DAs²) agreed to participate in the forest development activity with full effort in making the members of the FUGs to be active participant without reservation, as agents. About 40% confirmed that the failures of the PFM sites plan implementation related with lack of activity plan from the actor's side and agreed to prepare detailed annual and season's activity plan compatible with FMP.

Chapter Four

Conclusion and Recommendations

In forestland use and management practices, PFM scheme introduced complementary mechanism with shared responsibilities between governmental organizations and FUGs. Accordingly, both parties developed forestland use and management plan within PFM sites established by NABU in Kafa Biosphere Reserve. The main theme of the study focused on examine Forestland use plan and management scheme at PFM sites Established within Kafa Biosphere Reserve, Southwest Ethiopia”.

Accordingly, the study concluded that the forestland use and management scheme established at 16 PFM sites in five Districts and 14 Kebeles were assessed; about 11538.91ha of forest with plenty of NTFPs was legally

¹ As the representative development agent of ARDD of your District what is expected from you to back up the whole forest development plan implementation?

² 80% DAs refers to all presented DAs as part of 100% or Gimbo District (20%) was not included.

recognized for FUGs based on FMP. About 7948 members got recognition with forestland use and management plan through signing agreements without any discrimination by age, sex, religion and clan. As a result, since the establishment of PFM sites, about 99,460 indigenous tree seedlings planted and all forest coverage at PFM schemes, were protected from degradation with the efforts of FUGs.

The study ensured the importance of the PFM for the FUGs and for the ecology. The signs of some good activities done and benefits obtained, the potentiality of the forests for more products harvesting indicated the forest resource to improve the life of many rural people. The establishment of PFM in these sites believed to bring some sort of group concern, action and power to sustain the resource use. As seen from the discussions above it is concludable that the performance is insufficient compared to the management plan. The primary reasons as detailed above can be summarized as institutional, support and implementation associated limitations.

Hence, for effective implementation FMP providing planned and selective institutional strengthening support is highly demanding. In addition, arranging documentation, recording and reporting that can support the establishment of schedule for different activities i.e., forest patrolling, utilization, development and periodic monitoring and evaluation and Provide livelihood related support and other supplies that target marginalized category

Moreover, such planned practical activities seeks actors to Create strong link and cooperation with local government institutions. Thus, coordinated efforts that could lead for mobilizing all stakeholders for their participation and support is highly demanding.

References

- Abate, Y. (2005). *Community Values and Natural Resource management the case of indegenous settles in Kaffa Zone*. Addis Ababa, Ethiopia.
- Ameha, A. (2011). *Performance of old PFM sites in Adaba-Dodola, Chilmo, Borana and Bonga sites*.
- Ayana et al. (2015). Performance of participatory forest management in Ethiopia:institutional arrangement versus local practices. *Institute of Local Government Studies, University of Birmingham*.
- EMPAFORM. (2006). *PARTICIPATORY FOREST MANAGEMENT IN UGANDA; Key implementation concerns and recommendations for policy actions*. EMPAFORM Policy Briefing Paper No. 1,.
- GOBEZE et al. (2009). Participatory forest management and its impacts on livelihoods and forest status: the case of Bonga forest in Ethiopia. *International Forestry Review Vol.11(3)*, 346.
- Mulugeta et al. (2015). Making forest conservation benefit local coMMunities: participatory forest ManageMent in Ethiopia. *END Hunger; FARM AFRICA*, 7.
- PFM-WG. (2010). *National Participatory Forest Management Working Group (PFM-WG) Workshop (Tentative Schedule)*. Adama.
- Proclamation. (2007). Forest Development, Conservation and Utilization. *Proclamation No.542/2007*, (p. 3812). Addis Ababa.
- Tadesse et al. (2013). Explaining the Determinants of Community Based Forest Management:Evidence from Alamata, Ethiopia. *International Journal of Community Development*, 64.
- UNESCO. (2008). *UNESCO Biosphere Reserves: A tool for conservation and development in Ethiopia; Stakeholders' Workshop on Legal Aspects*. Addis Abeba: GTZ-SUN and the Ministry of Science and Technology.
- Weldemariam et al. (2016). Avifauna Diversity in Kafa Biosphere Reserve: Knowledge and Perception of Villagers in Southwest Ethiopia. *World Applied Sciences Journal*, 1222.
- Winberg. (2010). *Participatory Forest Management in Ethiopia, Practices and Experiences*. Addis Ababa, Ethiopia: Food and Agriculture Organization Sub Regional Office for Eastern Africa (SFE).
- Winberg, E. (2011). *Participatory Forest Management in Ethiopia,Practices and Experiences*. Addis Ababa: FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS.

Bibliography

- Addis Ababa University and Randall Bluffstone, Portland State University, USA. (2007, Sept. 18-19). Policies to Increase Forest Coverage in Ethiopia. *Proceedings of a Policy Workshop*. Addis Ababa, Ethiopia, Ethiopia: Minstry of Agriculture and Rural Development of Ethiopia.
- Aklilu Ameha. (2011, January). Performance of old PFM sites in Adaba-Dodola,Chilmo, Borana and Bonga sites. *Final report*. Ethiopia.
- Andargachew, A. (2009, March 5-6). Draft-proceedings from the PFM-Working group Meeting . Jimma, Ethiopia: MoARD and NTFP-PFM,2009.
- Befikadu Melesse. (2010, June). Significance, Current Status and Future Prospects of Wild Coffee Production in Gimbo District, Kafa Zone (SW Ethiopia); *MA thesis*. Addis Ababa, E thiopia: Addis Ababa University.
- Demel Teketay and Tesfaye Bekele. (2005, Oct.). Indicators and Tools for Restoration and Sustainable Management of Forests in East Africa. Ethiopia: ICA.

- Forestry, D. o. (1996). Participatory Forest Management Policy and Practice in South Africa. *White Paper on Sustainable Forest Development, 1996* . South Africa, South Africa: Ministry of Forest.
- Girmaw, M. (2005, July). Assessment of Institution's Capacity Involved in the Conservation of Coffea Arabica in the Montane Rainforests of Southwest Ethiopia. *MA.Thesis* . Addis Ababa, Ethiopia: Addis Ababa University.
- IEG, W. B. (2013, Feb. 5). Managing Forest Resources for Sustainable Development. *An Evaluation of World Bank Group Experience* . IEG World bank/IFC/MIGA.
- KFCFCU. (2013, Dec.). ICI_Ethiopia Participatory Forest Management (PFM) Project Report. Bonga, Ethiopia.
- MoARD. (2013, Nov.). NON-TIMBER FOREST PRODUCTS DEVELOPMENT TRAINING MANUALS SERIES. Addis Ababa, Ethiopia: Ministry of Agriculture Natural Resource Management Directorate.
- MoARD, F. a. (n.d.). Policy, Strategy and Proclamation on Forest Development, Conservation and Utilization. Ethiopia, Ethiopia: Central Printing press.
- Nigussei Birmegei and Zelalem Temesgen. (2012, August). GIZ - ECBP PPP- of Wild coffee Project. *Draft Report on the " FOREST LOSS AND PARTICIPATORY FOREST MANAGING SYSTEM* . Ethiopia.
- T. GOBEZE, M. BEKELE, M. LEMENIH and H. KASSA. (2009). Participatory forest management and its impacts on livelihoods and forest status: the case of Bonga forest in Ethiopia. *International Forestry Review Vol. II, Center for International Forestry Research, Forests and Livelihoods Program, Ethiopia Office, Addis Ababa, 5689, Ethiopia* . Ethiopia: Wondo Genet College of Forestry and Natural Resources, Shashamane, 128, Ethiopia .
- T. GOBEZE, M. BEKELE, M. LEMENIH and H. KASSA. (2009). Participatory forest management and its impacts on livelihoods and forest status: the case of Bonga forest in Ethiopia. *International Forestry Review Vol, II(3)* . Shashamane, Ethiopia: Center for International Forestry Research.
- Winberg, E. (2010, June). Participatory Forest Management in Ethiopia, Practices and Experiences. *Food and Agriculture Organization Sub Regional Office for Eastern Africa (SFE)*, . Addis Ababa, Ethiopia: FAO.
- Yonas, A. (2005, July). Community values and Natural Resource Management. *MA thesis* . Addis Ababa, Ethiopia: Addis Ababa University.