FARM Africa and SOS Sahel International/ UK Participatory Forest Management Programme (PFMP)

"TRANSFORMING LIVES & LANDSCAPES": LINKING AGROFORESTY AND NTFPs FARMERS TO THE MARKET (PROJECT PROFILE)

The Goal of PFMP is to ensure environmental sustainability through Community based natural resource management systems

TAM

AGRIBUSINESS

A PRIVATE RURAL DEVELOPMENT & AGRICULTURAL EXTENSION AGENCY

A Public-Private-Rural Community partnership

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1. INTRODUCTION & BACKGROUND

1.2 Introduction

FARM Africa/SOS Sahel (UK) requested the services of TAM Agribusiness Plc. (with Offices in Addis Ababa and Nairobi and field programs in Ethiopia) to under take the task of designing and developing two inter-related major programs for the Bonga Forest site Project impact woredas and Bonga town (see location map). The woredas are Gimbo, Manjiyo, Chena, Decha and Tello (see location map of woredas). The two major programs of focus are:

- *Design plans for the development/establishment/ improvement of agroforestry systems, and;*
- *Enhanced Non-Timber Forest Products*

FARM Africa has commissioned several field assessment studies and Project review *vis-à-vis* the first Phase, the design of Phase II (current Phase) and the technical design of the present phase which includes reproductive health. The current Project is titled, "Bonga Integrated Participatory Forest Management and Reproductive Health/Phase II".

The identified and proposed agroforestry-based land use and technologies, according to the TOR are:

- *Agroforestry: Forest Farming in Bonga Region*
- *Agroforestry for SWC, Fodder and Wood Production on slopping lands, and;*
- *Agroforestry: Fruit Production by Smallholder Farmers in Bonga Region*
- *Agroforestry: Home gardens*

The second, and equally important program area, according to the TOR is the effective utilization of NTFPs and includes the following NFTPs, namely; Mushrooms, Medicinal Trees, Forest (false) Cardamom, Long Pepper, and, Bamboo. Some amendment to this list was proposed by TAM Agribusiness in its TECHNICAL PROPOSAL which as accepted by FARM Africa/SOS Sahel. Thus, the NTFP program area included:

- Forest Rehabilitation & Natural Coffee Production Enhancement and Trade
- Commercialization of Bamboo, Reeds and Palm in Bonga Region
- Commercializing Medicinal Trees for Improved Livelihoods in Bonga Region
- Commercializing Spice Growing and Trade in Bonga Region and;
- Linking Industrial Tea and Essential Oils Production and Processing with out grower *schemes and Contract farming in Bonga Region*

1.2 Background

Previous field surveys and studies have identified the potential role of agroforestry-based land use system for the Bonga Forest zone (site) which is within the Omo-Gibe basin, Outside the Qolla AEZ, the Woina Dega and Dega AEZs which make up more than 70 % of the land mass of the Kaffa Administrative zone have (a) high rainfall/ high relative humidity and long growing period (almost 10 months), (b) warm temperatures for annual and perennial crops and trees, (c) well-drained but highly slopping local topography drained by many rivers and streams.

Experts and project staff (FARM Africa and SuPACK, etc.) are in agreement on the importance of maintaining the forest ecosystem to support and make it possible for NTFPs, especially forest coffee, to continue playing important role in the livelihood of the local inhabitants, the local and national economy. Both timber/wood and non-timber forest products are important. It is envisioned that both in the short and the long run, NTFPs will have significant economic role in the livelihood of the population. NTFPs can exist and be productive only if the habitat (forest ecology) continues to exist. People can also be food secure if incomes derived from NTFPs and agroforestry increase and local markets develop.

Recent marketing experience of (wild) forest coffee from the Bonga forest site clearly shows that wild and organic products command high price in the global market. The Bonga forest site and the southwestern Ethiopian highlands can boast of these two features. In the same category, products from Bonga include; (a) Wild and organic gesho (leaves and twigs used in the world famous Bonga Tej and the local bear (*tela*), (b) Wild and organic cardamom, (c) Wild and organic long pepper, (d) Wild Passion fruit, (e) Wild honey, and (f) Civet cat (zibad production)

Bonga is also famous for its special sheep breed, the Bonga sheep that is grazed in the forest and drinks the pure and clean spring waters from the natural forest ecosystem. The apparent genetic variability that exists in these plants and sheep

bread can be selected but grown (in the case of the wild plants) in the same natural forest environment. It is therefore imperative that all wild and organically produced Bonga products listed above and others covered in this study be labeled and be marketed as such to make sure that the prices reflect this state and condition of production.

The preservation of the forest ecosystem naturally or through agroforestry systems is therefore to ensure that the more lucrative NTFPs continue to come from this environment which at the same time ensures that genetic biodiversity is maintained *in situ*.

1.3 Objectives of the Study

The main purpose and objective of the consultancy was to identify and analyze the development potential of these two sub-sectors (agroforestry and NTFPs) and design a development plan and pathway where the community-local government partnership will implement development activities. Therefore, the overall objective of the study was two-fold, namely:

- *To develop a plan for appropriate agroforestry-driven interventions based on community participation and local government support, and;*
- *To identify viable NTFPs and develop a plan for an entrepreneurial production-processing-market chain for major NTFPs.*

These two objectives, when fully implemented, should lead to and result in the following:

- *Improved livelihoods of the target community,*
- *Well-rehabilitated, protected and conserved forests and natural resources,*
- *Well-managed community based INRM, and;*
- *Institutionalized community-local government development partnership*

Therefore, the specific objectives of the study and assignment included:

- *Obtain information on the local knowledge on current and potential uses of the forest in relation to livelihoods,*
- *Assess local institutional arrangements that support sustainable forest utilization and management practices*

- *Identify and analyze incentives schemes that promote and enhance sustainable forest utilization and management, and;*
- *Assess gender balance with regard to utilization and management of forest resources*

2. STUDY METHODOLOGY& TOOLS USED

2.1 Secondary Data and Information Gathering & Analysis

The relevant secondary information and data was gathered from various institutions including the Federal, Regional, Zonal and Woreda sector offices (agriculture, forestry, natural resources, planning and finance, rural credits, investment office, women development office, etc.) as well as Development Agents and PA Administration. Documents from NGOs active in the study area were also consulted and reviewed. Data and information from research and educational institutions were also reviewed.

More importantly, FARM Africa/SOS Sahel and SuPACK generated studies and project documents were extensively studied and reviewed as well as sector and sub-sector development master plans and special development project documents. Attempts have also been made to consult data and project proposals (with little success) from the private sector active in the area, including coffee and NTPFs commercial farmers. The more important sources (people and institutions) of the secondary information is contained in Appendix 2. Libraries and Document centers of ICRAF, ILRI, IBCR, and FRC(EARO) have been consulted. The list of key references is contained in Appendix 1.

2.1.1. Primary Data

Primary data was generated through the use of interview techniques as applicable in each case, ie., individual interviews, group interviews and discussion meetings. The following were the main information techniques used, namely;

- *One to one interviews*
- *Community Group Discussion (CGD),*
- *Key informant Discussion*
- *Gender Analysis*
- *Direct observation, and;*
- *Focus Group Discussion (FGD)*

The field study focused on the five (5) districts making up the Bonga

Forest site and are adjoining woredas. These are also the FARM Africa/SOS Sahel impact woredas. Major urban centers including Bonga and Wush Wush towns have also been included in the problem and issue identification and analysis. The Gimbo woreda has received more focus as it is the most affected woreda and central to the planned development agenda. Bonga town is also found in this woreda. Appendix ---- gives the list of individuals and institutions visited, consulted and met for group discussions.

2.2 International Experience and Relevant Information

The global work of ICRAF (The World Agroforestry Center), IITA and other CGIAR Centers, outside Ethiopia, but in eco-regions has been extensively consulted and some adopted here. The field-work and data from the Eastern Africa Highlands have been found directly applicable especially for the SWC /fodder and Fuel wood Project document as well as for the Home Gardens Program. The Bamboo document has benefited from the extensive IDRC-supported Research and Development in Kenya and Southeast Asia. Similarly, the documents on Fruit Production and Medicinal Trees *(Prunus Africana)* have benefited from the field support work by RELMA (now part of ICRAF). Some members of the TAM Consultancy have direct field experience on agroforestry research and development in sub-Saharan Africa, Southeast Asia and Central/south America. This has been brought to bear on the study and the investment profiles.

3. MAIN RESULTS & FINDINGS: SUBSECTOR ANALYSIS

3.1 Main Outputs

The main outputs of the assignment includes:

- *Main Technical Report (this Report),*
- *Technical & Strategic Plan Reports (4 on Agoforestry and 5 on NTFPs)*
- *Field Guides (for use in implementation of the 9 Strategic Plans (2 above), namely;*
  - *Perennial Sesbanias in Maize Farming*
  - *Growing and Managing Bamboo*

    - *The Omo tree (Prunus Africana): Its domestication & Potential Trade,*
    - *Lemongrass: Production and Use*
- *Technical Report of the Study Results (optional for submission to FARM Africa)*

3.1.1. Development through Improvement of Agroforestry

3.1.2. Agroforestry: Home gardens (Improved Homestead Multi-story Gardening)

Main Findings

Settlements (homesteads) in the Bonga Region, as in much of the south and southwestern highlands, are typically dispersed type where each dwelling home is devoted to perennial food crops including trees. The outfield which is adjacent to each home is devoted to cereal farming and livestock production. Each household has an average of 7 people. The land holding per household, made up of home site and the outfield ranges from 2.5 to 4 ha

Both the home site and the farm outline (punditry) provide large perimeter area where economically more useful trees and woody perennials for food, feed, fuel wood and medicine can be established and managed. At present only the homestead has a mixture of dead and live fence. But the woody species used are practically not economically useful, being largely planted with *Euphorbia spp, Acalyoha, Erytrina spp., Datura sp., Caesalpina spinosa, Dracaenea spp, Vernonia spp.,etc*.

The compound itself leaves much room for incorporating more woody perennials and high value trees. Only coffee and sugarcane and some banana and papaya are regularly found in these compounds in spatial or zonal arrangement. The vertical arrangement (multistory) and structure is not well developed, which, if accomplished, will result in more production and diversified products through out the year.

Conclusion and Recommendation

Based on the above finding (elaborated in the Technical Report on the subject), it is concluded that the Home gardens are the priority areas for increased and diversified food, feed, medicine, spice and wood production by rationalizing slope and internal structure of the homestead. An attempt should therefore be made to establish a multi-story garden made up of (a) root and tuber crops, spices and herbs at the

ground level, (b) the first story devoted to coffee and associated small (dwarf) fruit trees ie, dwarf banana, papaya, etc., (c) second story devoted for medium sized high value and economic trees and woody perennials, and (d) the third story devoted to tall trees such as *Prunus Africana, Hagen Abyssinia, Fagaropsis angolenis,* etc.

3.1.3. Forest Farming (balanced tree crop-cereal interaction)

Main Findings

The rate of rural population increase is high. This is exemplified by the fact that 45 % of the population is under 15 years of age. This population increase is being fueled by settlement programs of the government by bringing large number of households from other regions. For instance, the Gimbo woreda had received over 60,000 settlers at Yabekecha which now shows an extreme case of deforestation and dominance of cereal (mostly maize and pulse based) farming. This population increase with a corresponding increase in agriculture has been at the expense of clearing.

While the traditional land use system has been Forest-coffee and other NTFPs based, referred as Forest zone in land use maps, three other land use systems now dominate the landscape, namely; (a) Forest/coffee/cereal based, referred as Transition zone in the Woina Dega, (b) Enset/cereal based land use, also Transition zone in the Dega zone, and (c) Cereal/pulse based land use, the deforested zone in both the Dega and woina Dega zone. Some 10,000 ha of land has now been handed over to private investors for coffee, tea and other cash crops farming. Many of these commercial companies are engaged in cereal crops farming to supply their large army of workers on the plantations and factories and processing plants.

The extent of cultivation of annual crops in terms of land allocation is on the increase each year. This surge of growing annual food crops, especially cereal crops is encouraged by the government's food security and food self-sufficiency policy and all government extension service and agricultural inputs are directed to this group only with a total neglect to the traditional crops such as root and tuber crops. The latter group are ecologically more suitable and do not degrade the land as the tradition includes the use of farm manure and compost to maintain productivity and high yields. Besides, these traditional crops are not seasonal in their harvesting or

planting and thus keep the ground covered and less disturbed during planting and harvesting. These group of semi-annual and perennial crops include taro, enset, taro, sugar cane, and cassava which all provide adequate ground cover against erosion and moisture loss.

Clear-felling of trees and deforesting the land and planting cereal crops is ecologically unsuited, considering that the slopes are extreme, soils are highly erodable vis-à-vis the high rainfall. The nearly 10-month growing season prevalent in the region does not even allow maize and bean crops to dry properly. The need to slow down and reverse this trend is clearly evident everywhere in the region. Cereal agriculture does not enrich one but does more harm to the ecology. As a result, the socio-economic condition of he population continues to decline along with land productivity and environmental degradation. Biodiversity losses are high as well.

Conclusion & Recommendation

Based on the finding of the study, forest Farming has been recommended, through the use of improved tree and woody perennial fallow system both to regenerate productivity in existing maize farming system and to maintain and enhance fertility in new farms, These tree fallow species including perennial sustains and *Calliandra* are relay cropped during the shilshela of the newly planted maize crop. The woody perennial is also planted in alleys or in terrces to also act as soil and water conservation biological barriers.

The Forest farming system described for the maize system will result in (a) maize yield enhancement and stabilized yields, (b) will prevent soil and water erosion, (c) will control weed and conserve soil moisture, and (d) will give other sources of income and products including feed resources, fuel wood and construction wood. Thus, the service role to the forest is attained through these planted trees within the farming landscape and the system will also take out or reduce the drudgery of traditional farming as need for field Plowing an weeding is reduced if not eliminated

A technical field manual and a technical description of the system and practice have been prepared and appended to the Technical & Strategic Plan Document.

3.1.4. Agroforestry for Soil & Water conservation (SWC), fodder and Wood Production in slopping lands

Main Findings

The natural topography of the Bonga region is highly slopping ranging from 10% to over 60%. Because of the high rainfall (over 1500 mm/yr), the soils are highly leached and much of the soil fertility is tied up in the top 20 cm and maintained through nutrient recycling between the soil and the living forest vegetation. The removal of the forest cover and general vegetation therefore, breaches this cyclic process and leads to rapid decline in soil fertility.

Thus, while these soils are maintained under forest, organic matter recycling continues. However, with forest clearing for agriculture, two things happen, namely, (a) soil organic matter (SOM) is lost rapidly (greatly aided by the high rainfall run-off), and (b) soil erosion sets in, leading to the loss of the top soil which contains most of the soil fertility. Indeed, studies by SCRP have shown that organic matter levels decline to about 30% following forest clearing within 4 to 15 years resulting in crop yields decline at the rate of 19% annually, stabilizing after 12 to 15 years at 35% of the original level.

Unfortunately, the positive elements of climate and seemingly good topography (undulating) and the luxuriant natural vegetation under natural forests, mask the major problems, ie., rapid soil fertility decline and soil erosion as well as loss of biodiversity. The Omo-Gibe Development Plan rightly concluded that " failure to manage these soils properly may lead to rapid and possibly irreversible soil degradation, leading in the future, to much lower crop production and non-sustainability". Our field observation confirms this where maize yields (the major crop) in the Bonga and the Kafficho Zone in general, are the lowest in the region. Farmers are equally aware of this fact. But farmers continue to clear more land and bring under cultivation to establish more secure land tenure in the face of increasing trend of settlements and allocation of large tracts of lands to commercial concerns.

The Bonga region is already and area where poverty and landlessness has set in. Recent studies show that in the Kafficho-Sheka zone, the area under forest is only 29.% while area under cultivation is 55.9%. Thus in the face of this cereal agriculture expansion, soil-conservation based land use is needed. This is offered by agroforestry

for soil and water conservation technology fully described in the Project Profile Document and summarized below.

Conclusion & Recommendation

Government policy of food security and settlement programs are encouraging agricultural expansion, especially cereal farming. The Development Master Plan for the Kaffa Zone (Kafficho) had identified Agroforestry as a sustainable land use technology, under the Gibe Development Authority over a decade ago. The need for soil conservation practices in italically described for reasons stated above the agricultural production is specified. FARM Africa has also identified Soil and Water Conservation, within Agroforestry Systems of land use as one area of intervention to make agriculture, especially cereal farming productive and sustainable.

Field experiences in Ethiopia and elsewhere, regarding adoption of Soil and Water Conservation Technologies, clearly show that farmers do not readily adopt such technologies and measures. Therefore, additional economical and service roles must accompany SWC measures. The suggested program therefore has fodder and fuel wood production as additional out puts. This program is fully detailed and annexes have been prepared to assist implementation of the program of SWC, FODDER AND FUELOOD Production.

3.1.5. Agroforestry: Fruit Production

Main Findings

The Bonga Region has experienced the introduction of fruit tree growing by religious Missions operating in the area (ie, Swedish Mission, Catholic, etc.) during the last 40 years. The fruits introduced and being grown by farmers, mostly in the homesteads, listed in the relative economic importance and extent of cultivation are: (1) Banana, (2) Avocado, (3) Papaya, (4) Guava, (5) Mango, (6) Gishta (Custard apple) and (7) Green apple (kasmir).

Both research and government extension and technical services in fruit production and marketing (including value adding) are inadequate or are absent. One does not know if the present species and varieties/cultivars are indeed the best. Certainly, in the case of avocado and mango, the present varieties can be replaced with the available planting material fro commercial sources, both in the country and out side

the country. There is even more room, especially in the Dega zone to introduce mew fruit trees and in the lower elevations of the Woina Dega zone too.

Fruit tree husbandry and management is not well established as are seed and nursery techniques. The participation of the private sector in fruit production, processing and marketing is non-existent. Some of the new large commercial coffee farms are beginning to produce the dwarf (Cavendish) banana for the market to off-set establishment costs which is trucked out of the area of production to the market in Jimma city.

Climatic conditions (soils, topography and rainfall) are excellent to grow diverse type of fruit trees in the Bonga Region. The dispersed homesteads are the first area to concentrate production of fruit for home consumption and for the market.

Conclusion & Recommendation

Fruit production under agroforestry system has been recommended and a Technical and Strategic Plan document has been prepared for FARM Africa/SOS Sahel and partners to implement. The first entry point is to develop a strong program of tree germplasm and nursery for use to train and produce planting material similar to the Improved coffee nurseries that the private sector and the government assisted by NGOs is doing. This need to be followed by a strong program of capacity building in the communities and in the technical departments of the government starting at the PA level.

The objective if the fruit production program must be to improve quality and increase production. The role of research and educational institutions is essential of the region is to achieve significant advance in fruit production both for the local, regional and international markets.

3.1.6. Forest Rehabilitation and Natural Coffee Production

Main Findings

Coffee is an important commodity in the eyes of the local government and local communities. All of the coffee coming into the market and exported out of the region and eventually reaching the world market is forest coffee which is both wild

and organically grown. Forest coffee production is restricted to the woina Dega zone.

The state of forest coffee production is dependant on the state of the natural forest as the forest provides its ideal habitat in terms of shade, soil moisture and fertility. Of considerable concern is the gradual depletion of key and important upper story trees that provide the habitat for the coffee and other under story trees and woody perennials. Current forest coffee yields are very low and the stripping method of harvest instead of picking only the ripe coffee berries reduces the market value of the product. At present, coffee yield from the natural forest is less than a third of the improved coffee under semi-forest production systems. Thus the degree of shade and tree species providing the right habitat is not known through field trials. But work elsewhere indicate that forest shade of 30 to 45% provides ideal condition for good yield and quality.

But all experts agree that growing forest coffee is 'going forest wise". This to say saving the forest ensures coffee production and interest in forest coffee and developing the market will help protect the natural forest. If the natural forest goes, so does the forest coffee as a commodity in the market.

Conclusion & Recommendation

A Strong program of forest rehabilitation to enhance natural or forest coffee is recommended and the Technical and Strategic Plan Document has been prepared. This program of forest rehabilitation for increased forest coffee production must be linked with the processing and the market as outlined in the Technical Plan document. The market must not be allowed to continue being the distant markets of Jimma and Addis Ababa, but the processing and packaging/labeling must be completed in Bonga to ensure the benefits of Certification. The 5 PFMs now established through FARM Africa and the additional 25 planned by the government with the technical assistance of FARM Africa need to be the first target for this program. Project objectives, specific activities, strategy and expected outputs are detailed in the Plan Document.

To assist the implementation of forestry, a production package has been prepared and is appended to the Plan Document. But this suggested technology needs to be verified through field trials similar to the long term coffee shade trail being run by the

Wondo Genet College of Forestry by contracting the Jima Agricultural Research Center.

3.2 Improving Productivity & Management and Commercialization of NTFP Enterprises

3.2.1. Growing and Commercialization of Bamboo, Reed and Palm

Main Finding

Bamboo forests and patches of bamboo stands are extensive in the Dega zone. Reeds and Palm make up part of the natural forest too. These three related resources in terms of products and services derived from them are not used or are marginally used by the community. Very little reached the urban and industrial market. These natural resources do not receive attention and are not included in the development agenda of the local government and NGOs actively promoting and provided support services are absent in the region.

The study has included the market and marketing of bamboo especially the Addis Ababa market which remains the dominant market. But raw material or semi-processed material from Bonga hardly reaches even the Jimma market. The global market of utilization and growing of bamboo has been growing at the rate of 20% annually while that of Ethiopia remains negligible. Very few household both in the urban and rural areas are seen growing and harvesting bamboo for own use and for the local market. Bamboo can be cultivated by small holders and under commercial plantations

Conclusion & Recommendation

More concern has been expressed on the need to harness the existing bamboo resource in the Bonga Region as well as advocating the growing of bamboo for its market value and ecological services. At present prices at source are very low and those in Addis Ababa very high (more than seven times). This price difference may be due largely to cost of transport the high profit margin of the middleman. Therefore, processing and even finishing the product as close to the source is needed and is suggested. The need to create a strong institution base in the Bonga Region will ensure that the benefits accrued go to the producers too.

To facilitate the implementation of this program, training needs, tools of the trade and other essentials are included in the Plan document. More importantly, a Field Manual on how to grow and harvest bamboo has been prepared.

3.2.2. Growing and Commercialization of Medicinal trees and Livelihoods

Main Finding

A program on Medicinal trees has been developed based on three important indigenous but neglected tree species, namely; Prunus Africana and Hagen abyssininca. Of the two species, Prunus african is both economically and economically important. None of the existing forestry development programs actively support the cultivation and use of these species which are also important timber species, especially Hagen Abyssinia. A biodiversity station for Prunus has been mapped out but little field activity can be observed.

Adequate technical and scientific information for these species with in Ethiopia does not exist. There is therefore need to develop a strong Research and Development program for these and other medicinal plants

Conclusion & Recommendation

The importance of these two species is adequately clear. Both of these species also lend themselves for an agroforestry based system of cultivation. The place to begin is to develop a strong germplasm and development of support services including training farmers and development agents, especially on the rational exploitation of existing Prunus stock which is considerable.

To facilitate the implementation of this important program, a Field Guide to the demonstration, production and use of Prunus has been prepared

3.2.3. Linking Industrial Tea and Essential oils Production and Processing with out growers schemes

Main Finding

Starting from an understanding of the dominant topography and observing the economic gain the tea plantations are making and the soundness of growing

commercial tea, the team visited with the management of the WushWush Tea estate and Factories. The Team also traveled to Kenya to meet with the Kenya Tea Development Authority and observed the tea out growers and Small holder Tea production system. Both commercial tea and small holder tea growing have been successful and continue to be profitable.

The growing of lemon grass is also being attempted by the WushWush Tea Plantation. The Team also traveled to Wondo Genet to visit the research and production farm of lemongrass. It is to noted that lemon grass growing is not quite new to households in Ethiopia. Lemon grass is quite common in urban areas. The processing of essential oils shares some common facilities of manufacturing tea. The lemongrass grows well in the region too. Its tuft forming habit bakes it ideal for soil conservation. It is also not browsed or grazed by domestic and wild animals, making its establishment and management easy.

Conclusion & Recommendation

The need to consider farmers to participate in tea growing both economically and ecological sound. At present, farmers are being reduced to day workers of these large commercial farms of tea, coffee and spice crops. They can be made to participate in the production and leave the processing and marketing to the more organized and capital rich private sector (or with access to capital)'

To facilitate the growing and increased utilization of lemongrass, a Field Guide has been prepared.

3.2.4. Growing and Commercialization of spices

Main Findings

This a an important commodity and sub-sector and the region is already known for selected spice crops nearly all harvested from the wild. Wild Cardamom and wild long pepper are already important in the market. As was stated for the other commodities, this group also suffers from lack of institutional support and the marketing is poorly developed, especially drying and storage.

Recommendation and Conclusion

In general, there is a need for; (a) better production techniques using improved cultivars and those needed in the international market, (b) better and timely gathering/harvesting techniques, (c) better drying and curing techniques, including heat applications, (d) improved post-harvest handling including storage, conservation, processing, packaging and marketing. (e) improved propagation techniques, nursery development and planting methods, and (f) development of an effective private-public-community partnership committing resources to jump start the efforts describe above

3.3 Capacity Building to advance NTFPs and Agroforestry in the Region

Main Finding

It is abundantly clear that present capacity to undertake and implement development in both agroforestry and NTFPs is in government, NGOs and in the communities is very limited. Mo amount of planning and project design will see the light of the day until and unless technical and managerial capacities are built and developed and put in place with adequate finance and facilities. The presence of both FARM Africa and SuPACK in working partnership and the beginnings of rural micro-finances are making a difference. The proposed and detailed development plans (3 in agroforestry and 5 in NTFP) should clearly pave the way for a now chapter in the economic development and better managed natural resource base

Conclusion & Recommendation

The nine documents clearly have identified the need to improve and develop support services especially seed procurement and nursery facilities, establish more field demonstrations and in some cased establish full-fledged Farmer Field Schools. More importantly, the need to develop local skills and establish enterprises for the commodities identified is urgent. The role of the private sector and NGOS working in partnership with local communities is the strategy to follow.

The next step is for FARM Africa and the local governments to develop ownership of these nine documents and have them examined by would be implementers individuals and groups (teams). The implied institutional arrangements need to considered which will require changing departmental arrangement.

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Appendix 2: List of Persons Consulted & Took part in discussions

No.	Name	Position	Organization
1	Mesfin Tekle	ANRDD Head and BFCDP Team Leader	Zonal Agriculture & Natural Resources Development desk and FARM Africa (BFCDP)
2	Wubeshet Adugna	Deputy Team Leader	FARM Africa (BFCDP)
3	Ziyenu Lemma	PFM Officer	FARM Africa (BFCDP)
4	Luwiza W/Gebriel	Community Development Officer	FARM Africa (BFCDP)
5	Gebeyehu Gizaw	Forester	FARM Africa (BFCDP)
6	Solomon Hailu	Field Assistant	FARM Africa (BFCDP)
7	Zerihun Tekle	Reproductive Health Officer	FARM Africa (BFCDP)
8	Sebsebe Mulatu	Wushwush Tea Plantation/Factory Administrator	Ethio-Agri-CEFT Wushwush
9.	Yassen	Wushwush Tea Plantation/Factory Manager	Ethio-Agri-CEFT Wushwush
10	Solomon Ayele	Wushwush Tea Plantation/Factory Personnel	Ethio-Agri-CEFT Wushwush
11	Fantu Getachew	Wushwush Tea Plantation/Factory Factory Manager	Ethio-Agri-CEFT Wushwush
12	Dr. Biru Abebe	Head of Agriculture Division	MIDROC PLC.
13	Shewangezaw Tesfa	Tea Expert	Ethio-Agri-CEFT. Wushwush
14	Bedruzeman Abdela	Kafa Zone Administrator	Kafa Zone council
15	Fiseha	SUPAK Adminstrator	SUPAK
16	Mesfin Mengesha	Head	Kafa Zone Department of Finance and Economic development
17	Firehiwot Getahun	Investment Desk Officer	Kafa Zone Trade & Industry
18	Yedenek Kebede	Accountant & Acting Manger	Green Coffee Plantation & Agro-Industry PLC.

19	Mesfine Shiferaw	Agriculturist	Green Coffee Plantation & Agro-Industry PLC.
20	Seyume Filas	Agronomist	Kafa Zone Agriculture & Natural Resources Development Department
21	Asnake Yefru	Auditor & Acting head	OMO Micro-Finance Institution
22	Ketema Kochitto	Field worker	OMO Micro-Finance Institution
23	Tefera Kebede	Nursery Forman	Gimbo Woreda (Private Coffee Nursery)
24	Lidetu Gizaw	Director	Bonga Technical and Skill Development Institute
25	Mesfine Asaye	Wood Work & General Mechanics Technician	Bonga Technical and Skill Development Institute