NTFP south-west Ethiopia

Non Timber Forest Products Research and Development Project in S-W Ethiopia

STUDENT RESEARCH SERIES No. 3

Livelihood categories and NTFP-based options for development interventions to relieve poverty

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PREFACE

This study was produced through the collaboration of Wageningen University and the Non-Timber Forest Products Research and Development Project in South-west Ethiopia. The following student was involved in the production of this study on livelihood categories:

Mieke van Reenen

The Project is very grateful to this student from Wageningen University and her staff supervisors for their involvement in this study which is assisting the project in achieving its goals of reducing poverty and implementing sustainable management of the forests of southwest Ethiopia. The Project hopes that the student involved in this study will have gained from this experience and that it will assist her progress toward her career goals.

Prof. Adrian Wood
Project Manager.

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Abbreviations

NTFP – Non Timber Forest Products
FAO – Food and Agriculture Organisation of the United Nations
SNNP – The Southern Nations, Nationalities and People
PRA studies - Participatory Rural Appraisal

1. Introduction

1.1 Introduction to NTFP's

The preservation of tropical forests and the fight against poverty is still a big issue nowadays all over the world. Due to commercial logging, clearcuts for agricultural purposes, better infrastructures, etc large parts of tropical forests still disappear. This is a shame because forests can fulfill different important functions like regulate the climate, give room to plants and animals, produce timber and fuel, but also produce other products like herbs, medicinal plants, fruits, oils, etc. Next to this ecological importance there is also a social importance, namely for the indigenous people. These people have always lived in the forest and are dependent on it for all its products. The FAO (Food and Agricultural Organization of the United Nations) estimates that some 80 percent of the population of the developing world still uses Non Timber Forest Products (NTFP's) for health and nutritional needs (FAO). Some NTFP's are also important export commodities. At present, at least 150 NTFP's are significant in terms of international trade, including honey, gum arabic, rattan, bamboo, cork, nuts, mushrooms, resins, essential oils and plant and animal parts for pharmaceutical products (FAO). Nowadays NTFP's are no longer considered as 'minor' forest products, but are recognized as valuable products. It was been thought that the use of NTFP's was the solution on poverty alleviation and forest conservation, because the rural households are accustomed to and dependent on these forest products and because the exploitation of NTFP's is less damaging to the forest than the timber harvesting. It was also important that when NTFP's were seen as valuable products, the value of the whole forest would increase which made it even more important to preserve these forests. Since the early 80's a lot of research has been done on how NTFP's could contribute to poverty alleviation. Unfortunately the results tempered the high expectations. It was more complicated then expected. It is now acknowledged that NTFP's are very diverse and that the scope for NTFP exploitation is both product and location specific (Ros-Tonen and Wiersum, 2004). Nevertheless, the impending destruction of the world's remaining tropical forests and the continuing high level of poverty in the world make it imperative that both the contributions and the limitations of NTFP's on poverty alleviation are understood. This report will focus on a study carried out in the South western part of Ethiopia. This study aims to contribute to the reduction of rural poverty through exploring and developing the role which non-timber forest products (NTFP) can play in the livelihoods of the rural poor.

1.2 Project Area

This study focuses on the role of NTFP's in the south western part of Ethiopia. The study area is located in the highlands with an average altitude of 1500 m. The area includes the upper part of the catchments of several important rivers and is among the highest rainfall area of the country. Quite a large amount of the area is still covered with its natural vegetation (this in contradiction with the rest of Ethiopia), a tropical montane humid forest, with different degrees of degradation (JJIG, 2004).

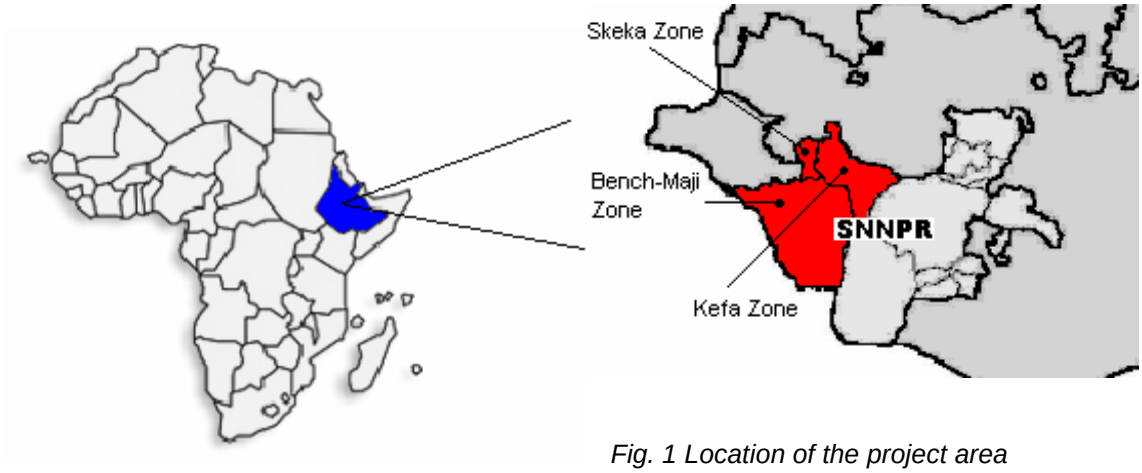

Fig. 1 Location of the project area

The project area lies in the regional state, The Southern Nations, Nationalities and People Regional State (SNNP). Of the nine zones present in this state, three zones were selected for the project, namely *Bench-Maji, Kefa* and *Sheka* zones (Figure 1). Within these zones 5 woredas (districts) were identified as focal areas for intervention and within the woredas 10 *kebeles*. For further study there were also 11 *Gots* selected within the *Kebeles*.

Table 1 **Selected Zones, Woredas, Kebeles and Gots**

Zone	Woreda	Kebele	Selected Got for further study
Sheka	*Masha*	*Uwa*	*Yigo No. 1 & 2*
		Beto	*Mechisa*
		(Gada)	*Cheri*
	Anderacha	*Yokichichi*	*Uti*
		Chegecha	*Yaga*
Kefa	*Gesha*	*Wachito Yeri*	*Noka*
		Anderacha	*Chata*
Bench-Maji	*Sheko*	*Shimi*	*Mehal-shimi*
			Mejengars from different Gots
		Shayita	*Weruka*
	Bench	*Janchuta*	*No further study done*
		Fanika	*Bayibesinta*
			Zanika

While the zones and *woredas* are located on different altitudes, and therefore in different ecological environments, a division is made between the high altitude zone and the low altitude zone. The high altitude zone comprises the zones with a range in altitude from 1700 to 2600 meters (*Sheka* and *Kefa* zones).
The low altitude zone has altitudes ranging from 800 to 1400 meters. *Bench-Maji* zone is counted in the low altitude zone.

1.3 Objectives and Goal

The goal of this report is to contribute to the goal of the project. In this report it is tried to contribute to alleviating poverty in South-West Ethiopia by identifying the different livelihood categories in the project area and link these categories with their specific NTFP's. In this report recommendations will be given to the project on which NTFP-based interventions could best be proposed to each of the livelihood categories.

1.4 Structure of Report

In this first chapter a short introduction was given on NTFP use regarding its contribution to poverty alleviation and on the project area in south west Ethiopia. Chapter 2 will explain to you what NTFP's exactly are and which NTFP's are of importance in the project area. The third chapter will give you a short introduction on livelihood categories and will follow with a description of the different livelihood categories in the project area. Chapter 4 will form the link between the second and third chapter. This results in an overview of the different livelihood categories and their specific relations to the different NTFP's.Chapter 5 will consist of the possibilities to use NTFP's to alleviate poverty (NTFP-based interventions will be given and described). Finally in chapter 6 there will be a conclusion and a discussion on the report.

2. Non Timber Forest Products (NTFP's)

2.1 General Description

Most of the time when we speak of the production function of a forest we are referring to timber. Other products next to timber, the so called non-timber forest products, were often neglected until recently. Non-timber forest products can be defined as "all tangible animal and plant products other than industrial timber, which can be collected from forests for subsistence and for trade" (Ros-Tonen et al. 1995). It became more and more clear that NTFP's play an important role, especially for the forest-dwelling communities. They are dependent on these products for food, medicines, construction materials, utensils, etc.
NTFP's cover a wide range of products, which are utilised in very different contexts and play different roles in household livelihood strategies. Some of them serve subsistence needs, others have important gap filling or 'safety net' functions and a few provide regular cash income (Angelsen et al, 2003).
An overview of the different products and utilisations of NTFP's is given by the FAO.

Table 2 Overview of Non-Timber Forest Products

Product category	Examples
Food	Edible plants and plant parts (seeds, roots, tubers, stems, leaves, shoots, flowers, fruits, nuts) providing vegetables, snacks, beverages, edible fats and oils, spices, flavourings, etc.
Forage	Plants used as food for livestock and wildlife
Medicinal products	Medicinal herbs and plants and plants parts (leaves, bark, etc.)
Construction materials	Bamboo, rattan, small wood, fibres, cork, leaves for roofing
Utensils	Smallwood for handicraft and tools, leaves for wrapping food, fibres for basketry and clothes
Bio chemicals	Non-edible fats and oils, waxes, gums, latex, dyes, tannins, bio chemicals for plastics and coatings, paint and varnish, toxins for hunting, hallucinogens
Aromatics	Essential oils for cosmetics and perfumes, incense
Ornamentals	Aesthetically pleasing plants, cut and dried flowers
Product category	**Examples**
Food	Meat and protein from mammals, birds, fishes, reptiles and insects; eggs, edible nests, honey
Forage	Fish oil, bones
Medicinal products	Pharmaceuticals extracted from mammals, fishes and reptiles
Utensils	Horn, feathers, bones
Bio chemicals	Wax, silk, propolis, guano, toxins
Ornamentals	Live animals and animal products like feathers, hides, skins, shells and horn

The collection of NTFP's is labour intensive, but requires little capital and skills. Many NTFP's are extracted from natural forests under open access regimes. Many NTFP's are therefore economically inferior products, yielding low returns for those engaging in their production and trade. So the characteristics that make NTFP's important and attractive to the poor are the same ones that limit the potential for increasing NTFP incomes (Angelsen et al, 2003). In case of financially attractive NTFP's, there is a tendency that in case of plant products a gradual change from extraction in natural forests to cultivation in agroforestry systems and/or farmlands takes place (Ros-Tonen and Wiersum, 2004).

Research has shown that the use of NTFP's differs between households and within households the use also depends on age and gender (Arnold and Ruiz Pérez, 2001). The use is also more situation dependent. For example a lot of NTFP's are collected when there is no other food, due to an agricultural disaster or they are collected when people need some extra income. Height of income also plays an important role. When people have more to spend and there are more possibilities they will choose other products then people who are so poor that they have to use everything they find to survive. Also due to the better infrastructures nowadays people are more aware of the civilized world and the fabric-made alternatives (Arnold and Ruiz Pérez, 2001).

2.2 NTFP's in the Project Area

The project area in South-west Ethiopia is still for a large part covered with its natural vegetation, a tropical montane humid forest, which is rich in NTFP's (JJIG, 2004).
To get a better understanding of which NTFP's are present in the area and where they are used for an overview of the NTFP's in the area will be given. A division is made between NTFP's in the high altitude zone and the NTFP's in the low altitude zone.

2.2.1 NTFP's in the High Altitude zone

The high altitude zone is, thanks to the high amount of trees, very suitable for beehive hanging and honey production. In figure 2 an overview is given of the NTFP's used in the high altitude zone. As can be seen honey production is the most important NTFP in this zone and in a much lesser amount forest coffee is also important. Of all the products that are used, 32% are non-timber forest products and 68% consists of livestock and agricultural products.

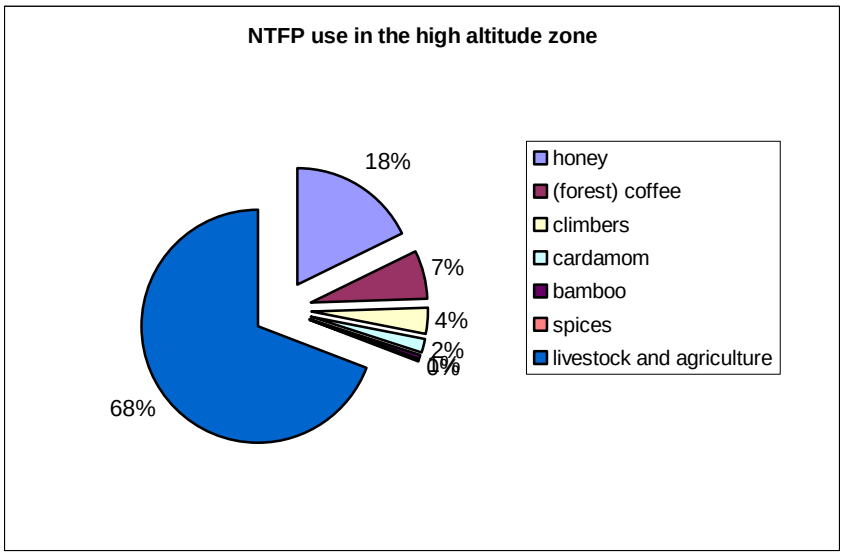

Fig. 2 NTFP Use in the High Altitude Zone

Honey
Honey is produced by hanging up beehives (made of wood or bamboo) in trees and is collected afterwards. The honey is used for household consumption as a nutritional additive and is used for sale for earning cash.
(Forest) Coffee
The 'wild' coffee is collected from the forest, while there are also coffee plantations. The coffee is used for household consumption to make coffee of it or for making a local drink. The coffee is also used for sale.
Climbers
Climbers are used as construction material for house construction and as ropes for tying up beehives and for livestock. The climbers are also sold for earning cash. At the same time climbers are used for drinking water during hard times.
Cardamom
Cardamom is harvested out of the forest for household consumption (for making spices) and is sold for earning cash.
Bamboo
Bamboo is used for house construction, for beehive making, for flooring, for fencing and for household equipments and utensils like chairs, drinking cups and baskets as well as for own households as for sale.
Other spices
Other spices that are used for consumption and sale are *Korerima, Piper capense, Dekeno* and *Timiz.*

2.2.2 NTFP's in the Low Altitude Zone

While the ecological circumstances in the high altitude zone are very suitable for honey production, the ecological circumstances in the low altitude zone are very good for coffee.
In figure 3 an overview is given of the NTFP's that are used at the low altitude. In comparison to the high altitude zone you can see that here (forest) coffee is more widely used then honey. Another difference is the division between non-timber forest products, which in the low altitude zone counts for 52% of all the used products, and the livestock and agricultural products which is just 48% of all the used products. The low altitude zone is less suitable for bamboo, but here fruit trees grow well and therefore are fruits also an important forest product.

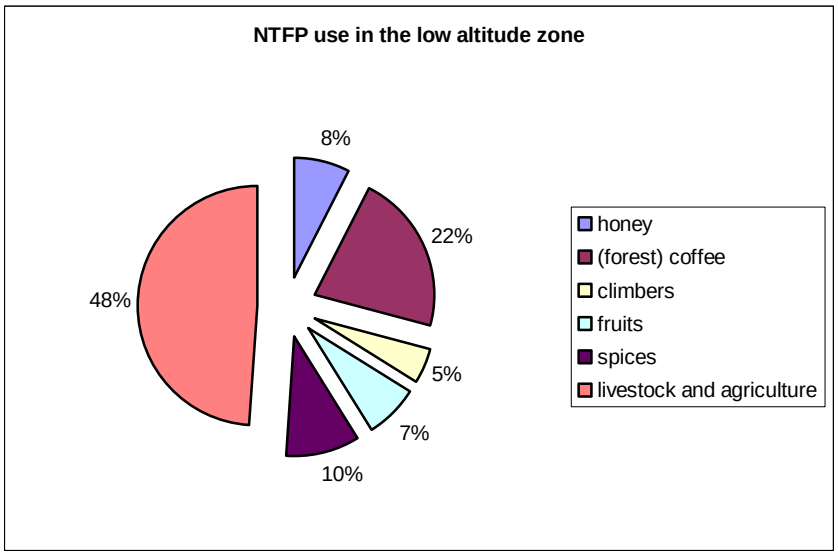

Fig. 3 NTFP Use in the Low Altitude Zone

There are already some NTFP's discussed in the high altitude zone, except for the fruits, the lowland spices and other NTFP's.

Fruits
Like mango, bananas, avocados, papaya, oranges, etc. The fruit trees not only produce fruits but they are also used as shade trees for the coffee plants. The fruits are for there own consumption and also for sale.
Spices
Like black pepper and ginger. It is used for there own consumption to spice up food or make local drinks and it is also sold for cash income.
Other NTFP's
There are many other NTFP products used from the forest, like medicinal plants, liana, palm, grass (for their houses), firewood, etc.
Plants in some *Kebeles* also animals are hunted and used.
The NTFP's the people in the project area live on are enset, annual crops, livestock, maize, etc. But these are counted as agricultural products and not as non-timber forest products.

3. Livelihood Categories

3.1 Introduction on Livelihood Categories

"Livelihoods consist of the capabilities, assets - both material and social resources - and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide net benefits to other livelihoods locally and more widely, both now and in the future, while not undermining the natural resource base." (FAO)
On the definition of poverty there has been much debate but it becomes more and more clear that poverty is not just a lack of material necessities, assets and income but that it also includes a deprivation in capabilities, voice and power that contributes towards a lack of well-being (Baumann, 2002).
For sustainable poverty reduction it is essential that the poor have access to natural resources (land, forests, water, fisheries, pastures, etc.). The livelihoods of rural people without access, or with very limited access to natural resources are vulnerable because they have difficulty in obtaining food, accumulating other assets, and recuperating after natural or market shocks or misfortunes (Baumann, 2002)
Rural livelihoods may be considered as dynamic strategies by which rural people seek first to survive and then to improve their well being over time (Stack et al, 2003).
In these strategies livelihood activities may relate in different ways to poverty alleviation. According to Angelsen *et al.* (2003) these relations can be categorized in different ways (figure 3).

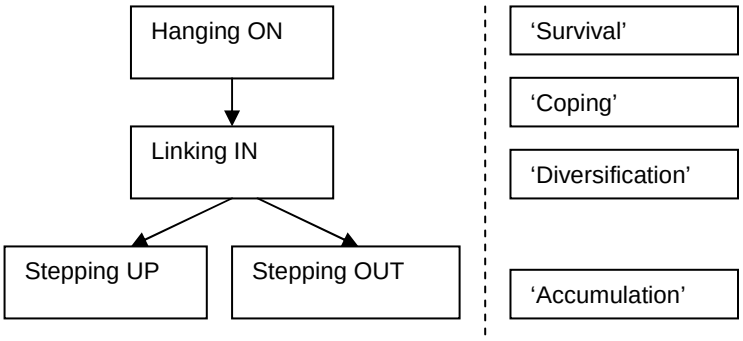

Fig. 4 Categorization of livelihood strategies

The 'Survival strategy' (Hanging on) means a strategy based on real survival. Forest products are the last possibility for households to obtain food and prevent destitution. While there are no other income sources around to enable households to maintain there current livelihood, this strategy acts like a safety net.
The 'Coping strategy' (Hanging on/Linking in) is used when there are a few other opportunities to improve household conditions. Households are using forest products for food security or for the provision of cash for essential livelihood costs. This is the most dynamic group, as people use a wide variety of products over time due to changes in the resources and prices, and the emergence of alternative income opportunities (Angelsen et al, 2003).
The 'Diversification strategy' (Linking in) is mostly used by households with a low to intermediate income. They have access to different sources of incomes, and forest products are not considered as a major income source, but rather as something additional. Households are trying to spread their risk by diversifying their livelihoods.
The 'Accumulation strategy' (Stepping up) is predominantly used by households with an intermediate to high income. Forest products are used as a means to household assets and income. Only selected financially attractive products are used, often in specialized production (including manufacturing) systems; these NTFP production systems may form the most important source of income to the households.

3.2 Description of the different Livelihood Categories in the Project Area

While it is very difficult to measure or compare livelihoods, a common used tool is the categorization of livelihoods according to levels of wealth. Not only the amount of money is

counting, but also the amount of assets, the activities they undertake and the outcomes they receive at a given moment.
In the project area in South west Ethiopia different criteria are made-up by the forest communities to come to a socio-economic classification where the community can be divided in to four economic classes: 'rich', 'medium', 'poor' and 'very poor'. Criteria which were used for this division were a number of beehives, cattle, size of agricultural land and size of enset plantation. In the end, participants emphasized that family size is another decisive factor in determining wealth status. Usually, the larger the family size the better the household is able to engage in many activities, and therefore, the better the economy (PRA studies), while the project area consists of areas of different altitude and therefore of different ecological climates the project area is divided into a high altitude zone and a low altitude zone.

3.2.1 High Altitude Zone

The high altitude zone comprises the three Woredas located in the upper regions of South west Ethiopia. In the *Sheka* zone the *Masha Woreda* and *Anderacha Woreda* and in the *Kefa* zone the *Gesha Woreda* (see also fig.1 and table 1).
The altitude ranges from 1700 to 2600 m with Masha and Gesha Woreda located in the higher regions within this range and *Anderacha Woreda* in the lower part of this range. *Anderacha Woreda* is more or less a transitional zone between the higher and lower regions of south-west Ethiopia (JJIG, 2004).

Table 3 Demographic Information High Altitude Zone

Woreda	Kebele	Ha	Population	# Gots	Got	Population
Gesha	*Anderacha*	5747	3339	4	*Chata*	978
	Wachito Yeri	4091	2948	9	*Noka*	400
Masha	*Beto*	3853	835	4	*Mechisa*	180
	Uwa	3500	1292	4	*Yigo No. 1&2*	705
	Gadda	?	?	?	*Cheri*	?
Anderacha	*Chegecha*	4355	1318	4	*Yaga*	378
	Yokichichi	2749	874	4	*Uti*	161

All the *Woredas* in these two zones are situated in the same climatic zone (Dega zone). Most of the area is still covered with its natural vegetation, a tropical montane humid forest, which is rich in NTFP's. Although due to an increasing population, the ongoing degradation and accelerated expansion of agricultural lands, the construction of new access roads, the recent fall in coffee prices, the non-sustainable use of NTFP's and the coming of big agro-industrial investors. The area suffers several degrees of degradation (JJIG, 2004). This degradation of the area not only affects the remaining forests, but also the livelihood conditions of the population.

While there are differences in the socio-economic status of the households there has been a ranking of socio – economic status. This ranking is based on criteria made by the communities themselves to categorize their economic status.
Although the major criteria used for the classification are the same for the different *Gots*, there are also some different criteria.
In general the used criteria are:
- Size of farm land for crop production
- Size of enset farm
- Number of livestock
- Number of traditional beehives

It depends on the *Got* what is seen to be the most important criteria and the criteria which is less important.
Next to these criteria it is important to keep in mind that there is in some *Kebeles* still a traditional ownership system (*Kobbo* system). Therefore not all the resources are accessible for everybody. The *Kobbo* owners inherit their holdings from previous generation, so the ownership stays in the family. Sometimes when *Kobbo* owners have left the *Kebele* or are deceased but have no descendent some land rights become free (Most of the time the land rights are divided by the

elder of the *Kebele*). *Kobbo* owners can lend their holdings to other people and then share the benefit (*Kobbo* ownership is mainly related to the 'rich').

In table 4 an overview is given of the different *Gots* and their criteria for the 'rich' economic class.

Table 4 The 'Rich' Economic Category in the High Altitude Zone

Got	%	beehives	Enset (timad*)	Crops (ha)	# of livestock
Chata	17	250	2 – 3	5	2 oxen, 3 horses, 20 livestock, 1 mule
Noka	10	80 - 100	2 – 3	2	4 oxen, 2 horses, 10 – 15 milking cows and other livestock
Mechisa	17	100	3	2	2 oxen, 13 livestock
Yigo No. 1&2	10	150	2	3	2 oxen, 1 horse, 2 milking cows, 35 livestock, 10 poultry
Cheri	14	Up to 100	2 ½	4	2 oxen, 1 horse, 3 milking cows, 4 livestock
Yaga	18	80	3	1 ½	2 oxen, 2 horses, 20 livestock
Uti	34	60	2	3	2 oxen, 1 horse, 3 milking cows, 5 cattle

* timad = land area that takes 3 pairs of oxen plough a day (approximately 0,125 ha)

One of the differences is that some *Gots* have categorized only three economic classes while the other *Gots* have categorized four economic classes. Next to 'rich', 'medium' and 'poor' they categorized the class 'very poor'. In general the 'rich' and the 'medium' classes are self sufficient and can use their products for own consumption and for sale. The difference between 'rich' and 'medium' is that the 'medium' class is earning less money for their products and has less capital to invest.

In *Chata Got* the 'rich' class is involved with farming, producing crops, enset and beekeeping. Of the criteria used in *Chata Got,* enset could be considered as a main criterion since it is a major source of livelihood. In *Noka Got* and also in the other *Gots* the 'rich' class provides labour support (Defo) for the poor people. They also lend money to the poor people. In *Noka Got* the 'rich' class has a better *Kobbo* size and have the financial capacity to buy and store honey. They buy honey at peak time for a low price, they store it and then when peak time is over they resell the honey for a higher price. Because you need a large amount of money and space for storage, it can only be done by the 'rich' and to some extent by the 'medium' class. In all the *Gots* the 'rich' class is highly engaged in honey production, although the 'rich' in the *Chata Got* are by far the biggest producers of honey. The 'rich' are so engaged in honey production due to the *Kobbo* system. The 'rich' have most of the land rights so they have a lot of trees to hang up their beehives. In *Mechisa Got* the number of beehives is the most important criterion, while in Yigo and *Uti Got* crop production is seen as the most important. In *Cheri Got* there is no uniformity in share honey production system. Some times the rich class give out their tree for other people who are clever in climbing trees and other time, they are also involved in using of other's tree by contributing labour. In general, share system of honey production depends on individual's ability not in economic status.

Table 5 The 'Medium' Economic Category in the High Altitude Zone

Got	%	beehives	Enset (timad)	Crops (ha)	# of livestock
Chata	54	100	1 ½	3	1 ox, 1 livestock
Noka	49	50 – 70	1	2	2 oxen, 1 horse, 3 milking cows
Mechisa	34	70	2	1 ½	1 ox, 9 livestock
Yigo No. 1&2	49	120	1 ½	3	1 ox, 1 horse, 15 livestock, 5 poultry
Cheri	17	80	2	2	1 ox, 1 milking cow, 3 livestock
Yaga	51	50	2 ½	1	1 ox, 1 horse, 10 livestock
Uti	24	40	1	2	1 ox, ½ horse, 2 milking cows, 3 livestock

Table 5 shows the categorization of the 'medium' economic class.

In general the 'medium' class distinguishes itself from the 'poor' class by being self sufficient and not being involved in labour work. The 'medium' class differs from the 'rich' class by the amount of every resource. They have less of everything, therefore less remains after their own consumption for sale. Also the amount of knowledge, skills and space for storage is less in the 'medium' class.
The 'medium' class also depends not only on one resource but on the combination of honey production, enset, agricultural production and livestock, this can be seen in table 5.
In *Mechisa Got* the 'medium' class is not only engaged in honey production but also in the enset farming.

After discussing the better and moderate living standard, the next table will consist of the 'poor' economic class.

Table 6 The 'Poor' Economic Category in the High Altitude Zone

Got	%	beehives	Enset (timad)	Crops (ha)	# of livestock
Chata	20	70	0	1	0 (no own livestock)
Noka	28*	20 - 25	½	0	½ ox, ½ milking cow, 2-3 sheep
Mechisa	20*	40	1	½	½ ox, 3 livestock
Yigo No. 1&2	31	50 – 100	0	1 ½	0 (no own livestock)
Cheri	30*	60	0	⅛	½ ox, ½ milking cow, 2 other livestock
Yaga	31	25	2	½	½ ox, 0-3 livestock
Uti	42	20	½	1	0 (no own livestock)

* these Gots have 4 economic classes, next to 'poor' there is a class 'very poor'. See table 6.

As can be seen in table 6 the criteria vary per *Got*. It has to be noted that the criteria here are not really the same due to the fact that some *Gots* have an extra economic class, namely 'very poor'. What is striking is that they have little to nothing of their own. Most of the time they have to get money from the rich or even have to work for the rich. They can pay back what they owe with the products they produce. (After their own consumption nothing is remaining for sale).
In *Chata Got* the 'poor' mainly depend on honey and forest products. In *Yaga Got* the 'poor' are also engaged in honey production, but have a very low return, because they can not store produce and have to sell it at peak time for low prices, next to honey production they are involved in cardamom production.
In the other *Gots* the 'poor' are dependent on forest resources like wild cardamom, coffee, bamboo made beehives, construction materials like tree fern and pole, etc. They are not only harvesting wild coffee but are also employed in coffee plantations as daily labourers. In *Yigo Got* the 'poor' engage next to forest products in hunting and charcoal making. The 'poor' class distinguishes from the 'very poor' by being not entirely involved in labour work.

The last and in some cases an extra economic class is the 'very poor' class. As can be seen in the next table the 'very poor' have (almost) no fixed asset or property. They lack the skill, knowledge and capital to work for themselves. Therefore they have to work for the rich. Especially this group of people is very dependent on forest products.

Table 7 The 'Very poor' Economic Category in the High Altitude Zone

Got	%	beehives	Enset (timad)	Crops (ha)	# of livestock
Noka	13	0	< ⅛	⅛	0 (no own livestock)
Mechisa	29	10	½	¼	0 (no own livestock)
Cheri	40	10	< ⅛	¼	0 (no own livestock)

The very poor classes are in most cases female headed house holds, disabled people, lazy people, those who were not systematic in their farming activities and those whose farm land is not properly managed, due to the absence of oxen.

3.2.2 Low Altitude Zone

The low altitude zone comprises the two *Woredas Sheko* and *Bench* located in *Bench-Maji* zone (see also fig.1 and table 1).

Table 8 Demographic Information Low Altitude Zone

Woreda	Kebele	Ha	Population	# Gots	Got
Sheko	*Shimi*	2318	1032	8	*Mehal-Shimi*
					Mejengar Gots
	Shayita	2353	1026	3	*Weruka*
Bench	*Janchuta*	?	2958	11	
	Fanika	?	2171	7	*Baybesinta*
					Zanika (Menets)

The *Bench-Maji* zone lies on an altitude that ranges from 800 m on the lowest part in the zone, up to 1400 m. In the local division all *Woredas* fall within the same agricultural zone (*Weyna Dega*) and within one ecological zone. The authentic vegetation in the zone was tropical lowland forest with the natural occurrence of coffee and many animals. The original inhabitants were *Sheko*, mejengar and menet ethnic groups who could be characterized as pastoralists and hunter-gatherers. Later on there was an increase in immigration, which caused a greater ethnic diversity and a higher population pressure (JJIG, 2004).

Just like in the high altitude zone, here in *Bench-Maji* zone are differences in the socio economic status among the households. While there are differences in the socio-economic status of the households there has been a ranking. This ranking is based on criteria made by the communities itself to categorize their economic status. Although the major criteria used for the classification are the same for the different *Gots*, there are also some different criteria.
In general the used criteria are:

- The size of coffee land holding
- Number of farm oxen and other livestock
- Size of land for annual crops

In *Bayibesinta Got* a fourth main criteria was number of fruit trees, while in *Zanika Got* the fourth main criteria was the number of traditional beehives.
In *Weruka Got* there were some other criteria next to this main criteria, namely:
devotion/commitment for work, type of house, tendency to borrow in emergency (self-sufficiency) and their capacity to handle money properly.

In the next table the criteria for the 'rich' economic class in the different *Gots* is given.

Table 9 The 'Rich' Economic Category in the Low Altitude Zone

Got	%	Beehives	Coffee (ha)	Crops (ha)	Livestock	Fruit trees + banana harvest (anbaza*)
Weruka	15		1	Sufficient	2 oxen, 5 milking cows	
Bayibesinta	12		15	5	6 oxen, 15 livestock	10 mango trees, 10 orange trees, 100 anbaza* bananas
Zanika	13	70	5	2	2 oxen, 4 livestock	

* anbaza = approximately 15–20 kg

The 'rich' in *Weruka Got* have their own capital and don't have to borrow money in case of emergency and their houses are roofed with corrugated iron. The 'rich' class are hard working people and they properly use their money. In *Bayibesinta Got* the 'rich' lend money to the poor, share cropping and livestock with them and hire daily labour for their farm activities. The 'rich' are

also involved in honey production, storing maize and coffee beans, so they can sell it at a later time when the prices are higher.
In *Zanika Got* the 'rich' get income from the sale of coffee and they benefit from livestock products both for their own consumption and sale. Here the 'rich' are also engaged in sharing products and lending money to the 'poor'.

Table 10 The 'Medium' Economic Category in the Low Altitude Zone

Got	%	Beehives	Coffee (ha)	Crops (ha)	Livestock	Fruit trees + banana harvest (anbaza)
Weruka	60		½	½	1 cow	
Bayibesinta	23		8	2	1 ox, 5 livestock	2 mango trees, 2 orange trees, 20 anbaza bananas
Zanika	30	30	1 ½	⅛	1 ox	

The 'medium' class in *Weruka Got* have their own capital, but they may borrow from others occasionally. Their houses are made of corrugated iron or grass thatch and are also seen as hard workers, but only to some extent.
In *Bayibesinta Got* and in *Zanika Got* the 'medium' are engaged in crop, coffee, honey and fruit production. They rarely hire farm daily labour, but they lend the poor money when they need it, whenever they are short of cash themselves they can borrow from the rich people.

Table 11 The 'Poor' Economic Category in the Low Altitude Zone

Got	%	Beehives	Coffee (ha)	Crops (ha)	Livestock	Fruit trees + banana harvest (anbaza)
Weruka	25		½	< ½	0 (no own livestock)	
Bayibesinta	41*		1	½	2 livestock	1 mango tree, 6 anbaza bananas
Zanika	57	6	⅛	⅛	0 (no own livestock)	

* this Got has 4 economic classes, next to 'poor' there is a class 'very poor'. See table 11.

The 'poor' in *Weruka Got* have (almost) no own capital and have to borrow from others. Their houses are grass thatched, with weedy homesteads. (They are weak for certain reasons or have no motivation to work). Also they do not properly manage the meager income they get.
In *Bayibesinta Got* and *Zanika Got* the 'poor' are supported by their own harvest (coffee, crops, and fruits) for certain time, they share cropping and livestock with the 'rich' and sometimes involved in daily labour.

In *Bayibesinta Got* there is a fourth economic category, the 'very poor'.

Table 12 The 'Very poor' Economic Category in the Low Altitude Zone

Got	%	Beehives	Coffee (ha)	Crops (ha)	Livestock	Fruit trees + banana harvest (anbaza)
Bayibesinta	24	0	0	0	0 (no own livestock)	0

The 'very poor' have no land, except where they established their house or livestock at all; they entirely depend on income obtained from daily labour. The poor are not trusted no one is willing to give them credit or a chance. Rarely if they get a loan they are unable to pay it back on time.

Concerning activities of engagement - There is no major difference between the different economic classes other than difference in the degree of involvement in each activity by members of the three economic classes. Size of coffee holding in the forest is one of the important criteria for categorizing community members into one of the three economic classes. Besides the size of the holding ability/motivation to properly manage the coffee holdings in the forest it is an

important factor. There are some households possessing larger coffee lands in the forest but could harvest less at the end of the day, because the coffee plant in the forest requires regular tending operations such as cutting climbing plants, clearing woody as well as herbaceous plants which can be potential weeds to a coffee plant. Regulating shade by removing big trees in the canopy layer, and sometimes hoeing can be beneficial.

In *Mehal-Shimi Got* and some other *Mejenger Gots* they used other criteria for ranking there economic status. As there are no real numbers available these *Gots* are not included in the tables above and their ranking will be explained below.

Their criteria for classification were:

- The best (maximum in Shimi) coffee land holding
- Additional income from other sources (trading honey, coffee, etc.)
- Number of beehives (only Counts for the Mejengars)

Class rank:

1. Rank number one farmers (largest coffee land holding, has some people working, part of his coffee land being given for share cropping, has additional income from trading of coffee or honey or both, lives in houses constructed from corrugated iron sheets).
2. Rank number two farmers (has enough coffee land holding to work on, or has a good number of beehives in case of Mejengars, can give some part for share cropping or share harvesting of honey, may have some additional income from trading of honey and not coffee, may have a house made from corrugated iron sheets)
3. Rank number three farmers (no coffee land, very small number of beehives, works mostly for the rank number two and/or number one farmer, does not own houses made from corrugated iron sheets)

3.2.3 Conclusion

When you compare both zones it is clear that the big difference in altitude causes a difference in micro climate and ecological circumstances. Due to these differences there is also a difference in resources found and used in the high altitude zone and the low altitude zone. Looking at the different economic classes, there is no obvious difference between the high and low altitude zone.
The difference between the economic classes is mainly the amount of assets and property owned, this is for a large part caused by the traditional ownership system (the *Kobbo* system).
The 'rich' are recognized by their high amount of assets, capital and knowledge. They are self sufficient all year round.
The 'rich' have the advantage of financial and spatial capacity to buy products at peak time, store them and sell them when peak time has past.
The 'rich' provide labour for the 'poor' class and in some *Kebeles* they also have share cropping and the share of livestock with the 'poor'.
The 'medium' class is also self sufficient almost all of the year. Their difference with the rich class is that they have less of everything, assets, capital, knowledge, etc. Because the 'medium' class is self-sufficient, they are not involved in labour work. When the 'medium' class is short in cash they can borrow money from the 'rich'. They themselves also lend money to the 'poor'.
The 'poor' and the 'very poor' are characterized by the fact that they have own fixed asset and property of their own, they have to work for the 'rich' class. Because they have none of their own land to produce on, this leads to depending on the forest for their products.

4. Livelihood Categories and their Specific Relation to NTFP's

In chapter 2 an overview was given on the NTFP's present in the project area and in chapter 3 an overview was given of the different livelihood categories.
A link will be made between the different livelihood categories and there NTFP use. To keep it surveyable the different livelihood catgeories will again be presented divided in the high and low altitude zone and categorized in their economic classes.

4.1 High Altitude Zone

As was already mentioned in the high altitude zone honey and enset are of main importance. Now let's have a look at a more detailed level.

The 'rich' economic class
Due to the *Kobbo* system the 'rich class' possesses a lot of trees where they can hang up their beehives. The 'rich' class also have a lot of land for agricultural purposes, like annual crops and enset.
The 'rich' class is mainly involved with farming, producing crops, enset and beekeeping. The main use of NTFP's by the 'rich' is honey production. They sell the honey at the market for earning cash. The 'rich' also have the financial means to buy honey from the poor and very poor classes during peak time for a low price. They then store it and after peak time has past, when honey is much more scarce they sell it for a higher price.
Honey production is not the most important activity in all *Gots*, other activities and resources are also important for the 'rich', like crop production, livestock (*Yigo Got, Uti Got, Yaga Got* and *Cheri Got*) and enset farms (*Yaga* and *Chetta Got*) (see figure 6). In *Uti Got* the 'rich' also extensively practice some cardamom domestication.

Fig. 5 A home garden enset farm in *Chetta Got, Anderacha Kebele*

Although the ownership of their land is in the hands of the rich people, the hard work on these lands is done by the poor and very poor classes, for which they receive a payment, this labour support system is called 'Defo'. Next to supporting labour the 'rich' also lend money to the poorer classes. The poor classes have to pay it back with money, products or labour. While the 'rich' class has enough financial capacity and has lots of livelihood possibilities, NTFP's are not their main source of living, but is seen more as an additional income.
Looking at the different livelihood categories shown in figure 3, you could say that the 'rich' in the high altitude zone have an 'accumulation strategy'. Honey production is financially attractive to them and this production is one of their major sources of income.

The 'medium' economic class
The 'medium' class also has trees for beehive hanging and they own some livestock and agricultural land for producing enset and agricultural crops. Just as the 'rich' class this class is also self-sufficient, at least most of the year. In *Yaga Got* the 'rich' and 'medium' are not purposefully involved in cardamom collection, but they collect it whenever they get it on their way. The 'medium' class is occasionally involved in *Korerima* collection, but only for household consumption.

The difference between 'medium' and 'rich' classes, is that the 'medium' class is earning less money for their products and has less capital to invest. This is also due to the fact that they have less property, skills and knowledge.
The difference between 'medium' and 'poor' is that the 'medium' class is not involved in labour work. When the 'medium' class needs money they borrow it from the 'rich', but also lend money to the 'poor' people.
They use multiple NTFP's to diversify their livelihood and the collection of NTFP's is not their main source of income but rather something additional therefore the strategy of the 'medium' class can best be described as a 'diversification strategy'.

The 'poor' economic class
The 'poor' don't own a lot of land or livestock, they have little fixed asset and property. In *Yaga Got* there is no *Kobbo* system, however the community has already developed conventional norms of using trees for beehive placing. There is no exclusion on the other NTFP's, except planted coffee.
The 'poor' are mainly engaged in enset and honey production and also in the collection of NTFP's like wild cardamom, coffee, *Gesho*, climbers and palm. In *Yigo Got* they are involved in hunting and charcoal making, In *Cheri Got* bamboo is also very important. They harvest the bamboo for sale, beehives, household attributes or utensils.
The 'poor' can most of the time, survive with their own production, otherwise they can get money from the richer classes, they lack the skill and knowledge and therefore their involvement in farming and livestock is most of the time as labourers for the rich class. The difference with the 'very poor' is that they are not entirely involved in labour work.
The 'poor' still have some opportunities to improve their household conditions, but they need the forest products for food security or for the provision of cash for essential livelihood costs. Looking at the different livelihood categories the 'poor' are thus using most of the time a 'coping strategy'.

The 'very poor' economic class
The 'very poor' have (almost) no fixed assets or property. The very poor classes are in most cases female headed house holds, disabled people, lazy people, those who were not systematic in their farming activities and those whose farm land is not properly managed, due to the absence of oxen. The 'poor' and 'very poor' don't have enough knowledge and capital to benefit from the growing market opportunities of NTFP's. They are mainly depending on honey and forest products, for there money. They have to work for the richer people in farming (annual crops), livestock or coffee plantations. If they can't find work in their own *Got* they migrate to other *Gots* or Kebeles. Next to this labour work they have to lend money from the richer classes, the only problem is that most of the time they can't pay it back in time and so, less people are willing to lend them money.
The livelihood strategy of the 'very poor' class can be categorized as a 'survival strategy'. Next to the forest products there are no other income sources available, forest products are the last possibility for them to obtain food and prevent destitution.

4.2 Low Altitude Zone

The low altitude zone has the right conditions for coffee and therefore is the most important source of income for the communities here. Like is undertaken in the high altitude zone, the NTFP use in the low altitude zone will also be discussed using the division in economic classes.

The 'rich' economic class
The 'rich' class has a lot of land, livestock, capital and knowledge. They are largely involved in domesticated coffee and agricultural products; these are the main sources of income in this zone. *Shimi Kebele* is divided into two major types of forest areas: the area where coffee is extensively managed and the forest where coffee may exist naturally (not managed and do not belong to individuals), but being used mainly for honey production.
The major sources of livelihoods in *Shimi* are coffee and honey, where the domesticated coffee is for the 'rich' class and honey for the 'poor' and crop production or production of fruits and vegetables are very limited. Other NTFP's have not been used extensively; if there has been any, it is only for household consumption not for sale.

In *Bayibesinta Got* the 'rich' also hire labour for their farms and use share cropping to manage their agricultural lands. Opposite to the rich people in *Shimi*, the 'rich' in *Bayibesinta* are engaged in honey production and marketing.
Like we have seen in the high ecological zone with honey, here in the low ecological zone the 'rich' have the capital and capacity to buy coffee at a low price during peak time, store it and sell it for a higher price when peak time is over (*Bayibesinta* and *Zanika Got*).
The 'rich' class use parts of their land for annual crops, where also share cropping takes place. This means that the rich contribute land, seed and oxen while the poor contribute labour, share the produce and are able to lend money to the poor.
The 'rich' benefit the most from honey and coffee production, which could be due to better holdings as well as proper management and appropriate marketing season. Looking at the different livelihood categories shown in figure 3, you could say that the 'rich' in the low altitude zone have an 'accumulation strategy'. Coffee production is financially attractive to them and this production is one of their major sources of income.

The 'medium' economic class
The 'medium' class is characterized by land owning farms, which are involved in agricultural resources, coffee, honey production and marketing: The different *Kebeles* and *Gots* have their own livelihood strategies.
In *Shimi Kebele* they have lots of coffee land holdings to produce coffee. Like the 'rich' the 'medium' class also use part of their land for annual crops. Next to the farming land they may have additional income from honey trade. The Mejengars and indigenous people in *Shimi Kebele* are mainly involved in honey production. Meaning the 'medium' class is characterized by a good number of beehives. In *Bayibesinta Got* crop farming is seen as the most important source, followed by enset, livestock, coffee, fruits and honey.
The 'medium' class rarely hires daily labour, but they use parts of their land for share cropping with the poorer people. They also lend money to the poorer classes and get it back in coffee. When the 'medium' class is in urgent need they contract out their coffee farm for one harvest to the rich class or they borrow the money from them and pay it back in the form of coffee beans. In *Zanika Got* the 'medium' class can support themselves from their own coffee, honey and crop production. In this *Got* the 'medium' class is involved in sharing cropping with the poorer people. When they need money themselves they share in honey production with the 'rich' class.
Because they have several sources of income with which they diversify their livelihood and spread the risk and forest products are not seen as their major income source, the livelihood strategy of the 'medium' class in the low altitude zone can be best categorized as a 'diversification strategy'.

The 'poor' economic class
The 'poor' class is characterized by the fact that they have no, or almost no, fixed asset and property. The 'poor' class includes women headed households and indigenous people, they only possess a very small number of beehives. They are weak for a certain reason or have no motivation to work; they do not properly manage the meagre income they get. The *Mejengars* in this class are involved in honey production and NTFP collection. They work for the other classes to generate money and would have a hard time producing a sustainable livelihood strategy (The 'poor' class will migrate to other *Gots* when they are looking for work).
In *Bayibesinta Got* the 'poor' are supported by their own harvest for a certain length of time. They share cropping with the rich and also livestock sharing, so they can produce there own products and then hand over part of the yield.
When they have serious money trouble they can lend money or contract out their coffee farm for a certain time (In *Zanika Got* the 'poor' are also involved in labour work and share cropping). Their livelihood strategy is called a 'coping strategy'. They have several sources of income but they need the forest products to ensure the maintenance of their household.

The 'very poor' economic class
Only in *Bayibesinta Got* a fourth economic class was categorized. The 'very poor' class has no land except where they established their house. They also have no livestock and entirely depend on income obtained from daily labour.

The ‘very poor’ is the class that is most dependent on the forest for its products. They need the forest products to survive therefore they are living on a ‘survival strategy’. They have no other income sources then the collection of forest products.

4.3 Conclusion

It becomes clear that there is a variation in NTFP use, not only between economic classes but also between *Kebeles, Gots* and even communities, as was said before the *Kobbo* system determines for a great part the access to the forest. The proximity to the forest plays an important role. Next to these two main reasons for the variation in NTFP use it is also determined by awareness of the benefits, long experience of production system and knowledge of the exact location of the resource.
The high altitude zone is still covered with a lot of natural forest. This high amount of trees are used for hanging up beehives therefore the communities in this zone mainly rely on honey production, although enset also has a very important role due to its multifunctional use and its historical cultivation. The low altitude zone has a climate, soil, altitude and humidity that suit coffee production. The coffee that is growing naturally in the forest as well as the planted coffee produced in an agricultural way is the main source of income for the local communities (JJIG). Next to these non-timber forest products, annual crops and livestock production are used as supplementary sources in both zones.
The ‘rich’ and ‘medium’ classes are mainly involved in honey production (high altitude) or coffee production (low altitude), they are also involved in crop production, livestock and enset farms. The ‘rich’ class has the financial capacity to store their products and sell it at a later time when prices are higher, however The ‘rich’ and ‘medium’ classes are not really involved in collecting forest products, only for own household consumption.
The ‘rich’ class chooses one financially attractive production (honey or coffee) and this production is one of their major sources of income. The ‘medium’ class uses multiple NTFP’s to diversify their livelihood and the collection of NTFP’s is not their main source of income but rather something additional. The ‘poor’ and ‘very poor’ don’t have many assets and property therefore they are engaged in enset farming and honey production, but mostly in the collection of NTFP’s. The ‘poor’ still have some opportunities to improve their household conditions, but they need the forest products for food security or for the provision of cash for essential livelihood costs. The ‘very poor’ have next to the forest products no other income sources available. Forest products are the last possibility for them to obtain food and prevent destitution.

As was stated before, the sale of forest products (raw and transformed) is one of the survival strategies for the economically poor classes of the community, while the economically better-off classes use forest products only as additional resources or for own use.

5. NTFP- Based Development Interventions

Now that we have a better overview on which livelihood categories there are and how they use the non-timber forest products, it is time to work on the second goal of this report, namely to give NTFP - based development options to alleviate poverty in the selected project area.
There are a lot of different ideas on how poverty can be alleviated in developing countries, the difference is where the priorities are lying. Developing organisations are really focused on the very poor people, the government might be more interested in stimulating the whole economy and the real ecologists are concerned about the preservation of the forests and a sustainable management.
The focus of the project is mainly on the 'poor' and 'very poor' classes and on sustainable forest management, development options have to been sought within this framework.

Of course a lot of general options can be given which count for the whole project area or even could count for the whole country, but because the goal of this report is to support the goal of the project the options have to be more detailed. Therefore the development options will be again divided for the high and low altitude zone and will be discussed per wealth class. Obviously there will be some similarities and some options could count for both altitude zones and for the different classes. Each zone is discussed explaining which problems there are on poverty, how these can be solved (poverty alleviation) and what the effects, both positive and negative, will be on the communities and the environment. Sometimes the options are for all the *Kebeles* otherwise the meant *Kebele* is mentioned.

5.1 High Altitude Zone

The 'poor' (and 'very poor')*
The 'poor' class is the group of people which the project is focused on, therefore we start with the 'poor' class. The biggest problem for this group and the main reason why this group is so poor is that they have no property or fixed assets. A logical conclusion is that when you want to alleviate their poverty you have to think of solutions concerning their absence of assets.

While the 'poor' are dependent on the forest for its products, one option can be to give them more rights on the forest area and products, now the forest would be accessible for everybody. As long as everybody can take out of the forest what they need, the forest products have no value. When you give the 'poor' the rights on these forest products, their value will increase. The 'rich' will probably not protest, because they don't really use the forest products. Until they see that money can be made out of it, but by then it is already too late to protest. To give them rights on the forest products is not only beneficial for the 'poor' for their harvesting, but it is also important for the future of these products. When there is an open access to the forest and everybody can take out what it needs, it gives a real risk on overexploitation. And when overexploitation occurs and all the forest products disappear poverty could increase further

As was said before, due to the *Kobbo* system, the landrights are already divided and it is very difficult, when you have no land, to obtain it. The poorer people have no ownership rights and therefore no trees for hanging up beehives. It is still not clear if the *Kobbo* system is good or not for the local people. A real solution on the *Kobbo* system is not possible, because you will always harm one of the parties. Not having a *Kobbo* system means a fair distribution of the patches along all the communities, this means that the rich class, have to give up parts of their property. Keeping the *Kobbo* system means that the poor families, who have no land of their own, will also never get it, because it is inherited from generation to generation. So for poverty alleviation it might seem to be good to have the properties more equally distributed over the communities, in real life, due to property rights, history and culture it seems impossible.

Although the 'poor' don't have their own land, maybe they could give these 'poor' people some rights on the forest area, so not only on the products, but also on the land. When people are responsible for something of their own, they will take much more care of it, then when it is something that is used by everybody. They can use the forest area, but they have to make a management plan for the future which has to be approved. With this you make sure that they will

* the 'poor' class consists in this chapter of the 'poor' and 'very poor' class

use the forest wisely and in a sustainable way. And also that forest patches can't just be turned into farmland. When there are good management plans of the forest areas it can also slow down big multinationals who are already marching up.

Another option which is already introduced in other developing projects is starting a micro credit system. Everybody who needs it can get a loan from 'the bank' to start their own little business. They have to write a business plan so it is sure that the plan is realistic. With the profit they make with their business they have to pay back the lend. A good example is the building of beehives. When these people learn how they can make good, sustainable beehives they can make their own business out of it and sell their beehives to the richer classes. Next to beehives there might be more utensils which can be made out of forest products. It is important that the 'poor' can add value to the NTFP's before they sell them.

At this moment in the project area, the 'poor' class has to work for the 'rich'. Because the 'poor' are desperate and have no other options so the 'rich' can really exploit them. There are enough 'poor' people who need work, so they can let them work hard for a low wage. Therefore it might be an idea to arrange a minimum wage, when the 'rich' are forced to pay their laborers a minimum wage it is much more fairer. (But maybe this option is not necessary, because the wages will go up naturally). When the 'poor' people get more sources for income, due to development options for poverty alleviation, they are not so dependent anymore on the labour support of the 'rich' and while the 'rich' don't want to do the hard work themselves a natural competition will be created in which the wages will rise.

Next to alleviating poverty of the 'poor' it was also a goal to have a sustainable forest management. The forests are nowadays really threatened by deforestation, of course deforestation is not only in this zone a problem, but is recognized as a problem all over the world. The main reasons of deforestation in this zone is by the communities for farming land and using logs for making beehives and by the bigger companies for timber harvesting or plantations like in this zone the company East Africa Tea Plantation. Solutions for deforestation are very difficult, because most of the time the economical value wins it from the ecological value. Therefore good rules and strict laws are necessary. The big companies can be stimulated to produce and harvest in a sustainable way, also they could be made some arrangements that they are not allowed to enter the forest in a radius of a certain distance around the *Kebeles* and *Gots*. For the beehives other options have to be found, other materials like for example bamboo. It is possible that bees have to get used to new material so in the beginning this can have a serious impact on the honey production. During the PRA studies the participants (for example in *Uwa Kebele*) responded that NTFP's are very critical without which their livelihood will be hampered. In *Uwa Kebele* it was found out that about 27% of their livelihood is dependent on the forest and/or NTFP resources. This seems very positive but of the 27%, 16% is for honey. This means that only 11% is for all the other NTFP's and so NTFP's except for honey, are not that important in their lives. Next to good rules and strict laws another important option is education, people have to learn what the importance of the forest can be and how they can continue their livelihood strategies without really harming the forest, so in a sustainable way. A solution the own communities already came up with is that they have plans not to give forest lands for cultivation for new generation, rather they want to share from their own farmlands.

<u>The 'medium' and the 'rich' class</u>

They are already wealthier then the 'poor' classes and therefore poverty alleviation is less focused on this group. Of course these people are also important for the whole community and therefore they can help to alleviate poverty in their environment. For example by sharing their knowledge on agriculture, marketing, honey production, etc. Of course these people won't just give away their knowledge. An idea is to make educational courses of it. The 'rich' class acts like a teacher and they have to teach the 'poor' class what they know. In this way you give the 'rich' people some power and respect which is good for their ego. And the 'poor' can benefit because they lack the skills and knowledge.

In some *Kebeles* the World Rural Development Coordination Office also provides natural resources conservation education to the rural communities, this has to be kept and stimulated.

To help this class to alleviate their poverty, we should look at the honey production, because this is their main source of income. To increase the honey production it is wise to look at the harvesting stage. At the moment in the high ecological zone every harvesting period the honey is harvested, this means that the 'houses' of the bees are disrupted often. This results in a stressed bee population which can lead to a lower honey production. Maybe when the number of harvests is reduced and time between harvesting is increased the bee populations are less disturbed, then honey production can increase.

Another very important option regarding honey production is safety. Nowadays a lot of men are injured or killed by hanging up or harvesting beehives. As was said before, the 'poor' class consists for a large part of woman-headed households or disabled people. When you make beekeeping much safer, less men will die or get injured and therefore the amount of woman-headed households and disabled people will decrease.

The fact that the local people don't benefit enough from forest products is because there is no sufficient awareness of the market situation. For them there is a lack of information on potential markets and marketing channels, also they do not have the (financial) capacity to take their products to markets further away where profits are higher then on their local markets. This is mostly due to the fact that the NTFP's are harvested in the remote forests, where infrastructure is hardly present (Transporting from the forest to the market is too expensive). A possibility is to open up the area and improve the infrastructure, with better ways and better transport facilities it might be profitable to transport the NTFP's from the forest to the market, the negative side of this option is that the area is opened up. This makes it easier to enter the forest and this makes overexploitation and illegal harvesting a real dangerous risk.
Now to the problem in transport and distance, there is also the problem of the unpredictability of most of the non-timber forest products, owing to this it is very difficult to find a sustainable market for it. Domestication of the products could be a solution to this problem, but for domestication you need land and obtaining land was also a problem.

5.2 Low Altitude Zone

<u>The 'poor' (and 'very poor')</u>
In the low altitude zone the same development options are counting as in the high altitude zone, regarding the NTFP's.

Next to all the modern problems nowadays, there is still the history and culture that plays an important role in this area. The indigenous communities have lived in symbiosis with the forest for so many decades that they are the best informed on what the forest can offer in products and services. These people are respected for their knowledge, especially the elder ones and of course the clan/religious leader of the community. This leader recognizes a unique cultural and religious value to the forest resources and while the people listen to him and respect him he would be the perfect person to make the link. There is also a big social control in the area, people who attain illegal activities like illegal harvesting on other ones property or breaking the rules are closely monitored and cursed by the local elder. These elders are important in the case of teaching others the cultural, historical and religious function of the forest.
The people in this zone are religious and maybe this can also be seen as poverty alleviation. Not in a financial way but more as an enlightenment in hard/dark times.

<u>The 'medium' and the 'rich' class</u>
In the low ecological zone, coffee production is the most important source of income. To increase the coffee production it might be an idea to combine coffee and honey production. When you have beehives in your coffee plantation and bees are flying over your coffee all the time, the fertilisation of your coffee plants is much better and coffee bean production can increase.

Another important solution is the adding of value to the products. We have already seen it as an option on the NTFP's, but it can also count for the production of coffee and also honey. Now only the raw materials are brought to the market, but it would be better if there are more steps of the realization of the final product (production process) already done in the Kebele.

6. Conclusion / Discussion

It is clear that NTFP's are used in different ways, in different groups and in different economic classes. NTFP's are not the main source but are seen as additional products or safety nets when no other possibilities of gaining money are present. The major part of the used NTFP's are honey and coffee, which are more domesticated then real 'wild', other real 'wild' NTFP's are used on a smaller scale and only by the poor people or for own household consumption. The local communities can't benefit enough from NTFP's due to lack of knowledge and lack of marketing, simple solutions for this problem are not at hand.
It can be stated that it is very difficult to find the right development options, firstly because everything is linked together. One intervention has not only one effect, but can affect a lot of other things. What for one problem seems as the ideal solution can be the worst nightmare for another. Second problem is that not everybody wants the same, everybody has its own wishes and everyone wants to earn, not to give up. Third problem is what is always the problem, namely money, how could you prevent people from doing something with which they can earn a lot of money?, how can you let them see the ecological value when all they are interested in is the economic value?
Another fact what makes it so difficult to find good development interventions and sustainable options is the Western world. The high amount of logging and the large parts of deforestation is not because the Ethiopian people need that much wood, but because the western world is asking for it. The remaining forests on the planet are destroyed for us, not for the very poor people.

The PRA studies were a good source of information, although not all the interviews and workgroups were the same (think about the amount of participants and people of different classes), which made it more difficult to compare the different Kebeles and Gots. Also you have to take into account that the data you work with are thoughts of people, which make them for a part subjective.

The most important thing now is to work on the NTFP-based development options, of course in cooperation with the local people. Let them know what the plans are and discuss with them what can be done in the future, because although there is lot of poverty in the world and money and power will always be the two most important words, it is possible to make the lives of the poor a bit better.

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