Socio Economic Role of Non Timber Forest Products in Silti Woreda, Silte Zone, SNNPR of Ethiopia

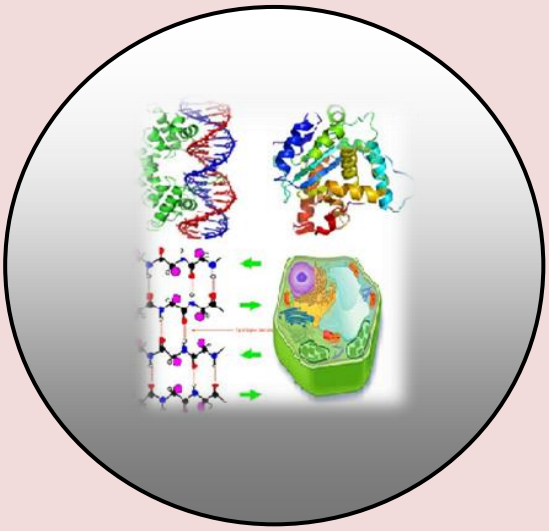
By

Gemechu Fufa Arfasa and Yasin Sebre

ISSN 2319-3077 Online/Electronic
ISSN 0970-4973 Print

Index Copernicus International Value
IC Value of Journal 82.43 Poland, Europe (2016)
Journal Impact Factor: 4.275
Global Impact factor of Journal: 0.876
Scientific Journals Impact Factor: 3.285
InfoBase Impact Factor: 3.66

J. Biol. Chem. Research
Volume 37 (1) 2020 Pages No. 132-142



Journal of Biological and Chemical Research

An International Peer Reviewed / Referred Journal of Life Sciences and Chemistry

Indexed, Abstracted and Cited in various International and National Scientific Databases

Published by Society for Advancement of Sciences®

J. Biol. Chem. Research. Vol. 37, No. 1: 132-142, 2020
(An International Peer Reviewed / Refereed Journal of Life Sciences and Chemistry)
Ms 37/01/1022/2020

ISSN 2319-3077 (Online/Electronic)
ISSN 0970-4973 (Print)

G. Fufa Arfasa
http:// www.sasjournals.com
http:// www.jbcr.co.in
jbiolchemres@gmail.com

RESEARCH PAPER
Received: 13/12/2019 Revised: 29/02/2020 Accepted: 01/03/2020

Socio Economic Role of Non Timber Forest Products in Silti Woreda, Silte Zone, SNNPR of Ethiopia

Gemechu Fufa Arfasa and Yasin Sebre
Jimma University, PO box 307, Jimma, Ethiopia

ABSTRACT

Developing countries non timber forest products (NTFPs) selling is major source of income many rural poor. Large amounts of NTFPs are harvested and traded every year from SNNP region. Due to limited information, lack of cooperation and coordination among stake holders, there are many challenges in NTFPs. This research was carried out to identifying NTFPs types used, examine primary data were collected through questionnaire, interview, key informant survey, group discussion and direct field observation from the study area, secondary data were collected from written documents. The quantitative data were analyzed by using percentage and frequency, summarized by tables. The qualitative data were narrated and presented inform of tables. The results shows that commonly collected NTFPs for income generation were fire wood, construction materials, wild food and medicinal plants. Crop production 55.4%, livestock rearing 13.3%, NTFPs 24,1%, and off farm 7.2% holds the average annual income for the local Community. The average annual income obtained from NTFPs in Birr 2040 was derived per individual per year according to Wachogotokebele agricultural office (2017). Also it was third income producer next to crop production and livestock rearing for local community. In addition, collection and marketing of the NTFPs was dominated by men. Access to NTFPs was semi-open with some allowance and restricted NTFPs. Generally NTFPs play a crucial role in the study area where there is shortage of agricultural food production in the study area. Also is better to include NTFPs as an integral part of the community forest management to support the rural livelihood.

Key words: NTFPs, Economic role, Gender situation and NTFPs types.

INTRODUCTION

Back ground

The term forest product immediately brings to mind wood and wood based products, but there are equally important NTFPs that are collected from the forests. This includes all botanicals and other natural products extracted from the forest other than timber, known as NTFPs. They are of critical importance of livelihoods of rural communities and in some situations accounts for a significant share of house hold income (FAO, 2003). In early times the term for forest produce defined as "all material yielded by a forest state". These produces are further classified in to major forest products. While other items received from forests are called minor forest products that gives the impression of low importance (Tiwari, 1993). With the time the value of these NTFPs has become increased. An increasing awareness of richness and diversity of these resources has been observed.

Fuel and charcoal are some of the woody forest products that are extracted for household consumption and for markets, are produced both household use and income generation (MelcaMahber, 2007). Many NTFPs are used to meet household needs for food, construction, medicine, tools and household equipment. Depending on socio economic status of the households NTFPs play an important role in food security, mostly through income generation. For the poorer households, NTFPs provide a safety net especially through the open access condition of some of the products, (NTFP R and D., project, 2005). The study aims to assess socio economic contribution of NTFPs, gender aspect in relation to their collection in addition to their types that are found in the study area and the result of this study found that NTFPs is the third most annual economic contributor next to crop production and livestock rearing. It is also concerned with fire wood, construction materials, animal feeds, food and medical plants where most types are collected from NTFPs. In Ethiopia and its various sub regions like (SNNPRS) there is a lack of new and clear or information on the status of socio economic role of NTFPs on their role as well as on their associated actual and potential to the people.

Statement problem

In Ethiopia and its various sub regions like (SNNPRS) there is a lack of new and clear or information on the status of socio economic role of NTFPs on their role as well as on their associated actual and potential to the people. Socio economic role is absent because of lack of systematic recording. So these study were conducted to overcome this problem.

Objective

General Objective

To explore socio economic role of NTFPs in Silti Woreda, Silte Zone, SNNPR, Ethiopia

Specific Objective

1. To examine the importance of socio-economic for (NTFPs)SiltiWoreda, Silte Zone, SNNPR, Ethiopia
2. To examine the economic contribution of NTFPs Silti Woreda, Silte Zone, SNNPR, Ethiopia

Research Questions

The study where to is attempted to answer the following questions

1. What are the types of NTFPs used in the study area?
2. Does NTFPs have economic contribution in the study area an extent of economic contribution?

Significance of the study

The study aims to assess socio economic contribution of NTFPs, the aspect in the relation to their collection in addition to their types that are found in the study area. These assessments was also assist concerned bodies for their managerial activities to be achieved for better use of NTFPs through providing knowledge about the socio economic role of NTFPs and by serving as guidance. This in return to improves the socio economy of the communities in the study area.

LITERATURE REVIEW

Definition and Meanings of NTFPs

The NTFPs that enter India as raw material are collected, ported, taxed and traded as a discrete group of products referred to Nepali and Jaributi. A close definition of Jaributi is "medicinal, aromatic and spices of plants". It also equates to the officially used term "minor forest products" all of which are taxable if collected from government managed land and traded in the region.

In early times the term for forest produce defined as "all material yielded by a forest state". These produces are further classified in to major forest products. While other items received from forests are called minor forest products that gives the impression of low importance (Tiwari, 1993). With the time the value of these NTFPs has become increased. An increasing awareness of richness and diversity of these resources has been observed. Subedi (1999), tried to define NTFPs as all biological origin other than timber, fuel wood and fodder from forest, grass land or any land under similar use. The examples of NTFPs includes medicinal aromatic plants, bamboo, and rattan nuts, fruits, berries, grasses and lives, resins, insect and insect providers, wild animals and birds.

The Plotkin and Famolare (1992) ascertained it that by stating there was a big concern on how to address the increasing and expanding deforestation of tropical forest. At that time ecologists tried to answer how to make forest resources economically attractive to local people to reduce deforestation. NTFPs where among options considered best strategies to raise income for local people from forest. Objectives of developing and conservation are basically linked. For instance, EARO and IPGRI (2004) argued that contribution of NTFPs to livelihoods of rural communities is likely to persist as long as the resources are exploited on sustainable basis this has led in a global move towards developing management of natural forest for the benefits of local communities.

NTFPs in Africa

Although NTFPs play a major role in rural economy of Africa information on their overall contribution is patchy and incomplete at best, except for a few species and products of commercial importance (FAO, 2003).

As a source of food increased demand has not necessarily led to improved management including domestication, a substantial proportion of products are collected from the wild, hence resource depletion is a major problems (FAO, 2003). Africa has not been able to take advantage of its wealth of raw material and traditional knowledge and investigating on processing undermining opportunities for employment and income generation, concluded that the main effect of harvesting whole individual would be via genetic differentiation and indirect selection. Throughout Africa, numerous medicinal plant species are becoming increasingly scarce due to the rise in trade to meet the demand from growing urban population (Marshall, 1998).

NTFPs in Ethiopia

Due to its varied ecological and climatic condition, Ethiopia is home to some of the most diverse flora and fauna in Africa these plant can also act as wind break and thus reduces loss of soil carbon by wind interpret rain drops by their widely spreading canopies, reduce speed of surface run off and thus reduces soil erosion effectively their by stabilizing soil and protecting soil carbon (Habtemariam, 2007).

Role of NTFPs for rural economy and poverty reduction

NTFP is the component of the forest systems that exist in natural and are generally not cultivated. NTFPs are plant or plant part that have a perceived economic or consumption value sufficient to encourage their collection and removal from forest. It can also be referred to as all the resources or products that may be extracted from forest ecosystem and are utilized within the household or are more tested or have social, cultural or regional significance (FAO, 1990).

These includes plant and plant material used for food, fuel, storage, and fodder, medicinal cottage and wrapping material, biochemical, as well as animals, birds feather, reptiles and fishes. NTFPs which are harvested from within and on edges of natural disturbed forest, may be or part of a living or dead plants, lichens, fungi, or other forest organisms. It therefore, represents a diversity of potential products sought after by wide variety of peoples on a continuum of scale and intensities (FAO, 1990). A part from timber and fire wood that are conceived as major forest products, non timber forest products (NTFPs) includes all product obtained from forest, NTFPs indeed play a very significant role in the rural economy in terms of providing employment income potential and life support sustenance (Negietal, 2011).

Clark and Sunderland, 2004 generate additional employment and income and offer opportunities for NTFPs based enterprises, moreover, NTFPs are more accessible to the poor contribute to foreign exchange earnings and support biodiversity and other conservation objectives (Andel, 2000, Arnold and Ruiz perez, 1998; Marshall et al, 2005; Charile and Sheona, 2004).

Marketing of NTFPs

Marketing is the process of exporting potential customers and distributing the products at a profit (Lecup, 1994). It provides a set of tools for peoples to efficiently and economic value to the resources and products made of it. Marketing is vital not only to medium and large scale industrials enterprise, but also in helping small family and forest communities to enable them to switch to more sustainable and profitable enterprise from a subsistence economy. There is a network of NTFPs marketing, comprising the various agents based at different location of Nepal (Edward, 1995).

This network is a facility; NTFPs marketing through different areas of Nepal from local collectors to the exporters in the capital city of Kathmandu to local and roadside traders are the key players in the NTFPs marketing because they have more information and knowledge about sources of NTFPs and close relationship with collectors.

Domestic Marketing

There are different level of intermediate between the sources and the markets through which raw material is normally handed (Edward, 1996). They are village traders, roadside traders and others, each handled progressively by large volume of trade. Current local traders bring product harvesting from nearby forests and pastures to village level who stockpile the material and resell it.

International Marketing

In international markets, NTFPs are traded under the "Herbs and Species" category and they follow the same trade structure and distribution channels of herbs and species. Very few dealers and brokers deal exclusively with medicinal herbs Subedi, (2001). In recent year direct trade between producers/exporters in different region of Ethiopia (mainly medium and large scale) and processors in consuming countries is increasing. The major herb processors as well as large trading companies establish close relationship with their main suppliers through visits and provide technical assistance services on such matters as harvesting and production processors Berhanu T and Olani Writu (2004).

Socio economic role of NTFPs

Household Strategies

During the wider analysis of the case comparison project, Belcher et al., (2003) identified a typology of livelihood strategies for NTFPs and noted clear difference among the three continents in the reliance on forest products by rural and urban household and importance of such products to them. In our case studies from Africa, the majority of the products contribute is less than 50% to household income. Never the less, in many cases this contribution to household income is particularly important at times of economic needs, such as the payment of school fees (Human 1992). The three specialized cases are characterized by the respective product providing the greatest contribution to the household economy in the context of relatively high integration to the cash economy.

Gender Issues

The gender differentiations of gender surrounding NTFPs in Africa is particularly interesting and the case studies presented in highlight the increasingly important role of forest product in rural livelihoods, particularly for women. Some industries are entirely male dominated, for example wood carving industries (Clark 1994). Women play an important role in the marketing and final sale of NTFPs.

Equity Issue

Issues of NTFPs is, commercialization, undoubtedly underpinning the issue of equitable distribution of benefits (Neumann and Hirsch 2000). Browder (1992) draw on available research from Amazon and suggests that collecting NTFPs does not necessarily greatly benefit rural livelihoods and that living standard of households that rely on forest products compare to poorly with even the major socio economic norms of rural Amazon. Southgate et al, (1996) suggests that, even for highly commercialized products, the greatest share of the domestic marketing (Dove 1993), who suggests that the more successfully the resource or the development, the more likely it is the external political and economic forces will become involved less likely that is local people that will be able to retain control.

Cultural Issues

NTFPs values not only go to the market value however cultural, social and spiritual attributes also add to the value of the products. Through not easily quantified, these characteristics may in some cases be as important to peoples as economic value (Davisdon_Hunt et al., 2001), an issue that is often overlooked. This is particularly general cases when compared to studies that the products have been traded for decades. For example, one research noted under study limitations the way to meet a chief is to introduce you with a gift of at least 10 coal nuts. These producers white followed so as to gain the villagers, corporation and to be seen as showing respect.

MATERIAL AND METHODS

Description of study area

Silti Wareda is found in South Nation Nationality and Peoples state. It is located 153 KM from the capital city our country, Addis Ababa towards south direction and 23 KM from worabe city towards north direction butajera city south direction. Silti woreda is bounded by gurage zone towards northern direction, and lanfuro and dalocha towards of southern direction, Oromo region towards of eastern direction and also alicho towards of western direction. The total population of Siltiworeda is 177249. This woreda have 34 kebeles Siltiworeda agricultural offices (2019). In the woreda wachogoto Kebele is one of the kebeles. The wachogoto Kebele has altitude of 1500 to 2000 m above sea level. The total population of wachogoto kebele is 2271 (Agricultural office. 2019). From this, the number of female is 1179 and the number of male is 1092 (silti agriculture office 2019).

Climate

The climate of the study area is categorized under Winadega agro climatic condition. The Kebele is characterized by medium climatic condition with medium distributed rainfall pattern. The annual average temperature of the area ranges from 16.5-26.5 degree Celsius. The area is warmest from December to February and coldest from March to September. The annual rainfall of the area is 1500 to 1700mm (national meteorology agency branch staff, 2018).

Soil

clay soil is the dominant soil type that is estimated to be around 40% of the total study area and silt soil is estimated around 35% and the remaining 25% estimated to the sandy loam soil (silte agricultural office 2019). In the study area cultivated and uncultivated lands, grazing land, forests and bushes are exist. In the area farmer plant agricultural crop like maize, vegetables, sugar cane, mango, banana, etc.

Research design

Survey research method was used to carry out the assessment due to its suitability for gathering description into attention. Different types of survey method was used during research design such as descriptive statistics, percentage, tabular, graphical and the like

Method of Data Collection

Primary Data

Primary data sources was used in order to get first hand information from respondent and it were help researcher in providing information for specific purpose of addressing the problem at hand so that questionnaires was prepared and distributed to sample respondents to gather necessary information for the study and interview was conducted with participants. We was gather data formally through semi-structure questionnaires that fitted out through face to face and direct interview of respondents. In addition, was gathered informally through contacting participants of the study area, through group discussion,

Secondary Data

Secondary data was gathered through reviewing, examination of documents, reports and records of published documents from woreda agricultural office. It is the main source of information and these data are available and they are inexpensive and of course obtained quickly.

Different data method is used in the study area, like Focus group discussion, interviews, and questionnaires those are secondary data collection methods, from this was used questionnaires data collection.

Sampling Size and Sampling Procedures

The total population of the Keble is 2271 from these1092 were male and 1179were female.

The numbers of household in wachogotokebele are 512 but total number of farm household was 480 respondents. Then we was conduct the entire household in the Kebele, was selected 83 respondents by using simple random sampling to know the total households in the Kebele for the purpose of data collection by using the following sampling formula.

To get sample size, Sliovian's formula (1967) will be used.

$$n = \frac{N}{1 + (N x e^2)}$$

n = sample size
N=total population
e = level of precision (10%)
$n = 512/1+512(0.1)^2 = 512/5.12 = 83$
n = 83
The total amount of household is 512 from this we are used 83 respondents. Our sample size is 83 percent then we was used 83 respondents.

Analysis and Interpretation
The data analysis process was carried out after collection of the required information from primary and secondary sources. The qualitative and quantitative data was analyzed different methods. Qualitative data was analyzed by interpretation and narration and Quantitative data was analyzed using descriptive statistics, percentage, tabular, graphical and the like. Then the data obtained primary source or direct interview from the respondent interview method we was used during data collection in the study area.

RESULTS AND DISCUSSION

Distribution of Respondents

Gender Distribution of Respondents

The total amount of household is 512 from this we are used 83 respondents. Our sample size is 83 percent then we was used 83 respondents.
As could be seen from the table 1, about 51.8% of the respondents were male and the remaining 48.2% of the respondent were females. This indicates that males are more participated on NTFPs than female because of most of time female is tied to home work in case of this females are less participate in NTFPs.

Table 1. Gender/Sex distribution of respondent.

Sex	No of respondent	Percentage (%)
Male	43	51.8
Female	40	48.2
Total	83	100

Source: Own survey in year 2019

Age of the Respondents
As we seen from the table different respondents are different age classes, the respondent are aged between age class of 20-30, which accounted 32.5%, age class between 31 - 40%,are accounted 31.3%, aged between age class of 41 - 50 accounted 20.5%, above 51 age are accounted 15.7 %. This shows that the larger percentage of the respondent (32.5%) from the selected sample size were under the age of 20 - 30, those were the major contributors on NTFPs.

Table 2.Age distribution of the respondent.

Age of the HH	No of HH	Percentage
20-30	27	32.5
31-40	26	31.3
41-50	17	20.5
Above 51	13	15.7
Total	83	100

Source: Own survey in year 2019

Distribution of respondents by marital status
This indicate the 24.1% of respondents were single; 55.4% of the respondents were married, this group includes the most influential people and decision makers at both the village and household levels. While it is important to consider this influential group, care needs to be taken during planning of collection of non - timber so that other groups are not marginalized. In addition to this 13.3%were divorce and 7.2 % of the respondents were windowed.

Table 3.Distribution of respondent by marital status.

Marital status	No of respondent	Percentage (%)
Single	20	241
Married	46	554
Divorced	11	133
Windowed	06	72
Total	83	100

Source: Own survey in year 2019

Distribution of Respondents by Family Size

This is indicated table 4, 13.3% of the respondents have 1-3 family size, In addition, 55.4% of the respondents have a family size ranging 4 - 8 indicating that as they have better man power or labor. On the other hand, 24.1% the respondents have 9-12, in addition,12 above family size have maximum potential in any activity they are 7.2%. Generally, this table is show the relationship between family size and NTFPs activities. To collect or harvest NTFPs is required high labor. As the number of family size increases and also labor force increases, because of there are many adults and man power who are involved in NTFPs to increase their livelihood in a better way.

Table 4.Distribution of respondent by family size.

Family size	No of respondents	Percentage
1-3	11	13.3
4-8	46	55.4
9-12	20	24.1
Above 12	6	7.2
Total	83	100

Source: Own survey in year 2019

Distribution of Respondents by education level

The respondents of the study area are classified in to two categories based on their status of education level, which is literate (include; certificate and completed primary school) and illiterate. 62.5% were uneducated and the remaining 37.5% were educated.

Table 5.Education level of respondents.

Education level	No of respondent	Percentage (%)
Illiterate	43	51.8%
Literate	40	48.2%
Total	83	100%

Source: Own survey in year 2019

Socioeconomic characteristic of House hold in the study area

The age of the respondents ranged from 18 up to 71 years. The majority 98.1% were in their productive working age of up to 65 years. While only 1.9% of the householders were headed by men holder than 65 years. Among sampled house holds 55.4% were married, 24.1% were single, 13.3 divorce and 7.2 windowed .The majority of the sampled households 62.9%were born at the study area and the remaining 37. 1% are from other highland parts of Ethiopia. The educational level of the majority of the respondents 51.8% were illiterate or unable to read, write, were as the remaining 48.2 % were literate able to read and write.

The livelihood activities of the house hold in the study area include; crop production, animal production, forest related activities like NTFPs and off farm activities such as cart and labor.

Table 6. Income sources of Surveyed HHs.

Type of income	No of respondent	Percentage %
NTFPs	20	24.1%
Livestock	11	13.3%
Crop production	46	55.4%
Off farm income	6	7.2%
Total	83	100%

`Source: Own survey in year 2019

In the study area, maize, tomato, pepper peanut, papaya, mango and banana were found to the major crop types cultivated. Tomato and pepper were dominant staple food crops in the area and their production were the main cash crops. Annual house hold income from crop production constituted 55.4% of the total hold income. Non timber forest production 24.1%. Cattles such as, ox, caw, goat, sheep and poultry are the major types of the livestock reared in the study area. Livestock constituted 13.3% of the total house hold income. Off - farm activities contributed 7.2% of the total annual house hold income. Crop cultivation is done by oxen plough and hand by using back hoe.

Types and commonly collected NTFPs

Forest is an important source of NTFPs for commercial and subsistence use in the area. About six types of NTFPs that serve different house hold needs have been reported by the respondents(Table 1), as the surveyed households and direct field observation. The following NTFPs were available and collected.

Table 7. Use categories of Valuable NTFPs collected by households and their role.

Use categories	Examples	Frequency of respondents
NTFPs for foods	Wild vegetables'	50
NTFPs for fuel	Fire wood and charcoal	59
NTFPs for construction	Poles and grasses for house construction, fencing, for wooden bridges and others	59
NTFPs for animal feed	Grasses and herbs available at rainy time	58
NTFPs for materials	Furniture, such as tables, chairs, etc	46
NTFPs for medicine	Desert lemon	58

Source: Own survey in year 2019

The responses based on category of valuable NTFPs collected by households. About 86.7% of the respondents pointed out that there is an increase in forest cover of the area, which they also foresee to continue in the future. This respondents attributes the forest enhance due to the good management of the forest and its NTFPs, this is due to reduction of population pressure from the area and by controlling any activities which may damage the forest or any types of NTFPs in the study area. According to the response of the local people there were no refuges and there is rehabilitation program in the area. Among the sampled households, 13.3% of the respondents indicated that population pressure, expansion of farm land, deforestation and drought (climate change) were some of the main reasons for the decline in availability and yield of NTFPs.

According to table showing NTFPs use categories, some are commonly collected for income generation, some were wild vegetables like molokia and okla, fuel wood and charcoal, grass materials (like tables and chairs). These were collected from farm lands, and from uncultivated wood lands of the study area. Based on this information, two of the commonly collected NTFPs types were namely fire wood and construction materials. According to the response of the collectors of households, NTFPs types were collected in different extent. This shows that approximately all house hold collectors were using fuel woods for home cooking, because of it's the only energy source used by every HHs in the study area, Shimikebele agriculture offices(2018)

Similar to fuel wood, construction materials were collected by almost all HHs due to lack of other sources of constructions materials (98.3%) followed by animals feeds and NTFPs for medicine(96.6%). This was cleared by direct field observation showing that most of these types were found on streets and road sides for income generation in the study area.

Economic contribution of NTFPs for livelihood of the people

According to the response of the respondents the total annual average income from non timber production (NTPs) is 2040 birr. In general, NTFPs is the third major source of livelihood and contributes to 8% to the total annual household income aggregated across all wealth classes next to crop production, 77.1% of the respondents emphasized the importance of forest to their livelihood as a source of income in terms cash and household subsistence few of the NTFPs are use for cash income generation most NTFPs are used at house hold for households subsistence Shimikebele agriculture offices (2018).

Gender based aspects in collection of NTFPs

Gender plays a key role in the degree to which local people depend on NTFPs as women's and men's right and responsibilities, in general, the importance of gender issues depends on the extent to which differences between women and men influences resource use and control patterns, decision making power, and livelihood strategies in the area. As surveyed households responses for gender is based on the property of NTFPs which were collected in the study area. About 80% of the respondents said that both men and women were involved in collection of NTFPs, but the type of NTFPs the types of collected by men and women were different as we gate information from the respondents through focus group discussion. These due to some NTFPs which are beyond the capacity of human and there are some examples given by the respondents like charcoal and grass mowing of done mostly by men group due to production of charcoal is allowed from only any dried types of trees and also as the respondents informed, grasses are also other NTFPs that were collected by men due to physical matter of power as charcoal production. Fire wood, grass, wild fruits and some traditional medicine were commonly collected by women while 98.3% responded that men's were main actors in collection of NTFPs. Based on the field observation, interview and focus group discussion the response of the majority respondents is that men were dominant actors specially in collection of NTFPs like honey, charcoal, construction materials and grasses.

In Africa, fairy substantial differences in the ways in which men and women depend on and control NTFPs have been observed.

Assess right to NTFPs

Rural people depends on forest resources is influenced by were they are physically situated in relation to forest (location), as well as the governing institution that restricts or enables their access to these forests. Access to NTFPs was open to the households. This means in the case of people in the study area collects most of the available NTFPs at any time and quantity they desire with some restrictions and allowance on a few NTFPs types. According to responses of the majority of households, 89% are some restriction and allowance on a few NTFPs by the government. According to the response of some respondents of the surveyed households, 10% don't have any knowledge on existence of allowance and restriction on NTFPs at all. At the same time the majority of the households listed restricted and allowed NTFPs types and they provide reasons for presence of restriction and allowance of few NTFPs.

CONCLUSION AND RECOMMENDATION

It is clear that local communities have been very creative in devising forest derived livelihood systems in which the production of essential NTFPs is actively found. The livelihood of the households in the study area depend on arrange of activities in which NTFPs are among the major role player after crop production and animal rearing. NTFPs collection is the third major cash income source to the study area particularly for the poor as they have less alternative source of income. The use of these products adds crucial dimension to diversified livelihood based, and acts as safety net particularly when there is a short fall in agricultural production to minimize risk and fill the gap of food shortage FAO, (1995). Based on the respondents the major used and collected types of NTFPs which are found in the study area were fire wood, construction materials, wild food and medicinal plants like desert lemon.

Some of them were identified us commonly collected for income generation. Also the study shows that annual income generated from NFPs collections is still less to satisfy the well being of the household and slandered of living. It was found comparison NTFPs cover smaller portion of mean annual income than crop and livestock production.

Based on gender aspects in collection of NTFPs indicated that men were the main actors in collecting NTFPs. As well as assessing rights to NTFPs in the study area was semi – open with some restriction and allowance on few NTFPs types.

The study result showed that the local people of the study area depend on a range of income sources for their day to day activities, like crop production, animal husbandry, NTFPs collection and nonfarm activities are the main livelihood strategies of the households. Dependence on each diversified livelihoods activities has been observed under numerous case studies. For instance Ros – Tanened Wiersum (2005) indicated that extraction of NTFPs does not stand alone to support households but forms an integral component of diversified livelihood strategies of rural household in the tropics. They combine extrication of forest resources (NTFPs) with other livelihood activities to improve and sustain rural welfare.

Yet, the rural community also highly depends on the forest resources for livelihood; particularly NTFPs contribute a significant amount of income to rural annual households income in these study are the extraction of NTFPs make a significant contribution to the livelihood of the rural people, on average 24.1%NTFPs, of the total household income is the third most important contributor next to crop production 55.4% and livestock area rearing 13.3% and off farm 7.2%. FAO, (2003). Concerning the role of NTFPs in the total household livelihoods strategies; it provides subsistence good like fuel wood, grass, construction material, food and traditional medicines and charcoal as a source of cash income. They also serve as a safety net function (coping strategies) particularly during short falls in agricultural products which are parallel with researches findings by Byron and Arnold (1999) who showed the dependence on forest resources increases during period of a short fall in agriculture production. Similarly Pattanayak and Sills (2005) reported that commercial NTFPs can be an important natural insurance against unexpected agricultural risk. On average the contribution of NTFPs to cash income in the current study was 8% and this is comparable to many studies. Also, many study in Ethiopia reported a similar on even higher percentage up to 50% (e.g Arsema 2008; Neima, 2007).

ACKNOWLEDGEMENTS

Much gratitude goes to almighty God for the protection and care throughout my research. His bounteous blessing that flourished my thoughts and fulfilled my ambitions and my modest efforts in the write up and made this material contribution towards the deep ocean of scientific knowledge already existing. This thesis owes its existence to the help, support, and inspiration of many people. I gratefully acknowledge the immense contribution made by international journal of Biological and chemical Research for their facilitation and fruitful guidance during editorial time.

REFERENCES

Agbogidi, (2010). Ethnobotanical survey of the Non timber forest products in sapele.

Analysis Mizan Teferi and Hudde (2011). Ethiopia srsfiled Highland Ecosystems: and the case of the study research. Hingor, Indonesia: CIFOR. and Prospect: A from India. Retrieved on 8th June 2011.

Andel, T. (2006). Non _timber forest products; the value of wild plants, Netherlands.

Andel, T.V. (2006). Non_timber forest products: The value of Wild Plants. Aromas.

Arnold, M.J.E. and Perez, M.R. (2001). Can non timber forest products much tropical forest.

Belcher, B.M (2003). What isn't an NTFPs? International Forestry Review, 5:161_168. Brinkman, Willemine (ed.). 1989. Why Natural Forest are Linked with Nutrition, Health and Self Reliance of Villagers in North East Thailand: A Collection of Papers.

Bangkok: FAO. Campbell, J.Y. (Ed.). 1991. Case Studies in Forest Based Small Scale Enterprises in Asia: Rattan Match.

Making and Handicrafts. Bangkok: FAO. Campbell, J.Y. (ed.). 1991. Women's Role in Dynamic Forest Based Small Scale Enterprises: Case Studies on Uppage and Lacquerware from India. Rome.

Belcher, B.M. (2003). Forest products, forests and poverty redaction. Principal Belmont, CA.

BrhanuTay and Olani Wirtu (2004). Marketing study of NTFPs of Southwest in Bongers.

Campbell, B.M. and M.K. Luckert, (2004). Towards understanding the role of forest case study of OsunState.Educational Research and Review. Vol.1 (2),pp. challenge African Journal of Business Management Vol. 6(47),pp, 11635_conservation and development objective? Ecological Economics, 38:437_447.Development Research, Mumbai. International program for important support for Development Ethiopia.

MizanTeferi. Ethiopia: A Preliminary EARO (2004). Forest Research Plan, Forest, A. A. ecology, Mexico, pp. 13_40 Economic, 9:916_

EARO and IPGRI (2004). Conservation of genetic resources of NTFPs in Ethiopia: preceding enhancing livelihood of the investment potentials of Ethiopia, Addis Ababa, Ethiopia,.

FAO (1995). Non_woody Forest Products: Report of the international expert.

FAO (2003). Non_woody forest products. Food and Agriculture Organization

FAO (2004). Africa Forest: A View to 2020, Foresty Outlook Study for Africa, European.

FAO Food and Agriculture Organization for the Inited Nations (2003). Forestry.

FAO, (2003). Harvesting of Non_timber Forest Products. Rome: Food and Agriculture.

Forest Gary, L. and Kristin, K. (2005). Creating an indicator for Non_timbet forest Products.

Mahaptara, A. and Mitchell, C.P. (2011). Non_timber Forest Products Management Program. Making and Handicrafts. Bangkok: FAO. Campbell, J.Y. (ed.). 1991. Women's Role in Dynamic Forest Based Small Scale Enterprises: Case Studies on Uppage and Lacquerware from India. Rome:

Melca Mahber (2007). Forest of Sheka: Multi - disciplinary case studies on Land use.

Neumann, R.P. and Hisrch, E. (2000). Commercialization of Non_timber forest products Review Northeastern escarpment of Ethiopia. M.S.c. Thais A.A .U. India Ghandi.

NTFPs Randle Project (2005). Non_ timber Forest Products Research and Development of the first national work shop on NTFPs in Ethiopia, 5_6 April 2004 A.A,

Organization of the United Nations. Out look study for Africa: Regional Report Opportunities and Challenges.

Plotkin, M. and Famclare, L. (1992). Sustainable Harvest and Marketing of Rain forest Products Publication and CTA, the Netherlands.

Ruiz_Perez, M. and Beron, J.E.M. (1997). Current Issues in Non_timber Forest Products Research.

Tewari, D.D. (2003). Promoting non _timber forest products (NTFPs) to alleviate and Timber Forest Product and their Development potential. Forest Science, 45.to wads 2020. FAO Forest Paper 141. FAO, Rome. Urgent Need for Action.

Corresponding author: Gemechu Fufa Arfasa, Jimma University, PO box 307, Jimma, Ethiopia
Email: feragemechu@gmail.com