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## **Challenges and Prospects of Farm and Non-farm Livelihood Strategies of Smallholder Farmers in Yayu Biosphere Reserve, Ethiopia. A Qualitative Analysis**

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### **1. Introduction**

The economy of Ethiopia is mainly based on rain-fed agriculture which is the source of livelihoods for the majority of its population (CSA, 2008). The sector employs about 80% of the country's labor force and accounts for 60% of all exports. A recent report of the Ministry of finance and economic development of Ethiopia (2012) showed that contribution of the sector to the overall economy is estimated to be 41.6 % of the total GDP. The sector provides food for domestic consumption and raw materials for local manufacturing industries and export market. Although the agricultural sector plays an important role for the Ethiopian economy and livelihood of the majority, it is characterized by its subsistence farming, periodic drought and subjected to adverse conditions as a result of erratic weather conditions, environmental degradation, high population pressure and the recurrent occurrence of pests and diseases (Makombe, et al 2007; Kumbi & Berg, 2006). As a result, millions of citizens are left in need of food assistance every year. In general, Ellis (2001) summarized that farm based livelihoods are no longer able to provide a secure long-term livelihood for a number of reasons. Some of these include: land fragmentation at inheritance causing plots to become less viable for family food security, adverse environmental change that increase the risks associated with natural resource-based livelihood activities and declines in agricultural markets relative to non-farm wage levels. Such problems push small holder farmers to diversify their income in non-farm livelihood alternatives. Only little attention has been given in identifying the challenges and prospects of farm and non-farm livelihood strategies in sub-Saharan Africa in general and in Ethiopia in particular. This paper aims to assess the challenges and prospects of farm and non-farm livelihood strategies of small holder farmers in selected areas of Yayu biosphere reserve in Ethiopia; and draw some policy recommendations to enable small holder farmers lessen existing challenges and maximize their opportunities.

### **2. Objectives**

The general objective of the paper is to assess the challenges and prospects of farm and non-farm livelihood strategies of smallholder farmers in Yayu Biosphere Reserve, South-West Ethiopia

The specific objectives are:

- To present the current farm and non-farm livelihood condition in the study area

- To identify the main challenges of farm and non-farm livelihood strategies of small-holder farmers in the area
- To envisage the prospects of farm and non-farm livelihood strategies

### **3. Materials and methods**

Yayu biosphere reserve is one of the protected reserves registered in UNESCO, found in South-West Ethiopia. The study is conducted in two districts of Yayu biosphere reserve, namely: Yayu and Hurumu districts. Two villages from each district have been selected purposefully. Some of the criteria employed in selection of the villages include: the presence of forest-based farming system and the suitability of the area for multi-story cropping systems, the presence of farmers' field school and training centers and their access to infrastructure including road and transportation, market, agricultural and health extension services. The villages are: Bondo Megela and Wabo from Yayu district as well as Gaba and Wangegne from Hurumu district. Gender-disaggregated data has been collected both from primary and secondary sources. Secondary sources include government reports and research publications. Primary sources include data from focus group discussion, key informant interviews, and observation. A total of 28 FGDs, 6 key informant interviews, and participant observation were employed to collect in-depth gender-disaggregated qualitative data from four sites. Qualitative data was analyzed by summarizing narrations and further triangulating information to explain and justify findings of the research in the course of analysis.

## **4. Results and Discussion**

### ***4.1 Farm Livelihoods, main challenges and prospects***

The farmers cultivate diverse crops in the selected kebles of both Yayu and Hurumu districts. They do not solely rely on one cereal but many households cultivate a mix of two to four different staple items such as maize, sorghum, millet, wheat, barley and teff (*Eragrostis tef*). In addition they grow different pulses (beans, peas and chickpeas), root and tuber crops (potato, sweet potato, beetroot, carrot, anchote and enset (*Ensete venricosum*), vegetables (hot/green pepper, tomato, pumpkin, Ethiopian kale, cabbage, Tarro, Abrango, onion and garlic), fruits (avocado, banana, mango, papaya, orange, lemon, and jackfruit) and a variety of spices (ginger, Ethiopian cardamom (*Aframomum corrorima*), and turmeric. The most important cash crops in the area are coffee and khat (*catha edulis*); sugarcane and eucalyptus tree are also cultivated in the study area. Livestock and their products are also common commodities produced in the area. The main livestock include: cows (milk production), bulls, sheep and goats, poultry and apiculture. Maize and coffee are identified as dominant commodities produced with the aim of consumption and market, respectively. All focus group discussions conducted both with men and women indicated that coffee is the main commodity and ranked first in terms of importance for their livelihoods. Maize, vegetables and fruits have got the majority of second and third ranks in impacting on their livelihoods in all villages, respectively. Livestock and honey production have been also ranked as second and third priority in some villages particularly for better-off households. This is due to the fact that poor farmers hardly afford to invest the initial capital needed to purchase improved livestock breeds and modern bee hives for honey production.

Farmers have indicated that their livelihood is mainly based on subsistence farming. Despite its importance for their livelihoods, farming has been facing a number of challenges. The findings of the focus group discussions show that almost all focus groups affirmed that farming is a tough and demanding job. The main challenges of farming livelihoods listed during focus group discussions in all sampled villages are summarized as follows:

- Price for commodities produced: Both women and men group discussants prioritized low price of their produces as top agricultural constraint. They complained that they are not advantageous over the price of commodities they produce in spite of huge efforts they made to produce them. This is particularly true for coffee price. Price of coffee is determined by traders/coffee collectors and farmers feel that they are being exploited by traders and brokers in coffee marketing.
- Agricultural inputs: The majority of men discussants (about 80% of men) and 50% of women discussants pointed out that modern agricultural technologies such as synthetic fertilizer, pesticides, chemicals, improved seeds and breeds are becoming more expensive and hardly affordable to low-income farmers. In addition, farmers have expressed their dissatisfaction regarding the input delivery system of the village office of agriculture. Input distribution is often delayed and there exists also scarcity of inputs which made their farm business challenging.
- Land: Farm land is one of the scarce resources for farmers. Land is being fragmented as population is increasing. Men group discussants explained that it is one of the reasons for the low amount of production, which is mainly produced for household consumption.
- Diseases and monkey attacks: crop diseases particularly for vegetables and fruits are one of the obstacles for their farm businesses. In addition, all women and men farmers identified that monkeys are among the huge concerns of farming as they are damaging their crops. Due to this, men farmers are forced to spend much time and energy in patrolling their farm areas. Although the extent of damage varies from animal to animal, other wild animals such as porcupine, warthog and buffalo are also mentioned in damaging farmers' fields. This has been also identified as one reason why farmers are discouraged in irrigated farming.

Focus group discussions with men and women farmers have been also made regarding the future prospects of their farming business. Farmers elaborated that their livelihoods will not get improved in the future if they still continue their farm business as before. Farmers pointed out that lack of capital is one of the obstacles to involve in modern and mechanized farming or to engage in other non-farm businesses. Almost all farmers admitted that interest of their children to take over farming is low. Farmers themselves expect their children to be educated and engage in non-farm sectors or work in formal sectors in urban areas. A woman discussant in Wangenge village expressed her feelings as:

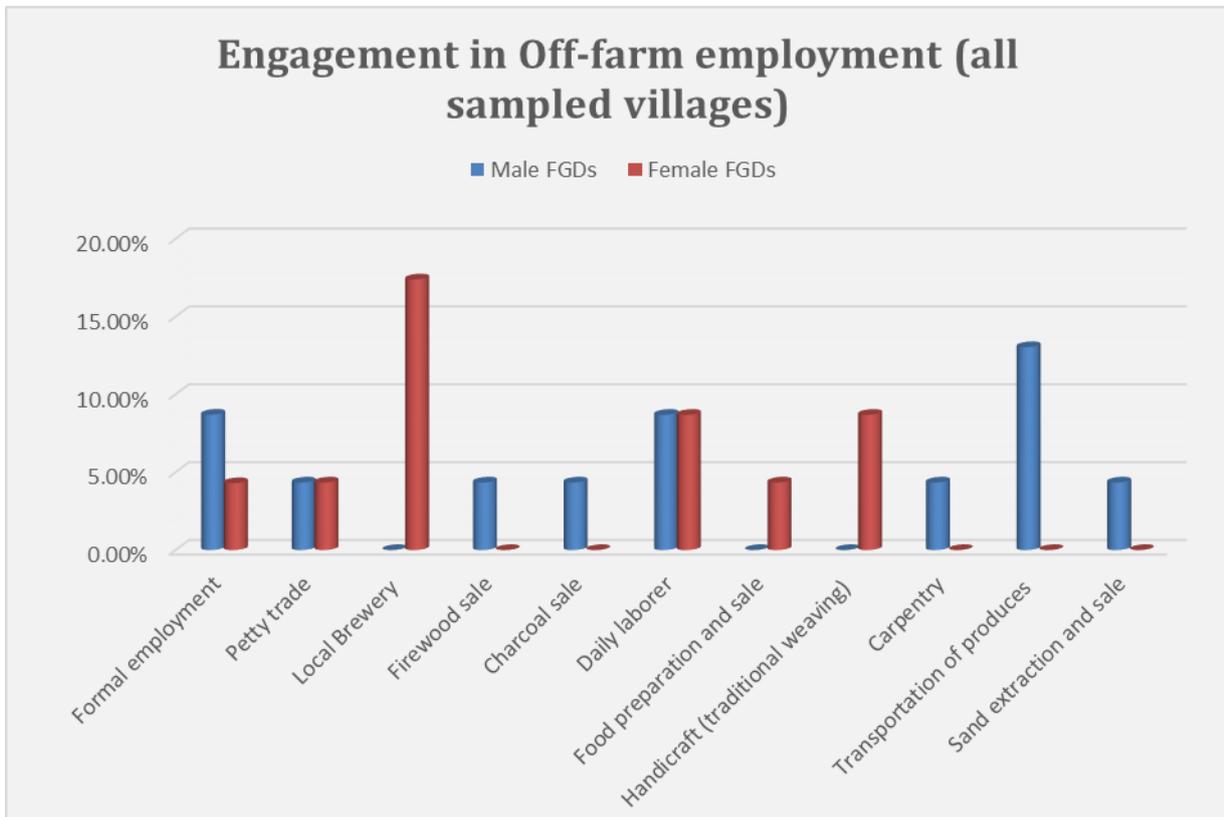
*I don't wish for my children to engage in farming like me. However, they may not have other option if they are unemployed or could not get jobs in non-farm sectors.*

From the discussions held with both men and women groups, it is possible to deduce that farmers are losing hope in taking up farming as a main means of livelihood. Farmers are just in farming business due to lack of other better alternatives.

#### *4.2 Non-farm livelihoods, main challenges and prospects*

It has been identified that both farm land owners and landless households engage in non-farm activities such as petty trade, daily labor, local brewery, formal non-farm employment, firewood and charcoal sale, food preparation and sale, handicraft, carpentry, transportation of produces (from and to the market/farm), sand extraction and sale. However, these activities are not common among land owners (particularly for non-poor farmers) and practiced to cover minor expenditures of households. For some land owners, non-farm engagement is even accomplished in off-seasons where there is no active agricultural activity or when households are in need of urgent cash. On the contrary, non-farm activities are one of the main livelihood strategies for landless households along with share-cropping. As indicated in Fig.1 below, focus group

discussants (summarized for both male and female FGDs) responded that the main off-farm activities they are often engaged in their area are local brewery and working as daily laborer followed by formal non-farm employment and transportation services for produces. Local brewery, handicraft, food preparation and sale are found to be entirely women’s business where as rendering transportation services by using mules and donkeys, carpentry and sand extraction and sale are some of men’s job.



**Fig.1 Summary of responses for engagement in off-farm employment in male and female FGDs**

It has been identified that daily laborer is almost exclusively a livelihood strategy for both the landless women and men farmers. It is noted that women prepare local drinks such as *Tej*, *Arekie* and *Tella* and sell it in their houses. It is not a customary practice to sell these drinks in the local market. Women in their groups described that profit obtained from sale of local drinks is so petty that it is not worth mentioning. They use the money to cover some minor household expenditures. Men and women focus group discussants explained that they have encountered several challenges in their engagement in non-farm livelihood options. Some of the main challenges include: scarcity of capital to start up a non-farm business, limited time to be involved in this sector, requirements of additional land for certain non-farm businesses, lack of skill and knowledge that fit to the demand of profitable non-farm businesses. In addition, some superstitious beliefs discouraged the involvement of families in some non-farm sectors such as pottery and blacksmith. Non-farm sectors have been serving as a main livelihood strategy for the landless and female-headed households. The sector is not directly influenced by climate change and serves as coping mechanism during harsh conditions. The sector is contributing to the development of small-scale enterprises in the study areas.

## 5. Conclusion

Despite the fact that women and men farmers produce diverse crops and livestock, farm based livelihood of farmers has been influenced by some challenges such as fragmentation of land, low productivity and low price of farmers’ produce, wild animal attacks on their farm and crop

diseases. These challenges has led small holders farmers to shift their cultivation into certain cash crops such as ‘khat’ and diversify their income with some non-farm activities such as working as daily laborer, local brewery, handicraft and rendering transportation services. Although small holder farmers diversify their income with these activities, income obtained from these non-farm activities is not still satisfactory and they are not able to make their end meets. The findings show that both women and men small holder farmers lack the required capital and skill to involve in better paying non-farm businesses, and they are losing hope in taking up farming as a main means of livelihood due to the challenges they are facing on farming. This has created a gloomy outlook on the future prospects of farming and calls for the urgency of integrated development interventions. These include interventions that focus on improving the resource management capacity of smallholder farmers and reducing pressure on land by designing capacity building programs that enable them to take up better paying non-farm livelihood alternatives.

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