

*Full Length Research Paper*

## Dealing with deficit: An assessment of gender-based strategies to fill income gaps

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The paper examines gender-based strategies to fill income gaps in Adi E're, Ethiopia. In the parish, crop production is vulnerable to a multitude of challenges. Shortage of rainfall, locust plagues and rodent pests are seriously damaged a potential good harvest. In addition, farming activities is underperforming due to a relatively low technological level. For details on the factors associated to low crop production in the rural Tigray, see the work of Bauer. These are some of the factors that are affecting income generation in many households. As a result, they are often tried to address temporal deficits in grain production through strong gender-oriented strategies. The findings reveal that women have long played and continue to play an important role in the course of annual crop management and food security. Contrary to general perception, women in Adi E're are not merely circumscribed in processing and preparing food, collecting fuel and water, and caring for family but they are part of the wider practice of resource management and socio-economic interdependency. They are not merely contributing to stretch grain supply as far as possible, but also to maintain the household from economic bankruptcy and dispersal. The present study is, therefore, not only aimed to affirm the indispensable contribution of women in filling income gaps, but also to devalue prejudicial works. The study attempts to consult a plethora of primary and secondary sources. Both men and women living in the parish are extensively interviewed. The sources are significantly collected, scrutinized and analyzed. The validities of the sources are cross-checked one against the other.

**Key words:** Gender, income gaps, survival strategy, interdependency.

### INTRODUCTION

In the parish, women have long played and continue to play a substantial role in filling income gaps, particularly during crop failure. They perform a multitude of risk-taking strategies to address the persistent problem. The strategies are, however, less identified in academic literatures.

Many of the anthropological work in rural Tigray are, for instance, typically emphasized on women's land access in the indigenous system of land tenure as well as gender based division of labor.

In addition, the existing works, more or less, general both in scope and theme.

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(Bauer, 1973; Dokken, 2015).<sup>1</sup> Hence, the present study deals specifically with the Adi E're women, a small parish in northern Ethiopia, and their contributions in filling income gaps and resource management. The preliminary findings of this research manifests that the strategy to cope with deficits in the rural community is tremendous gender oriented. In this regard, woman plays an indispensable contribution in dealing with food security and economic growth particularly during the period of poor harvest.

The paper holds into account the appropriateness of empirical evidence to substantiate written and oral accounts. It is important to understand to what degree women participate in decision making in an independent household. Importantly, efforts have made to relate the potential crop production and its implication to women's managing role. Both oral and written sources has revealed that the persistent poor harvest in the area forced women to generate coping strategies, including using alternatives in food preparation, reducing household consumption, and borrowing grain.

Therefore, the paper is not only aimed to assess the essential contribution of women in filling income gaps but also in bringing socio-economic co-operation. It is less identified the role of women in off-farming activities which are essential for reciprocity and social interdependency. They are often managed complex grain deficits and pursue multiple livelihood strategies. Many of these tasks are not considered as economic activities in some literatures but they are indispensable to the wellbeing of rural households. To sum it up, this study contributes to the gender debate in agriculture by examining the empirical evidence in the area that is not received much attention by social scientist.

## METHODOLOGY

This paper was conducted based on the qualitative research approach. Both published and unpublished sources of data are used. This comprises focus group discussion, key informants, document analysis and archival materials. To start with, unstructured interviews were carried out with the purpose of collecting the essential information. Members of the parish particularly women, elders and men were interviewed in depth. Focus group discussion with seven to eight discussants in each group was carried out on different issues of topic under investigation. The selection of participants was made based on their gender, nearness to economic activities, and duties and responsibility in the parish. In addition, reports, research papers, articles, newspapers, minutes, magazines, and other manuscripts

<sup>1</sup> For details on decades of academic neglect about women's role in risk-taking strategies, consult the work of Barbara Hendrie, "Now the People Are Like a Lord"- Local Effects of Revolutionary Reform in a Tigray Village of, Northern Ethiopia. PhD Dissertation in Anthropology, 1999. pp. 95-97; Bauer Dan Franz, land Leadership and Legitimacy Among the Enderta of Tigray. PhD in Anthropological, 1973. p. 128; Dokken, T. (2015), Allocation of land tenure rights in tigray: How large is the gender bias? Land Economics, 91 (1), pp. 106-125.

discussing the contribution of women in the community are consulted from the Cultural and Tourism Department of Tigray Regional State. The written documents are cross-checked against the oral information, collected through focus group discussion and key informants. Finally, data analysis was carried out through interpretation, description of meanings, views and perceptions of the community. The collected data were critically and systematically analyzed through narrative and document analysis approach.

## RESULTS AND DISCUSSION

### Farming practices and self-sufficiency in Adi E're

It widely known that agriculture is an important engine of development and poverty reduction. However, the sector is underperforming in many rural Tigray including Adi E're.<sup>2</sup> It is extremely vulnerable to weather-related shocks that generate food insecurity, mainly among rural populations and smallholder farmers. Unpredictability of rainfall, virulence of weed growth, and continual infections of insects and rodent pests commonly damages a potential good harvest. During the first fieldwork, 2008 E.C, for instance, a shortage of rainfall was severed which led to an estimated 45% reduction in the harvesting. In the following year, the parish received a heavy rain. As a result, the horse-bean was partly affected by a fungal disease. More or less, such events are typical features of the area. The direct result of underperforming crop production is, therefore, that the household mostly produce only enough grain only for nine to ten months' supply.<sup>3</sup>

The Ministry of Agriculture has strongly embarked on increasing agricultural production through the introduction of improved farming technologies. The program has included the provision of agricultural training at all levels and arranging market service for the benefit of the farming community. Steps are also taken to improve the use of improved seed varieties, and the use of chemical fertilizers, but as a result of financial problem and other related factors it is not well practiced, with a few exceptions. Informants in Adi E're, report that the reason for the current conservatism among farmers is, in part, related to financial matters. For example, in 2016 the rainfall did not meet the crop's requirement and there is a crop failure. In turn, many households failed not only to have surplus income but also the chance to repay the

<sup>2</sup> Concerning the failures of crop production, I have found the works of Hendrie and Bauer very appropriate in relation to Adi E're. Like many northern Tigray parishes, Af'i E're receives a short rainfall supply. In case of the rainfall does not meet the crop's requirement and there is a crop failure, a household will not only be short of food for its members but will be short fodder for its animals. This may result the death of oxen and the household will be deprived of its capital equipment. See, Barbara Hendrie, "Now the People are Like a Lord" – Local Effects of Revolutionary Reform in a Tigray Village, Northern Ethiopia. PhD Dissertation in Anthropology, 1999. p. 94.

<sup>3</sup> The overall description is based on the primary observation and interviews that took place on Monday, May 31, 2016, in Adi E'i'ra.

fertilizers fee of the previous year.<sup>4</sup> Many households particularly smallholder farmers experiences a sever crop failure and food insecurity. These farmers are party achieved through planting of large variety of crops, each known for their capacity to grow under specific rainfall conditions. Based on the frequency of rainfall and the characteristic of crops, *Desalegn* wheat has deemed to give the highest average return both in terms of weight and price. *Desalegn* wheat, however, gives a very poor production with low rainfall, regardless of soil type. In a serious shortage of rainfall, therefore, many households prefer to grow *Arkib* corn.

In addition to growing of variety of crops, income related risks are also minimized by the use of the animal manure.<sup>5</sup> A woman collects dung in order to use in the fields with the purpose to improve soil fertility. They applied in a mixture of dung and ash on plots near to the homestead. In addition, dung is collected from fields by young boys and girls and dried in the household compound for use in cooking.

In this farming society, labor division is entirely gender oriented. Women perform more than 50 percent of farm labor, and representing 80% of household food management. As noted by informant, the activities in which women are involved ranges up to decision-making authority. Their capacity and involvement in risk aversion strategies is considerably varies from one another. It is deemed that a household with a good woman manager successfully stretches grain supply as far as possible. On the contrary, poor managers wastes the annual budget and move the household closer to economic collapse and dispersal. The dichotomy in the ability to make a decision concerning household management is also part of this study (Abraha, 2012; Abraha, 2016).

### Gender-based risk taking strategies

It is often mentioned that a woman takes a prime responsibility to ensure the household from an unanticipated risky. The *Ma'eken*,<sup>6</sup> which, in turn, means grain store or granary, is extremely under the management of a woman. The household grain store is

normally concealed from public view. During the annual celebration of the patron saint, local priest who appears to bless the household visit the granary. Most of the time, no one is allowed to enter the granary if not invited by the woman of the household. Most importantly, no one is permitted to take away grain from the temporal storage baskets, *Shirfa*,<sup>7</sup> unless permission is offered by the women including other household members. When the head of household particularly the husband deserve to cover non-food expenses, an accord and authorization from the wife is compulsory. In fact, continual breakdown of such norms of behavior by the husband is potential grounds for divorce.

The task of women is, however, not merely delimited in authorizing the input-out grains but also determines the annual budget. Almost immediately after harvesting period, for example, a woman starts making calculations concerning grain supply for an annual budget. First, she estimates together with her husband approximately how much grain will be required as seed and deducts this amount from the total. After seed has been subtracted, the woman compares what is left against what she knows are the consumption requirements of the household. She often makes rough calculation ahead of consulting her husband. The woman gets an authority to make decision independently. It is a right that manifested only in such tasks and contributions. The responsibility to manage and make decisions that affect the household welfare is, more or less, central to the idea of participation.

In addition to seed and food requirements, there are other outputs on the household's grain supply. To begin with, an independent household make reserves for religious purpose, including gifts offered to the local church on the saint day. It also takes into account any debts to repay or may require cash from the sale of grain to purchase livestock or other requirements. These considerations put into the calculation of what is needed versus what has been gained from agricultural production. The woman is critically considered such requirements to manage the annual grain supply of her household. Based on the severity of the shortage, she appears to use additional techniques to avert further problem.

In this regard, a woman starts to focus on the quantity and quality of grain supply for food preparation. During a crop failure, a woman tend to change the quality, and minimize the quantity, of food prepares in the household. In other words, she starts to reduce the grain supply, because the household is remained with little annual yield. Indeed, the strategies are also aimed not only to stretch out grain consumption but also to preserve crops for the next harvest. Thus if she fail to start immediately,

<sup>4</sup> In 2008, chemical fertilizer cost 1100 Ethiopian *birr*- per quintal, a price out of the reach of most farmers in Adi E're. Perceptions toward chemical fertilizer considerably varied: many farmers claimed it sped up weed growth. Of those peoples who did use fertilizer, most used a combination of manure and ash on plots close to the dwellings. Most manure, however, is collected from fields by young children and dried in the household compound for use in cooking. It is almost impossible to find peoples who deliberately collect animal waste for the purpose of fertilizer.

<sup>5</sup> This part of Tigray is known for its usage of manure to improve soil fertility. For further comparison with other parts of Tigray see Bauer, Variation in Settlement Pattern in Tigray: A Generative Model. Journal of Ethiopian Studies, 1972. p. 132.

<sup>6</sup> Traditional grain storage made of clay and wood, typically used for storing crops for long period of time.

<sup>7</sup> Before the introduction of modern grain storage, the farming community of Adi Ere used *Shirfa*, a large basket made of clay and wood, as temporal storage.

she will risk her households grain quickly before the next harvest. The strategy is, therefore, ensures the household's meager income gaps from looking upon the generosity of the richer households for its survival.

### Reducing and substituting consumption

The techniques of reducing consumption refers fewer pieces of *enjera*, a staple fermented bread, at each meal. It is also refers to minimizing the quality of grains to prepare *enjera* dough. The quantity of *taf* in *Enjera*,<sup>8</sup> for instance, will commonly be reduced or totally eliminated altogether. With the purpose of keeping the quality of *Enjera*, a woman prepares it from a mixtures *teff* and sorghum and/or barley. Likewise the strategies take place on the sauces that served with *enjera*. The proportion of oil or butter put in will be minimized or entirely eliminated on the whole. The same alterations are also carried out in the preparation of coffee. The preparation of *Sewa*, a local beer made mainly from barley, for both for religious and secular purposes have to be minimized as well. It is deemed that the frequency and quantity of *Sewas* is eliminated or substituted. The informants state that sugar is substituted with the less-expensive, salt.

The strategy of minimizing and substituting household consumption is usually effective if the partner/husband leaves the house for a brief period of time. Many farmers in the parish have, at one time or another, been left the house to seek wage labor in the neighboring towns. Then, a woman appears to minimize the content of food she prepares. In addition, she brings fewer pieces of *enjera* and served with a less quality of sauce. Many of the informants, who faced continual problems, had once served their children *enjera* with *berber* (red pepper) and salt. It is less important to prepare a chicken whenever the husband went out. It would be an embarrassment to eat a chicken even ahead of the husband. This is also common in the preparation of the local drink, *sewa*. A woman prepares *sewa* only when the husband is in the house. In effect, some of the practice has manifested the prevalence of social and cultural impacts on women.

In addition to minimizing the proportion of grain used for household consumption, a woman reduces the amount of grain for religious purposes. In Adi E're, the most important saint is *Kedsti* Maryam, the patron saint of the village for which the *Tawot* (the Covenant) within the church is dedicated.<sup>9</sup> The day of St. Mary falls on the 21st

of each month and on the 21st of November, *Hidar*. At this particular time, each household supposed to prepare a feast. Moreover, if the household is member of a particular *Mahiber*, a socio-religious self help association, they have to serve *sewa* and food to members (Abraha, 2016). The practice is also repeated each month to honor the parish patron saint. In the feast, guests are invited to the house to eat and drink. In time of poor harvest, however, the amount of food and *sewa*, and the number of guests, proportionally reduce by the woman.

Furthermore, the gifts to the patron saint can be reduced. Hendrie (1999) has made an in-depth study on the gifts allocated to the religious practice in Enda Maryam, a small parish in Enderta. The yearly total donations are not unsubstantial, in particular compared to the annual crop yield of the average household. His survey has revealed that the total expenditure of grain for religious purposes, constituted 8 to 13% of total crop harvest. When a household faced a severe grain deficit, they would be abandoned all gifts to the church with the consent of the ecclesiastic office. However, the household would still do everything possible to perform the gifts to the church.

### Wage-labor

In order to address the consistent income gaps, some households temporarily send out their member. This means dispatching one or several members to stay for a certain period of time in other place or to find work. The number of departures to resolve the temporal economic deficit depends on several factors. During the summer season, whence all agricultural activities carried out, a household will not send way any members. Males' above the age of twelve as well as women are essential part of the farming labor. In this regard, adult men participate in plowing, sowing and threshing activities. In fact, sometime young boys above the age of ten may plough if they have the skill and strength for the task. Therefore, these members of the household are often exceptional from departure.

The seasonality of labor work in crop production tends to reduce a labor problem in Adi E're. A household consisting of a wife, a husband and a child over the age of ten plough the fields, take care of the animals and process the foods necessary for their own support. Male labor is extremely invaluable only during few periods during crop production. In other words, the presence of male labor during the off-farming season is less important (Woldeyohanes, 2016) As a result, to deal with the temporal financial hardships, the household often decides to dispatch one or several members to work as wage-laborers in the neighboring town. Due to the opportunity of off-farming works, farmers regularly travel to nearby towns like Wuqro to seek supplementary income after the completion of the task of harvesting. Using such strategy,

<sup>8</sup> In many parts of Tigray including Adi E're, *Enjera Teff* (*Eragrostic abyssinica*) is normally prepared in rich households. *Teff* is economically important as a cereal grass (yielding white flour of good quality) as well as for forage and hay. Hence, *Enjera Teff* is state of being rich and affluent; having a plentiful supply of material goods and money.

<sup>9</sup> On the complexity of honoring of Saints' Day, a fine analysis has already been given by Hendrie, 'Now the People Are Like', pp.211-212.

a household manages to minimize its temporal economic crisis.<sup>10</sup>

With the introduction of community-based environmental rehabilitation program, a safety net project, the women's have devoted a certain number of work-days to the program. Woman labor is therefore needed year-round than male labor in the parish. They are important in food preparation as well as other domestic tasks on the regular basis. A single able-bodied woman, preferably with the assistance of an adolescent girl, can efficiently manage such tasks. The household only sends a woman to live with relatives or to work in the town if there are additional girls in the house. A household with a single girl is not spared to send her out of the village for economic purpose.

### Borrowings

Most women are cited borrowing as their last strategy for making up deficits in crop production. Informants has stated that they tends borrow either in kind or cash. To address temporal economic deficit the woman borrows small amount of grain or they made a regularly exchange with other households on a reciprocal basis. The key informants of the study prefer to borrow grain than cash, because it could be reimbursed in kind, while cash are usually obtained in the marketplace through the sale of grain. It is important to understand that debts are collected immediately after the period harvesting. This implies that an independent household would be compelled to sell grain at a period when its market value is lowest. Thus a good number of loans often take place within the people of the village, but it can be obtained from people outside parish as well.<sup>11</sup>

The loan which is exchanged among women's to deal with grain deficit is free from interest. In addition, the loan is often carried out orally. A *wahis* or guarantor is called in to attend the accord, only when the amount involved is extremely large and important. Failure to pay back such loan is a serious issue, it can, for instance, be brought the local court, assuming there is a witness who can give testimony. When the EPRDF (Ethiopian Peoples Revolutionary Democratic Front) took power, some changes were introduced on grain loan agreements. One of such cases is associated with the increasing of the quality of the grain that was borrowed. For example, a woman who borrows sorghum supposed to return the same amount of wheat.<sup>12</sup> Another form of hidden interest is the condition of a day's assistance to a creditor, in

addition to repayment. Both these strategies of aid increase the opportunity of obtaining another loan from other creditor.

Informants claim that, whenever possible, they prefer to obtain from close relatives and friends. A fundamental reason for the tendency is that provisions of repayment will often flexible, for instance, it may be possible to extend payment over a longer period of time, or only to repay only with labor. Normally, a close kin and friends are expected to make reciprocal relationships, not all are in a position to offer important loans. In case, when more than twenty kilo of grain is needed, it is frequently necessary to find out a potential creditor. Individuals with surplus grain do not usually store it for more than one year in the parish. This is due to the fact that old grain cannot easily be sold in the marketplace compare to the new one. Therefore, households that have a surplus prefer to lend out grain and obtain new grain as repayment directly after harvest. Such cases, therefore, enable a creditor to minimize storage loses.

In Adi E're, loan is encouraged to be carried out within the parish. It was reported that a woman is not supposed to make loan from outside the parish. In fact, the numbers of possible grain rich creditors are almost insignificant. In such case, they prefer to borrow from their *co-mahiber*, a religious institution that dedicated to celebrate a particular saint. In *mahiber*, it is normal to help member's each other both in their hardship, such as crop failure, and in joy. *Mahiber* is one of the most important enduring and germane socio-economic associations that foster cross parish interactions for mutual assistance. In practice, it takes into account not only the societal bond but also enhances women's participation in social affairs and maintains developmental orientation.

To sum it up, women's made essential contribution to their respective household in particular and to rural economy in general. Their roles vary considerably between and are changing in part in the parish, where social and political forces are transforming factors. Adi E're women usually manage complex households and pursue various livelihood strategies. Like other farming society of northern Ethiopia, women in Adi E're are important in preparing agricultural crop, processing and preparing food, collecting fuel and water, participating in trade and market, caring for family members and maintaining their homes. Most importantly, they are responsible for managing income gaps and resource management (Bauer, 1973).

Many of their contributions are not well defined as economically important in the traditional community. Such activities are essential to the wellbeing and livelihood of each household. The findings of the present study, therefore, show the multitude strategies carryout by women to cope income gaps are extremely important in the program of rural food security and interdependence.

<sup>10</sup> The overall description is based on the primary observation and interviews that took place on Monday, May 31, 2016, in Adi Ei'ra.

<sup>11</sup> Abraha, *Mahiber: Dynamics of*, p. 6.

<sup>12</sup> The proportional price of wheat is better than sorghum, as a common rule, therefore, a woman who borrows sorghum supposed to return the same amount of wheat.

The contribution of women to household income gaps and food security is clearly significant. More importantly, the reliance of some households on loans of grain to fill income gaps reveals the existence of interdependence in the farming society. Moreover, such situation verifies the role of women decision-making to ensure food security and resource management.

## Conclusion

This study illustrates how women participate in resource management and food security in the farming society of Adi E is. It tries to offer a clear and complete picture of women's authority within their own households in crop choice decisions, the management of funds and annual requirements.

The technological, ecological, and economic constraints involved in crop production, encourage generating gender based in income filling strategies. It is important scholars, therefore, to pay attention to reconsider the degree of participation of women in the process of decision-making in household's resource management.

In the parish, households are often faced with the need to make up for shortages in grain supply through a strong gender based strategies. In every household, women are not only responsible for food preparation but also managing annual grain consumption. In managing household, she begins by making calculations concerning grain budget almost immediately after harvest. The woman anticipates the amount of grain that will be required for seed, consumption and other funds and subtracts this quantity from the total. This risk taking strategy also includes minimizing annual consumption to cope with severing deficits, and using substitution and borrowing strategies are common risk aversion, which are normally taken by women's in Adi E're.

Finally, the finding is not simply of academic purpose. In effect, such results may be and should be used to enlighten individuals concerning the role of women in resource management and food security. The study also seeks to ensure that women are actively involved in decision making on distinct issues.

## CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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## REFERENCES

- Abraha W (2012). Land Tenure and Taxation system in Enderta, 1889-1974. MA Thesis in History and Heritage Management.
- Abraha W (2016). Mahiber: Dynamics of a Socio-Religious Self-Help Association. *Journal of African History and Culture*.
- Bauer F (1973). Land, Leadership and Legitimacy among the Inderta Tigray of Ethiopia. PhD Dissertation in Social Anthropology, Michigan State University.
- Dokken T (2015). Allocation of land tenure rights in Tigray: How large is the gender bias? *Land Econ.* 91(1):106-125.
- Hendrie B (1999). Now the People Are Like a Lord'-Local Effects of Revolutionary Reform in a Tigray Village, Northern Ethiopia. PhD Dissertation in Anthropology.
- Woldeyohanes TA (2016). Effect of off-farm income on smallholder commercialization: Panel evidence from rural households in Ethiopia. *Agricultural Economics (United Kingdom)*, Article in Press. P 34.