

Full Length Research Paper

An investigation of gender division of labour: The case of Delanta district, South Wollo zone, Ethiopia

Nahusenay Abate

Department of Geography and Environmental Studies, College of Social Sciences and Humanity, Samara University, Ethiopia.

Received 2 December, 2015; Accepted 13 April, 2017

In the household and agricultural production, men and women are involved in different activities to ensure the availability of goods and services for family consumption and well-being. The main objective of this study is to address gender division of labour in Delanta district, South Wollo Zone, Ethiopia. It addressed the different assortment of activities that are carried out by women, and identified some drawbacks faced women. The study was conducted in six rural districts, and 300 households by taking 225 women and 75 men in their residents. The interviewees were selected using stratified random sampling technique picking up 50 households from each rural district. The data were analyzed through descriptive statistics. The results showed that women have primary role in gender division of labour in the study area. Women predominantly performed storage preparation (84%) and post harvest processing (81%), milk processing (82%), barn cleaning (61%) and care of new born animals (52%), cooking (86%), fetching (78%) and collecting fuel-wood (62%). They are also performed equally with men weeding (53%), harvesting and collecting crops to threshing field (52%), threshing ground preparation (80%) and keeping crops from wild life (37%). Despite their crucial roles in agricultural sectors, women have been marginalized for so long. They have limited access and control of agricultural products, extension services and information. This is due to social, cultural and work discrimination. This discrimination, in turn, has caused some women to lose self-confidence in decision-making power. Thus, to strengthen and develop women with economic, social and political affairs, federal and regional governments, and other concerned bodies should take all appropriate measures to ensure women equality with men, without any discrimination. Women should also participate at all stages of project planning, implementation and assessment.

Key words: Agriculture, Delanta district, gender, labour, rural women, women.

INTRODUCTION

At the various places in the household as well as the agricultural fields, women and men are engaged in different activities to secure family livelihoods while these

activities may be different; they have a social connectedness (Cerceanu, 2012).

In most societies, the relations between men and

E-mail: nahugeta@gmail.com, nahusenayabate@su.edu.et. Tel: +251 913 86 61 85.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

women are largely unequal and hierarchical, often resulting in unequal access for women and girls to social goods and services. These activities may be formal or informal. Poor people in rural areas face an acute lack of basic social and economic infrastructure such as health and educational facilities, and access to safe drinking water. Households who are headed by women are particularly vulnerable (Nahusenay and Tesfaye, 2015). Lack of empowerment negatively influences the technology and well-being of millions of girls and women all over the world women are much less likely than men to receive an education or health benefits, or to have a voice in decisions affecting their lives (Mondal, 2013).

Nowadays, a number of factors are responsible for the gender division of labour. Some of them described by biological variations (sex), others resulting from socially constructed norms and expectations (gender). Some are also gender-neutral and others are gender-biased. For example, child care, household care (cooking, cleaning, fetching wood and water, etc.) are activities ascribed to women that are gender-biased. An intricate and changing relationship of cooperation and exchange between men and women exists within the household (Chayal, 2013).

Women who produced about 60 to 80% of basic food stuffs in Africa, and more than half of all food in worldwide are produced by the smallholder of women farmers (Shafiwu et al., 2013), 70 to 80% of production in Sub-Saharan Africa (Boakye-Achampong et al., 2012). When women are economically and socially empowered, they could become a potent force for change. In rural areas of the developing world, women play a key role in running households and make major contributions to agricultural production. Nahusenay and Tesfaye (2015) and Ogato et al. (2009) reported that about 90% of food processing, water fetching, fuel wood preparing for household consumption and weeding, and over 80% of food storage and transportation from farm to village, and about 60% of harvesting and marketing of farm produce are worked by women.

Women engage in agriculture as farmers on their own lands, as unpaid workers on family farms and as paid or unpaid labourers on other farms and agricultural enterprises. The story of overworked women in the rural areas of the developing and underdeveloped countries of the world is very well known. Their wages are generally less because it is assumed that the efficiency of women's labour is poor compared to that of men (IFAD, 2011). However, the inequalities that exist between women and men make it difficult for women to fulfill their potential. One untapped source of agricultural growth to help meet these needs could lie in reducing the bias against women in agriculture. This is because increasing attention is now being paid to the gender dimension of poverty and development particularly in relation to the role of women in agricultural processes (Nahusenay and Tesfaye, 2015).

In this specific type of manual agricultural wage work

were extremely poor in absolute terms and relative to other rural women (DFID, 2014). Due to gender inequalities in access to formal employment and income, as well as a general lack of power and access to economic resources, women are more prone to poverty and insecurity (Cerceanu, 2012). Much of the wage labour in agriculture is female labour who are food producers working on joint family farms and tending their own land for household food production while only a small percentage is independent farmers. It is widely acknowledged that the majority of the rural poorest are women and girls. Where wages and working conditions have been found to be inadequate, and to discriminate against women (Shafiwu et al., 2013).

Women invest longer time than men to achieve the same level of living. They spend longer hours gathering fuel-wood and fetching water. As well as safety and health problems, lack of time is a major constraint in mobilizing women to contribute to livelihood diversification strategies (IFAD, 2014). Women rarely have access to the resources that would make their work more productive, and ease their heavy workload. Overall, the labour burden of rural women exceeds that of men, and includes a higher proportion of unpaid household responsibilities related to preparing food and collecting fuel and water (FAO, 2011).

Labour intensive and time-consuming activities further hinder women's ability to improve their income-earning potential. Ultimately, it is not just women who are held back, but also their families, their communities and local economies. There is evidence that, as women participate more in market work under pressure of poverty their domestic labour is not substantially reassigned to men (Abdelali-Martini, 2011).

The gender division of labour varies from one society and culture to another, and within each culture external circumstances influence the level of activity. Except in few most developed countries, women's efforts are not yet realized by society. Women's role in ensuring household food security remains largely unrecognized in policy and resource allocation, especially in developing countries. The voices and concerns of rural women are given very little attention at the national and global level (Boakye-Achampong et al., 2012). Although increasing female participation in the labour force has a positive impact on economic growth. One cannot fully comprehend rural development in Africa without the passionate and active participation of women.

The aforementioned moments are most of the challengers the Ethiopian women farmers face. They have constraints including lack of land for farming, limited access in communication between men and women and control of agricultural products, credit facilities, skill training, education, extension services and information, their contribution is not appreciated. In this sense, women are negatively influenced by traditional pattern, and the previous economic policies. Most of them lounge in the

margin of major development efforts and programs.

In rural areas of Ethiopia, women play the leading role in agricultural production, livestock rearing and cottage industries and remain busy from dawn to dusk to supply food to men in fields, fetch water, collect fuel wood, and manage livestock. Hitherto without the complementarities of women's work, such efforts and programs would barely work even though men own such assets and inputs as land, credit, seeds, livestock, technology and infrastructure.

As part of the Ethiopian women, the Delanta district rural women in South Wollo share the female subordination and the overall problems that are faced by the Ethiopian women. These problems were analyzed in this study from the viewpoint of a population- geographic analysis in conjunction with the necessary solutions. The dominance of men in various income generating activities affects highly the economic empowerment of women. The purpose of this study was therefore to evaluate the activities of rural women and their participation in agricultural production to fulfill the food security of their family. More specifically to answer the question's what is the role of women in agriculture and household activities in the study area?

Objectives of the study

The general objective of the study is to assess gender division of labour in agriculture and household activities as well as comprehend the major constraints to their empowerment. In line with this general objective, the following specific objectives were conducted by taking Delanta District of North Wollo as a case study. The specific objectives of the study are:

- (1) To investigate the gender division of labour in agriculture and household activities; and
- (2) To assess the main constraints faced by rural women involvements in agricultural works.

Research questions

- (1) What are the key roles of women in gender division of labour?
- (2) What are the main constraints of women's participation in gender division of labour?

MATERIALS AND METHODS

Description of the study area

Delanta district is located in South Wollo Zone the Amhara Regional State of Ethiopia which lies between 11°29' 29.82" to 11°41' 25.53" N and 39°02' 19.19" to 39°14' 05.04" E with an altitude ranging from 1500 to 3819 meter above sea level at the bottom of the valleys (Gosh Meda) and the top of the mountain

(Mekelet), respectively. It is situated about 499 km north of Addis Ababa and 98 km northwest of Dessie town in South Wollo Zone. The major landforms of the district comprise extensive plateaus, chains of hills with mountainous ridge, river-valleys and very deep gorges at the boundary. It is oval in shape with dendritic drainage pattern, steep ridges, and numerous convex hills at the plain area and gorges at the boundary.

The area is characterized by the trap series of tertiary periods, similar to much of the central Ethiopian highlands. It is covered by Oligocene rhyolite and very thick ignimbrite units encompassing predominantly of alkaline basalt with numerous inter-bedded flow of trachyte. The granite, gneisses and basalt rock types exist in the area the forming part of the basement complex and most of the soils are basaltic parent material. According to Nahusenay et al. (2014), the soils are predominantly Vertisols, and other types are Cambisols and Leptosols which are greatly influenced by topography with high surface runoff during the main rainy season.

According to WAOR (2013) report, the total area of the district is 98002 ha stretching from lowland to highland, much of it being in the mid-altitude ranges dominated by plateaus. Average land holding size is one hectare per household (0.75 ha for crop production and 0.25 ha for grazing). The land uses are both private and communal land holdings which can be identified through land use patterns. The largest proportion of the land is currently unutilized which accounts about 45%. Cultivated and grazing lands are the major land use types in the study area (Figure 1).

According to traditional agro-ecological classification of Ethiopia, the area falls in all the categories that basically correlate with elevation. These are *Kolla* (lowland), *Woina Dega* (midland), *Dega* (highland) and *Wurch* (very highland). The climate of the area is characterized by dry seasons (from October to February cold-dry and from March to June hot-dry) and wet season (from mid-June to September). The fifteen years mean annual rainfall of the study area is about 812 mm of which 75-80% is received in summer (*Kiremt*) and 25-20% in the spring (*Belg*) seasons. The mean annual minimum and maximum temperatures of the same period are 6.8 and 19.6°C, respectively. Peoples living on upper elevation their farming activities primarily depend on *Belg* rains, while those on middle and lower elevation rely on both the *Kiremt* and *Belg* rains. However, there is small, erratic and unreliable rainfall and the area is prone to sporadic droughts.

According to CSA (2015) projection's Delanta district is densely populated area with average family size of five persons per family. The rural population constituted 96.5% of which 51% are males and the remaining 49% being females. The district is divided in to 33 local districts which are stretched into different agro-ecological zones. The community of the district did not produce sufficient food for year-round consumption even in the normal climate conditions. This is due to severe land degradation, land scarcity, and erratic rainfall.

Data types, sources and sampling techniques

One of the motives of the survey was to investigate variation in the patterns of agricultural works, and coping mechanisms based on agro-ecological variations. To this end, six representative local districts (*Kebeles*-which is the smallest administrative unit in Ethiopia) were randomly selected based on the above stated variations, and to make the study manageable, 50 household was taken from each rural district using simple stratified random sampling techniques.

The cross-sectional data was conducted to assess handling, processing and utilization the agricultural production. The target populations were rural women and to know the attitudes of men towards women's job 25% of the total population were considered men. Fifty smallholder farmers were selected using random sampling techniques in each of the study sites. A total of 300 rural

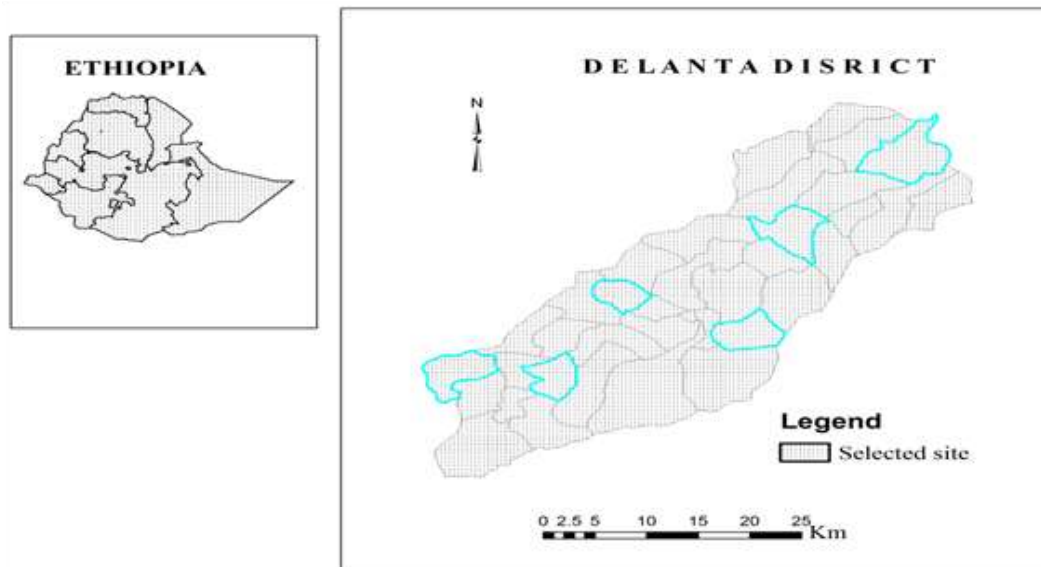


Figure 1. Location map of the study area.

households of which 75% of women were interviewed using structured and semi structured questionnaire.

Both the primary and secondary data were considered for this study. The primary data were conducted in household surveys which were administered through field observations, questionnaires, formal interviews and focal group discussion with rural women, men, women affair office and other concerned authorities. For this purpose, questionnaires were developed and provided to all key respondents. Most of the items were close-ended and some open-ended questions were also included due to accomplish qualitative information on the attitudes, beliefs and practices of the people. The secondary data from both published and unpublished documents of governmental and non-governmental organizations were dug out to supplement and strengthen the primary data. Historical, cultural, socio-economic backgrounds of the area were obtained by using secondary materials.

Methods of data analysis

The primary data was analyzed and presented by using both descriptive and inferential statistical techniques. The descriptive techniques include percentage, cumulative frequency, standard deviation, while the inferential statistical techniques used Chi-Square tests. The Chi-Square test was employed to see the association or homogeneity between the agro-ecological zones with reference to responses regarding agricultural works, and coping strategies used by peasants during famine (scarcity of food) and its impacts.

RESULTS AND DISCUSSION

Gender division of labour in field activities

In order to understand and analyze gender division of labour, that is the allocation of tasks between males and

females, can usefully be categorized into two groups, namely, production in the field and inside the household. The division of labour in the study area is traditional. This means that, some tasks are reserved for men and others for women. Children, depending on their sex, tend to follow their parents' occupations and learn from them. There is a clear gender, and age based division of labour in crop production, animal husbandry, and household tasks.

Women's involvement in crop production

Women and men often possess unique and valuable local knowledge. However, frequently there is a gender gap in terms of access to other kinds of knowledge, such as new technology of agricultural services. The flexibility or rigidity of the gender division of labour can be ascertained at the community or household levels through a combination of direct observation, reliance on informants and structured interviews with individuals. However, it is difficult to tell the exact time spent by women in agricultural activities. From the survey made in the study area, this study has come to understand that women spend more time in seed-bed preparation, harvesting of crops, weeding, transporting, and storage preparation.

As demonstrated in Table 1, men solely perform planting (89%), transport yields to home (86%), carrying farm tools (81%), ploughing farm in animals (76%), and field preparation for planting (69%). During this time women assist their husbands to cover the seed with soil, pull horses, and clear waste from the field. Some of the agricultural activities like threshing ground preparation

Table 1. Gender division of labour in crop production.

Activity	Women		Men		Both		Children	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Storage container preparation	252	84.0	25	8.5	8	2.5	15	5.0
Storing process /post harvest	243	81.0	22	8.0	29	9.5	6	2.0
Weeding unwanted plants	59	19.5	64	21.5	159	53.0	18	6.0
Collecting crops to field floor	51	17.0	70	23.5	152	50.5	27	9.0
Keeping crops from wild life	48	16.0	47	16.0	110	36.5	95	31.5
Cutting and gathering crops*	33	11.0	97	32.5	156	52.0	14	4.5
Field preparation for planting	32	10.5	206	68.5	36	12.5	26	8.5
Ploughing farm in animals	29	9.5	226	75.5	24	8.0	21	7.0
Carrying farm tools	21	7.0	243	81.0	21	7.0	15	5.0
Threshing ground preparation	15	5.0	29	9.5	238	79.5	18	6.0
Transport yields to home	12	4.0	258	86.0	12	4.0	18	6.0
Planting/sowing seeds	11	3.5	266	89.0	9	3.0	14	4.5

*Crop-cutting like wheat, barley, faba bean, linseeds, lentil, grass pea.

Table 2. The participation rate of women in crop production activities.

Types of activities		Dega		Woina Dega		Kolla		Total	
		Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Participated	Act	37	74	82	82	47	94	166	83
	Exp	41.5	-	83	-	41.5	-	-	-
Not participated	Act	13	26	18	18	3	6	34	17
	Exp	8.5	-	17	-	8.5	-	-	-
Total		50	100	100	100	50	100	200	100

Source: Based on field survey $\chi^2 = 7.23$; C.V = 5.99; $\alpha = 0.05$ and $df = 2$; NRP = Number of respondents.

(80%), weeding (53%), cutting and gathering crops (52%), and collecting and transporting crops to threshing fields (51%) are equally working by men and women this was also reported by Ashwill et al. (2011) in the Plurinational State of Bolivia and Abdelali-Martini (2011) in the Middle East and North Africa (Table 1).

In Delanta district, the expected and the most important occupation of the family members aged 10 years and above is farming. Employment outside agriculture is almost non-existent in the district. Agriculture is the key asset for subsistence farmers in the district. This is a fundamental question, why are there differences

of women's activities in agro-ecological zones? The reasons for the involvements of women differ in agro-ecological zones, and the nature of crops sown in the area. Some type of crops, namely *teff*, maize, sorghum, some pulses have never be sown in *Dega* areas but are commonly found in *Kolla* and *Woina Dega* areas (Table 2).

Table 3. Gender division of labour in livestock activities.

Activity	Women		Men		Both		Children	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Milk processing	247	82.3	0	0	0	0	53	17.7
Cleaning animal waste/barn cleaning	182	60.7	9	3	8	2.7	101	33.7
Care of new born animal	154	51.3	39	13	48	16	59	19.7
Milking cows	78	26	155	51.7	50	16.7	17	5.7
Animal feeding	38	12.7	159	53	47	15.7	56	18.7
Herding animals	20	6.7	47	15.7	21	7	212	70.7

Table 4. Gender division of labour in household activities.

Activity	Women		Men		Both		Children	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Food preparation/cooking	259	86.2	0	0.0	13	4.3	29	9.5
Washing dish and others	249	83.0	9	3.0	12	4.0	30	10.0
Cleaning household floor	247	82.3	0	0.0	0	0.0	53	17.7
Fetching water from pond/pipe	235	78.3	22	7.3	14	4.7	29	9.7
Fuel-wood preparation (collection)	187	62.3	42	13.7	23	7.7	49	16.3
Grinding grains in hand and to take the mill	139	46.3	19	6.3	96	32.0	46	15.3
Family care (animal herding)	109	36.2	44	14.5	129	42.8	20	6.5
Washing family clothes	94	31.3	37	12.3	155	51.7	14	4.7

Women's participation in livestock production

Policies can also influence the economic incentives and social norms that determine whether women work, the types of work they perform and whether it is considered an economic activity, the stock of human capital they accumulate and the levels of pay they receive.

In Delanta district, livestock activity takes place hand-in-hand with the crop production, and all family members participated. Livestock production is the main sources of income generation, as well as the pioneer of the wealth status in the district. As indicated in Table 3, women solely perform

milk processing (82.3%), barn cleaning (60.7%) and care of new born animals (51.3%), while men assist animal feeding (53%) and milking cow (51.7%). With the herding of livestock in the area, about 70.7% of the task was done by children, and this was also reported by Mihiret and Tadesse (2014) that the majority of household activities are performed by wives.

Gender division of labour in household activities

The sexual division of labour cannot be fully understood without knowing how women and men

within the household differ in their agricultural information and services.

Employment inside the house is almost all done by females in the District. The situation of women in general indicates that they carried out the heaviest burden of family life responsibility, which includes feeding, housing, clothing, and breadwinner sharing (Table 4). Adult females (women) perform food preparation/cooking (86.2%), washing dish (83%), fetching water (78.3%), preparing fuel-wood (62.3%) and grinding grains (46.3%), and this is also reported by Mihiret and Tadesse (2014) that the majority of household activities are performed by wives.

Table 5. Major social constraints against women’s involvement in decision-making power.

Types of constraints	Low		Moderate		High	
	NRM	Percentage (%)	NRM	Percentage (%)	NRM	Percentage (%)
Educational level -Illiterate	9	3.0	27	9.0	264	88.0
Poor access to farm information/women are less informed than men	50	16.7	104	34.7	146	48.7
Traditional habit/cultural	63	21.0	125	41.7	112	37.3
Women are only subordinate to male counterparts	38	12.7	89	29.7	173	57.7
Low self confidence of women in making farm decisions	15	5.0	57	19.0	228	76.0
Lack of knowledge about farming	42	14.0	82	27.3	176	58.7

Source: Based on field survey; NRP = Number of respondents.

With all these activities; children, particularly female, assist their mothers, while the male mostly herd animals, bird scared and crops protect from wild life. They are doing all these things with a backward technology where implements and tools are the most primitive. In most societies, reproductive tasks or tasks related to child bearing and care and maintenance of the household activities (cooking, fetching water and collecting firewood) are assigned to women. Moreover, women also manage community resources while men participate in formal community politics.

In consent with the gender-responsive labour activities observed in this study, the studies of Razavi and Staab (2010), Dawit (2012) and UN-Women (2014) showed that every economy is dependent on the unpaid care economy, comprising cooking, cleaning, elder care, childcare and community-based volunteering. Unpaid work is heavily feminized, and the burden of unpaid work may increase or decrease as a result of ostensibly sustainable interventions.

Inhibition women's participation in development endeavors

According to this study, a number of social and

cultural factors determine the extent of women’s involvement in various activities which is different from that of the men. For instance, women are excluded from deciding what crops to plant; purchase and sale of livestock, farm inputs, and land plots (Table 5). When these issues required decisions, these decisions are done by men, and in some rare cases shared by both. In the study area, the traditional sexual division of labour confined women to the domestic labour, including the entire range of food preparation, fetching water, collecting fuel-wood and caring for the family.

At best, this means their potential to contribute to household and community responses is not fulfilled and, at worst, this can result in women’s markedly greater vulnerability to extreme weather events. For example, it is often women who remain behind to run smallholdings when there is poor harvesting of crops and fishes failures resulting in out-migration of men to seek employment in cities. All these are exclusively performed by women. They carry out heavier workload, and perform more time consuming tasks on field and in the household.

Women have extra-load than men because they participate in all activities (agricultural and domestic works). The division of labour in the

study area is quite traditional. This is due to the socioeconomic and cultural constraints against women’s involvement in decision-making power. Certain jobs are reserved for men and others for women. The results of the present study regarding major social constraints against women’s involvement in decision-making power of the respondents given in Table 5 show that most of the respondents were illiterate (88%), low self confidence of women in making farm decisions (76%), women lack of knowledge about farming (58.7%) and 57.7% of women are only subordinate to male counterparts as well as poor access of farm information (48.9%). In consent with the low educational level of rural women a case study was observed in Nankana Sahib, Punjab district by Nazir et al. (2013).

The other constraints which inhibit women's participation in development endeavors are heavy domestic workload, low time spent away from home, less freedom of movement than men and low educational status. If women are given more rights, taboos are broken, cultural attitudes towards them change, women’s labour contribution could be appreciated.

Similarly, study was conducted by Mondal (2013) who revealed that women farmers are overwhelmingly left out of many forms of

communication channels that are critical to their ability to adapt to a rapidly changing climate. This is due to many factors linked to social norms and work burdens that result in women missing out on key information and education. This could be one way by which we can eradicate poverty, enhance food security and improve livelihood. Evidently, development, food security and poverty alleviation will not be truly achieved without rapid agricultural growth. Increasing of agricultural productivity is central to growth, income distribution, improved food security and alleviation of poverty in rural Africa (FAO, 2010).

In all of these, the rural woman plays a pivotal role, and they are crucial to the overall success of efforts directed at agricultural development in rural areas.

Conclusion

The contribution of women to agricultural and food production is highly significant but it is impossible to verify empirically the share produced by women in the study area. Women's participation in rural labour markets varies considerably, but invariably women are grossly unpaid. They are often given seasonal and part-time work, and this study clearly shows that they are also paid less for the same work that men perform. As noted earlier, women play a significant role in the agricultural labour force and in household activities, although to a varying degree. Women make up in any agricultural labour force over 50% in the study area. As a result, their contribution to agricultural output is undoubtedly extremely important, although it is difficult to quantify with any accuracy. Rural women often manage complex households, and pursue multiple livelihood strategies with tremendous fortitude. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

ACKNOWLEDGEMENT

The author wish to profoundly thank the Delanta District people and Administration for providing him with the necessary support, and data for the study.

REFERENCES

Abdelali-Martini M (2011). Empowering women in the rural labour force with a focus on agricultural employment in the Middle East and North

- Africa (MENA). Enabling rural women's economic empowerment: institutions, opportunities and participation. Accra, Ghana, 20-23 September 2011.
- Ashwill M, Blomqvist M, Salinas S, Ugaz-Simonsen K (2011). Gender Dynamics and Climate Change in Rural Bolivia. (Washington, D.C.: The World Bank).
- Boakye-Achampong S, Mensah JO, Aidoo R, Osei-Agyemang K (2012). The role of rural women in the attainment of household food security in Ghana: A case study of women-farmers in Ejura-Sekyeredumasi District. *Int. J. Pure Appl. Sci. Technol.* 12(1):29-38.
- Cerceau S (2012). Gender equality in access to health care: The role of social health protection: A case study on India's national health insurance scheme Rasthriya Swasthya Bima Yojana. Discussion Papers on Social Protection.
- Chayal K, Dhaka BL, Poonia MK, Tyagi SVS, Verma SR (2013). Involvement of farm women in decision- making in agriculture. *Study Home Comprehension Sci.* 7(1):35-37.
- CSA (Central Statistical Agency Projection) (2015). Population and housing census of Ethiopia: The results for Amhara Region. Addis Ababa, Ethiopia.
- Dawit DG (2012). Assessment of biomass fuel resource potential and utilization in Ethiopia: Sourcing strategies for renewable energies. *Int. J. Renew. Energy Res.* 2(1):131-139.
- DFID (Department for International Development), (2014). Fair trade, employment and poverty reduction in Ethiopia and Uganda Final Report to DFID, April 2014.
- FAO (Food and Agriculture Organization) (2010). Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty. Status, trends and gaps. Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development and the International Labour Office, Rome, Italy.
- FAO (Food and Agriculture Organization) (2011). The state of food and agriculture 2010-11. Women in agriculture: Closing the gender gap for development. Rome, Italy.
- IFAD (International Fund for Agricultural Development) (2011). Women and rural development: Enabling poor rural people to overcome poverty. Rome, Italy.
- IFAD (International Fund for Agricultural Development) (2014). The gender advantage women on the front line of climate change. Rome, Italy.
- Mondal M (2013). The role of rural women in agriculture sector of Sagar Island, West Bengal, India. *Int. J. Eng. Sci.* 2(2):81-86.
- Mihiret M, Tadesse A (2014). Women's role and their decision making in livestock and household management. *J. Agric. Ext. Rural Dev.* 6(11):347-353.
- Nahusenay A, Kibebew K, Heluf G, Abayneh E (2014). Characterization and classification of soils along the toposequence at the Wadla Delanta Massif, Northcentral Highlands of Ethiopia. *J. Ecol. Nat. Environ.* 6(9):304-320.
- Nahusenay A, Tesfaye T (2015). Roles of rural women in livelihood and sustainable food security in Ethiopia: A case study from Delanta Dawunt District, North Wollo Zone. *Int. J. Nutr. Food Sci.* 4(3):343-355.
- Nazir S, Khan IA, Shahbaz B, Anjum F (2013). RURAL women's participation and constraints in agricultural activities: a case study of district Nankana Sahib, Punjab. *Pak. J. Agric. Sci.* 50(2):317-322.
- Ogato GS, Boon EK, Subramani J (2009). Gender Roles in Crop Production and Management Practices: A Case Study of Three Rural Communities in Ambo District, Ethiopia. *J. Human Ecol.* 27(1):1-20.
- Razavi S, Staab S (2010). Underpaid and overworked: a cross-national perspective on care workers. *Int. Labour Rev.* 149(4):407-422.
- Shafiwu AB, Salakpi A, Bonye F (2013). The role of Agricultural Development Bank in the development of rural women in agriculture: A case study of Wa-West District. *Res. J. Fin. Account.* 4(12):168-180.
- UN-Women (United Nations Women) (2014). The World survey on the role of women in development 2014: Gender equality and sustainable development.
- WAOR (Wereda Agriculture Office Report) (2013). Delanta Wereda agriculture and natural resource development department office report. Wegeltena, Ethiopia.