

# Gender Differentials in Access to and Control over Assets, Livestock Inputs and Income from the Sale of Livestock and Livestock Products among Smallholders in Ethiopia

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## Acronyms and Abbreviations

AEZs:	Agro Ecological Zone
CAPI:	Computer Assisted Personal Interview
EIAR:	Ethiopian Institute of Agricultural Research
FAO:	United Nations Food and Agricultural Organization
FHH:	Female Headed Households
MHH:	Male Headed Households
PA:	Peasant Association
UMB:	Urea Molasses Block

## Abstract

Looking into the existing gender dynamics in smallholder livestock production system mainly with regard to access to and control over productive assets by men and women smallholders gives insights into existing intra and inter household gender differentials by and large. Mainly the degree of participation of the household head, the spouse and other members of the household in access to and control over specific assets and decision making over the use of different types of inputs, services, technologies and agricultural tools showed significant differences. LIVES project survey result showed that woman in male headed households had lesser control on technologies and livestock related services. In the context of female headed households the woman as the head of the household seemed to have the monopoly of control over resources, however, she depended on male relatives and partners to make use of technologies such as water pumps and to access to some livestock related services. This is partly due to gender norms that constrain women's use of certain technologies in the farm context as well as cultural impositions over women's physical mobility beyond the village to access also services located in other areas. The survey finding indicated a clear gender differentials on the participation of men and women in selling livestock and livestock products and controlling over the income after the sale. However, the participation in selling livestock by men and women differs by livestock type. The findings are based on a household baseline survey carried out in four regions of Ethiopia in the year 2014. The survey instruments were systematically designed to capture a gender disaggregated data from 967 FHH and 4037 MHH. 8.3% of the FHH involved in the survey were households inhabited by a female household head with a male partner. The survey was involved 10 zones, 31 districts and 30 PAs

**Keywords:** Gender differentials, access and control, livestock and livestock products, decision making, gendered incentives.

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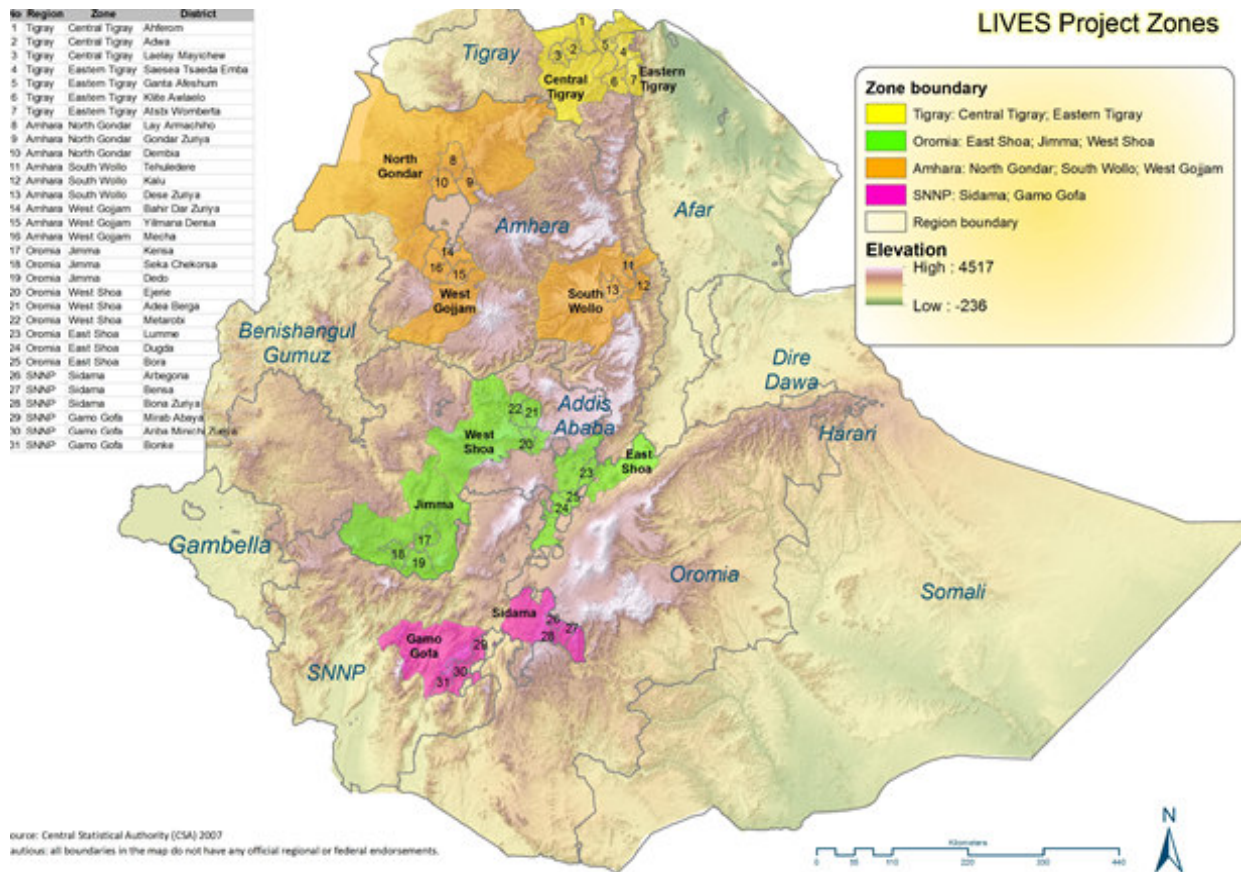


Figure 1: Location map of the study sites

## 1. Introduction

This paper provides new insights on existing level of access to and control over productive assets, decision over technology and input use for livestock, decision over the sale of livestock and livestock products and on controlling over the income from the sale by different household members. The analysis involved intra and inter household decision making dynamics.

Looking into the gender differentials related to access to and control over assets, technologies and the degree of control over the income from the sale of livestock and livestock products by either of the spouses or other members of the household provide new insights on the nature of existing gender empowerment among smallholder livestock keepers in mixed crop livestock production system. Ensuring gender equitable access to and control over productive assets, technologies, input/ services and supporting ongoing efforts by creating empowering conditions for women to equally control income circumvents the fear that “many benefits bypass women including business development services such as training and credit” (Aregu, L. and Puskur, R.2011:1). Such a fear supposed to encompass all types of development interventions mainly where new innovations and technologies are introduced along the livestock value chains. This kind of gender constraint has been reinforced by gender norms which in turn deject gender based incentives generated from the livestock marketing.

With regard to livestock, existing evidences suggest that substantial gender differentials are observed not only on access to and control over livestock related gains and incentives but also in terms of important decision making processes on breed selection, preferences on livestock types to keep and the purposes of keeping specific livestock type in specific households by gender, household type, wealth status and age (FAO 2012, Kristjanson, P., Waters-Bayer, A., Johnson, N., Tipilda, A., Njuki, J., Baltenweck, I., Grace, D., and MacMillan, S. 2010). With regard to breed selection, women’s decisions sounds revolving around local breeds due to different gender based causes and constraints that limits women mostly prefer enterprises which requires less capital, skills, input, technology and labour. This is partly due to Women’s multiple responsibilities in the domestic and community sphere apart from their roles in livestock management and production. As a result, they mostly prefer to keep breeds that requires less labour time expenditure as livestock management activities such as feeding the animal, watering, cleaning the pen remains to be women’s role mainly under mixed crop livestock system (Aregu, L. 2014:15 Aregu, L, Puskur, R, Renard, G., Hoekstra, D., 2011). Previous studies claimed that despite the huge involvement of women in livestock production and management, their economic and incentive and recognition remains insignificant (Tangka F.K., Jabbar M.A. and Shapiro B.I. 2000. Tegegne, Mesay, 2012)

Studies including this one further reiterated that there are clear differentials between men and women in the ownership and marketing of certain types of animals. With regard to this Aregu suggested that gender norms partly shape the type of gender roles, the degree of decision making on the sale of livestock and livestock products. In addition, she added that such gender dynamics most often than not are overlooked by the extension service providers and the needs and as a result preferences of women are also not given attention altogether.

As with labor tasks, ownership and control over the sale of livestock and livestock products is differentiated by gender. Women market small livestock such as sheep, goats, poultry as well as dairy products, while men market large livestock such as cattle and pack animals. These gender-differentiated patterns of ownership and control over livestock are not always sufficiently taken into account by extension services and development projects. The recommendations they provide do not necessarily take into account women's needs and preferences (Aregu 2014:15)

Similarly, there are claims that women have big roles in dairy production, processing and marketing as well as in keeping poultry and small ruminants (FAO 2012, Tangka F.K., Jabbar M.A. and Shapiro B.I. 2000). These claims, however, mainly in the context of Ethiopian smallholder's needs to be supported with new empirical findings. Little has been documented so far about the different gender roles, relationships, with regard to access to and control over livestock related resources and decision making processes in market oriented livestock production system in Africa in general and in Ethiopia in particular (Tangka F.K., Jabbar M.A. and Shapiro B.I. 2000:5). One exception to this is a recently published book with empirical evidences on livestock and women in three African countries, namely, Kenya, Tanzania and Mozambique (Njuki,J. and Sanginga, P.C.(eds), 2013). Unlike the crop system, few studies have been conducted in relation to gender differentials in the livestock system (Yisehak, Kechero, 2008, Farnworth, C. and etal 2014). Moreover, gender differential related facts and evidences vary according to temporal and spatial dynamics where a specific smallholder community inhabits. Fresh evidences for example can reveal new and emerging trends which could further show us that women do play a greater role than previously thought in decision-making in agriculture including in the adoption of agricultural technologies (A. Tiruneh, T. Tesfaye, W. Mwangi, and H. Verkuijl. 2001). Therefore, conducting rigorous studies on gender differentials in livestock production and decision making in the smallholder household economy is vital as it provides information for policy makers and development practitioners over time.

This paper fills the gap left in research mainly with regard to gender differentials in the livestock sector of Ethiopia particularly in the context of the four LIVES intervention regions where mixed crop-livestock system exists. Specifically, it identifies the structure and patterns of production and composition of livestock reared, input/technology used and output produced. In addition, the survey result also showed gender dynamics in the context of household level decision making on livestock input use, men's and women's involvement in selling livestock and livestock products, control over the income from the sale and gender differentials in accessing productive assets and technologies at the household level.

In the livestock production system, improving production, productivity and household income mainly depends on adoption of technologies, applying improved practices, creating access to financial resources, availing productive assets (mainly land) enhancing use of inputs and facilitation of access to market related information and by providing agribusiness development supports and services. Although gender relations affect production relationships within and across households mainly in terms of equal participation in goal setting and prioritization, mobilization of resources and making use of decision making powers, willingness to take risks, and the decision-making process regarding the rights to incentives derived from increased livestock production and marketing. This has its own implications on value addition on livestock products; in sustaining market oriented production processes and on the transformation of subsistence smallholder production into deliberately planned gender inclusive and market oriented livestock value chain development and governance by men and women smallholders.

The synthesis from LIVES base line survey provides further insight on access to and control over selected household resources, the interaction among household members on the sale and control over livestock and livestock products and decision making roles on livestock input use. However, this study limits itself from using household decision making models such as collaborative conflict (Sen, A. 1987) unitary, none cooperative and cooperative household decision making models as sketched in recently published book titled "Livestock Ownership and Markets: Bridging the gender gap in Eastern and Southern Africa" (Njuki,J. and Sanginga, P.C.(eds), 2013)

## **2. Methodology**

This study is based on data collected from a household baseline survey conducted in 2014 by ILR/LIVES project. The baseline was conducted in 10 LIVES project zones, 31 project and corresponding control districts where a total of about 5004 randomly selected households were interviewed from 530 PAs. The household survey

collected data on a wide range of issues on livestock and irrigated crop production. However, for this particular paper, we used data on livestock production system mainly emphasizing on access to and control over productive assets, livestock production and intra and inter household (FHH and MHH) decision making related to input use, selling livestock and controlling over the income generated from the sale of livestock and livestock products.

### **2.1. Engendering the Baseline Instruments**

During the planning phase of the household baseline survey in 2013, LIVES team developed a gender disaggregated instrument with the objective of capturing key gender issues related to livestock value chain development and governance with greater emphasis on men and women smallholder livestock keepers in both male and female headed households. The gender disaggregation involved both male and female headed households (FHH) to see the gender dynamics in both types of households. After getting the sampling frame (list of households) in each PA, the list was rearranged into female and male headed households. Then the sample size for female and male headed households was determined by the proportion of the total household size. Therefore, the samples were selected systematically from the list prepared separately for both male headed and female headed household types. Additionally, the data collection instrument was deliberately prepared to capture gender disaggregated information from male headed households as well.

To ensure the quality of the data, the Computer Assisted Personal Interviewing (CAPI) system with CSpro database programming was used for data collection. Besides, the survey instrument was pre-tested in three of the LIVES zones and revisions were made based on the observed feedbacks. Training was organized for the enumerators and supervisors both on the household survey instrument and the operational aspect of the CAPI.

### **2.2. Data Collection and Analysis**

The data collection was conducted for three months involving 50 enumerators and 10 supervisors. One year production data (September 2012 to August 2013) was collected. The data was analyzed using SPSS and the survey result is presented in descriptive statistics using percentages and means.

## **3. Discussion**

### **An Overview on Gender Differentials on Access to and Control over Assets, Technologies and Income from the sale of Livestock**

In this study, access was defined as the right to use a resource/benefit and control was defined as the right to make decision about the use of a resource/benefit. At the household level, access can also indicating the closeness of a particular household member to household owned materials, livestock, livestock products and household based enterprises based on socio-culturally established gender roles and relations. For each type of asset, technology and income (by type of product sold and kind of asset owned) about 10 possible access and control options were included in the survey instrument. These include 1. Head only, 2. Spouse only, 3. Head and Spouse, 4. Male Children only, 5. Female Children only, 6. Male and Female children, 7. All Household Members, 8. Father/Mother of the head 9. Father/Mother of the Spouses and 10. Others (specify). For precision's sake, in this paper, we took only four of the categories, namely: Household Head only, Spouse only, Household and Spouse only and All Household Members. Access to and control over household owned assets structured differently for MHH and FHH. It was also showed differentials between household head and spouse in male headed households as well as in female headed ones. Ultimately, the survey finding clearly showed the decision making trend adopted in MHH and FHH.

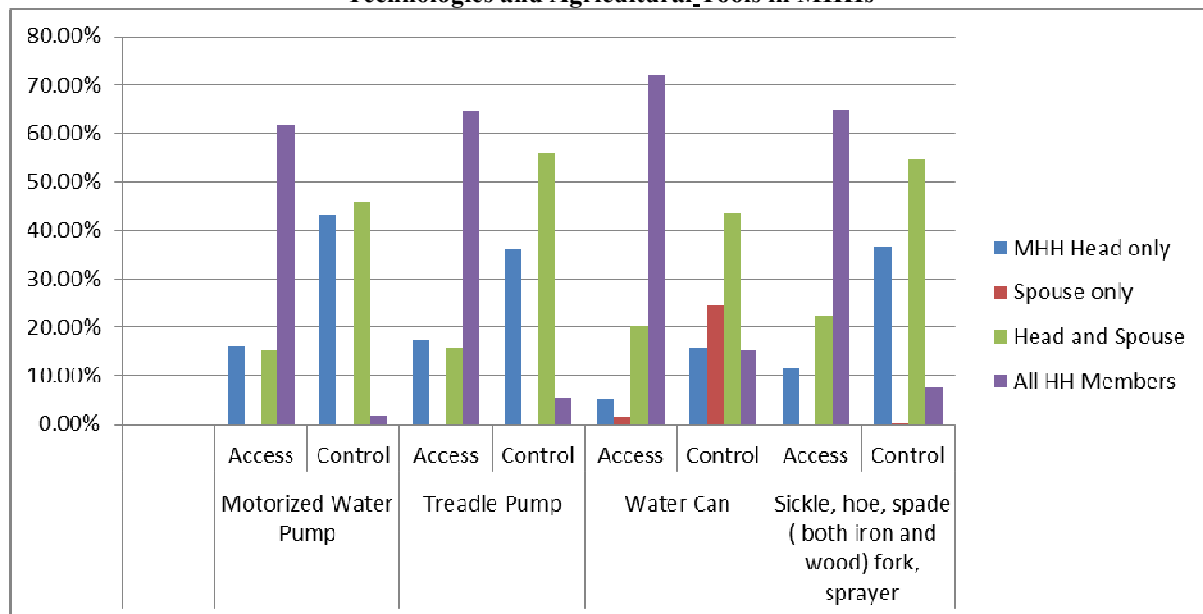
### **3.1. Gender Differentials in Access to and Control over Intra household Water Use related Technologies and Agricultural Tools in MHH**

Under household water technology related household assets, three water related technologies were included in the survey, namely, Motorized Water Pump, Treadle Pump and Water Can. The result of the survey indicated that most household members had access to the aforementioned household owned water use related technologies. For instance, 62%, 65% and 72 % of interviewed respondents were confirmed that all household members had access to Motorized Water Pump, Treadle Pump and Water Cans respectively. There were observable intra household gender differentials in control over water use related technologies in MHHs. The decisions with regard to the use of technologies mainly made either by head of the household only or the head in consultation with (his) spouse. Hence, 43%, 36% and 16% of interviewed respondents were confirmed that Motorized Water Pump, Treadle Pump and Water Can respectively were controlled by the head of the household in MHHs. In the other hand, 46%, 56% and 44% of the survey respondents were stated that Motorized Water Pump, Treadle Pump and Water Can respectively were controlled by both heads of the household and therefore both were jointly decided over its use in MHHs.

Water use related technologies for livestock production is of paramount importance because farmers use irrigated crop residue for livestock, grow livestock feed using irrigated water and also male and female farmers

use Water Cane to watering livestock and also carry water for cleaning the pen. As the survey result showed, women in MHH seem to have much control on Water Can as they are mostly responsible to fetch water for domestic use as well as for watering livestock stalled around the homestead. In the context of MHHs, the survey result showed that the spouse cannot decide on the use of Motor and Treadle Pumps on her own except in the case of Water Can where 24.4% respondents were reported that the spouse had control over it (See Fig 1). With regard to the control of the spouse over Motor and Treadle pumps lower percentage of respondents were confirmed positively.

**Fig 1: Intra household Gender differentials on Access to and Control over Water Use related Technologies and Agricultural Tools in MHHs**



The major agricultural tools owned by sample households and considered for this analysis includes sickle, hoe, spade made up of wood and iron, fork and spade. In terms of access to these agricultural tools 65%, 22.3% and 11.3% of were responded that all household members, head and spouse and head only respectively had access to these tools in MHH. With regards to control over these agricultural tools in the context of MHHs, 37% and 55% of respondents were confirmed that the head of the household and both the head and spouse respectively were controlled agricultural tools (see Fig. 1).

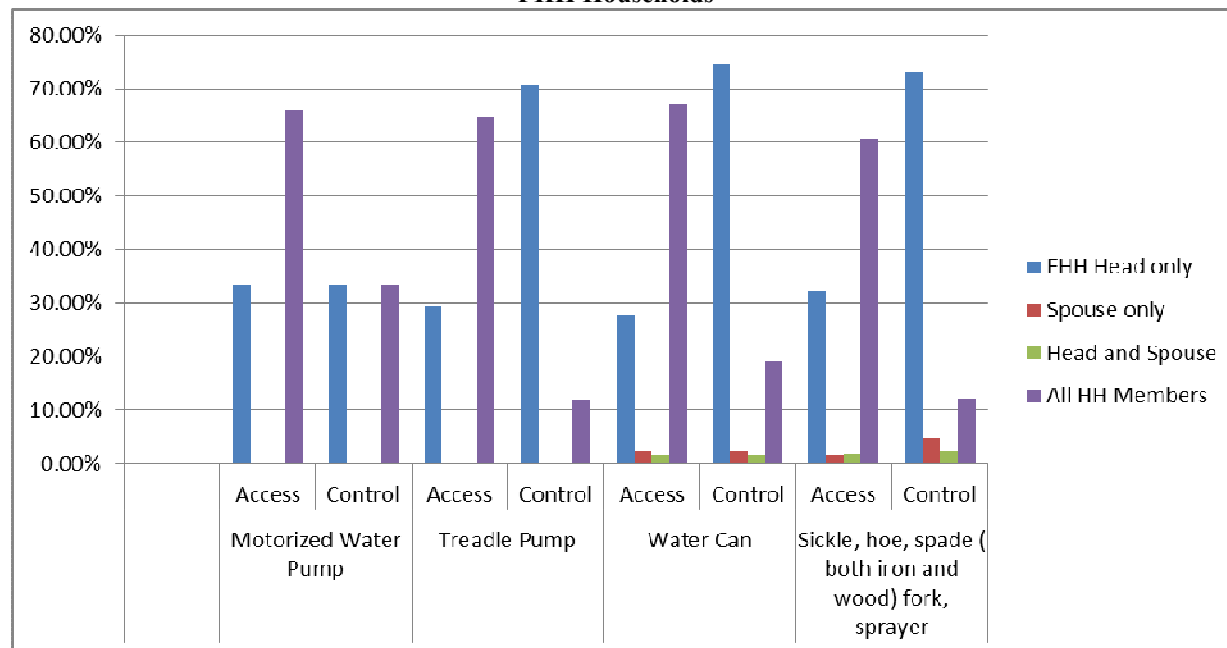
### 3.2. Intra household Gender Differentials on Access to and Control over Water Use related Technologies and Agricultural Tools in FHH

In FHHs, the two major household members who have access to and control over resources are either the head of the household or all members of the household. For instance, 33.3% of respondents suggested that the head of the household and all members of the household have control over motorized water pumps. Respondents were suggested that in most of this water use related technologies, the household head had bigger control but she had lesser access which was in turn indicating that the technologies were equally accessed by all household members. This is partly; it is the male members of the household in the context of FHH who are carrying out farm level activities using pumps in irrigation sites than the head of the household. This assertion is reconfirming by a survey result recently reported by LIVES graduate fellow who did her study in Lume district within the central rift valley of Ethiopia (Kalkidan 2015). The gender norm, absence of gender friendly technologies, lack of skill and less conduciveness of the work environment for women would contribute for lesser involvement of women in using most of water use related technologies in a farm context (See fig 3 on gender differentials on access to and control over irrigation/water use related technologies and agricultural tools).

With regard to FHH, from 33.3% to 74.5 % of respondents were confirmed that the head had much control over water use technologies and agricultural tools. However, 33.3% to 67.7% of respondents were also confirmed that all household members had control over water use technologies and agricultural tools. This is due to the involvement of male and female youth within FHH and also male partners in outside farm activities using all types of water use technologies and agricultural tools as the head women in the household cannot engage herself on agricultural activities on a farm context in most of the time. She would rather focuses on the overall management and administration of the household asset, work flow and allocation of labour and resources than directly involved in the actual farm activity. A number of socio-cultural, health related constraints, gender neutrality of water use and farm technologies and the labour intensiveness of farm work itself shapes the degree

of engagement of the head in the farm work in the context of FHH.

**Fig 2: Intra household Access and Control over Water Use related Technologies and Agricultural Tools in FHH Households**



### 3.3. Inter Household Gender Differentials on Access to and Control over Water Use Technologies in FHH and MHH

While comparing between the two types of households, all members of the household do have access to water use related technologies consistently in both FHHs and MHHs. However, when coming to control in the case of MHHs, higher percentage of respondents were suggested that the control is consistently under both spouses whereas respondents were also suggested that the head of the household was second in rank in controlling these water related technologies. In this case, the household head has some autonomy in making decisions over water use related technologies on his own with little direct involvement of the spouse. And yet the survey result consistently showed that joint decision making was seemed to dominate for most water use technologies and agricultural tools mainly in MHH.

In the case of FHHs, it is safe to say that the head of the household has much control over water use related technologies than in the case of MHHs. This can be reasoned out that the male partners in the case of female headed households traditionally do not have equal wedlock right (land ownership, ownership over assets and other major household possessions) to equally control productive resources jointly with the spouses. As a result, he has little decision making share as the socio-cultural norm and legal privileges dictates the intra household gender relations including involvement at individual level or to have equal stand in joint decision making processes. However, all family members in FHH seemed to enjoy control over most water use technologies and farm tools as major role players in the actual farm work with maximum guidance, control and management under the head of the household.

### 4. Gender Role in Selling and Control over Income from the Sale of Livestock and livestock Products

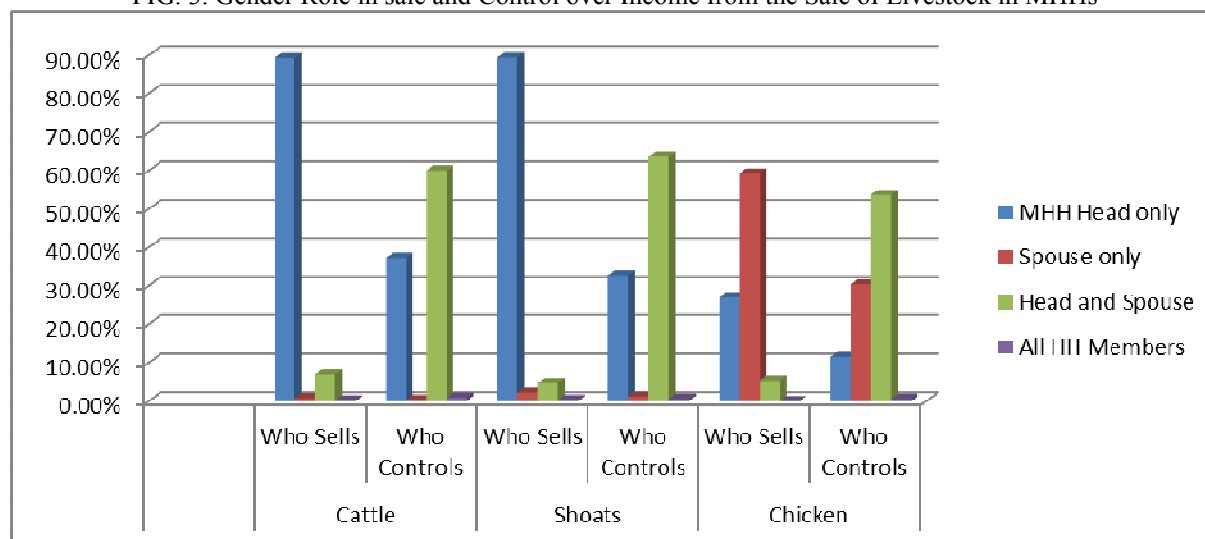
In terms of marketing livestock and control over income, the survey result showed a gender variation mainly in terms of participation of the head and the spouse during the sale and control over income after the sale. This depends on the household type (MHH and FHH) and the kind of livestock and livestock products to be sold. In the context of MHHs, the head of the household sale cattle and shoat.

From the total sampled MHHs, 89.3% and 89.4% respondents were confirmed that the head (male) sale cattle and shoat respectively. Whereas 59.2% of respondents were reported that selling chicken was carried out solely by the spouse in MHH households. Regarding the control of the income from livestock, 37.3% respondent were suggested that the head of the household controls the income where as 60% respondents were suggested that the income from the sale of cattle was controlled jointly by the head of the household and his spouse. Only 0.3% respondents were confirmed that the wife solely controls income from the sale of cattle where as 0.9% respondents were responded that all household members control the income from the sale of cattle. Eventually, that the baseline result was indicated that there was a trend that both the spouse and the head were jointly controlling income from the sale of cattle despite the fact that it was the head of the household who sale shoats

and cattle in the market. Thus, whoever sales livestock and livestock produce the use of income was dominantly put to use based on joint decision by the head of the household and the spouse.

The survey data were confirmed this long time claim by researchers and development practitioners especially with regard to cattle. Similarly, for shoats the survey finding confirmed prior claims made by previously done research with regard to gender and small ruminants (FAO 2013). This is because, the survey result showed that the larger part of the income from the sale of sheep and goat were controlled either by the head of the household or jointly by both spouses. FAO publication in 2013 also confirmed that decision to sell small ruminants mainly is the man’s responsibility. Accordingly, the survey finding showed that 89.4% respondents were suggested that the head of the household in MHHs was responsible for the sale of shoats. Only 1.2% respondents were suggested that the income from the sale of shoats was controlled solely by women in MHHs households. Similarly insignificant percent of (0.6%) respondents were suggested that the income from the sale of shoats was controlled by all household members. About 33% of respondents were suggested that the head of the household did control income from the sale of shoats in MHH households. Close to 64% of the respondents were confirmed that both the spouse and head jointly control income from the sale of shoats in MHH households. There was similarity between cattle and shoats that larger number of respondents (60% for cattle and 63.6% shoats) were suggested that both the head and the spouse jointly control income from the sale of the animals. While small number of respondents (1.2% for shoats and 0.3%for cattle) were responded that the income from the sale was controlled solely by women in MHH households. The term control here refers to decision making over the allocation of the income generated from the sale of livestock instead of referring to using the money by either of the spouses for personal use without consultation to any of the household members. The result of the survey consistently indicated that joint decision over income generated from the sale of livestock seemed the norm in most cases than it is an exception.

FIG. 3. Gender Role in sale and Control over Income from the Sale of Livestock in MHHs



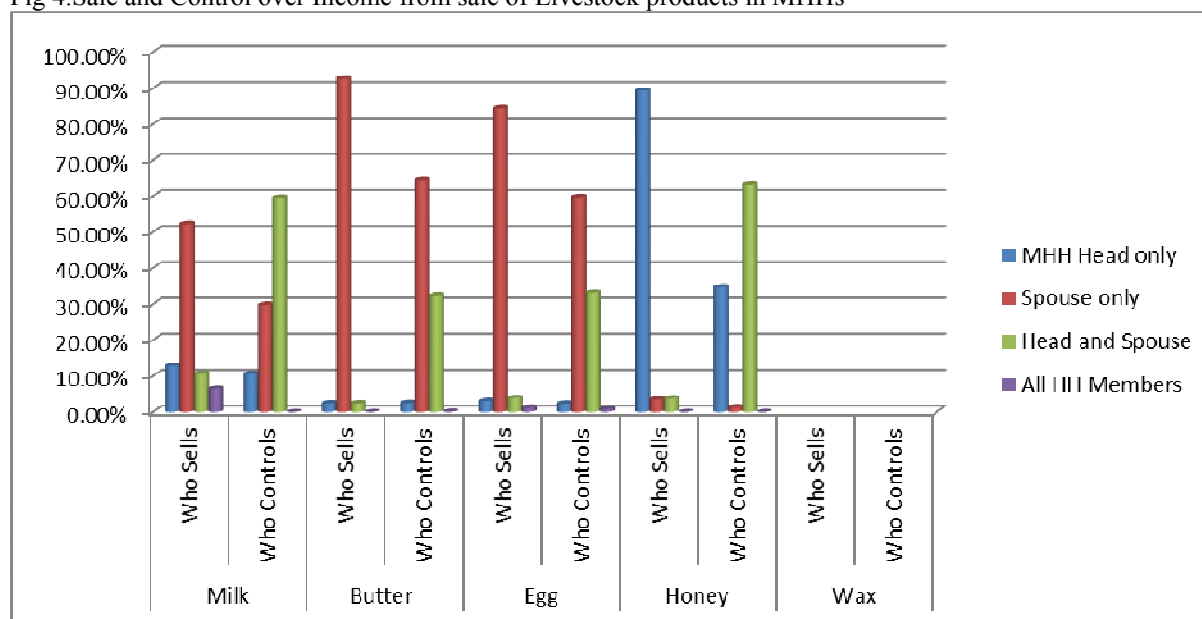
In general, the income from gender friendly livestock types known to be empowering women by and large. For instance, regarding the sale and control over income from the sale of chicken, 59.2% of respondents were suggested that the spouses are responsible for the sale of chicken in MHHs. About 27% of respondents were also confirmed that the head of the household in MHH households could involve in the sale of chicken as well. Only 5.3% of respondents were suggested that both spouses could involve in the sale of chicken. However, with regard to the control over the income generated from the sale of chicken, about 54% of respondents were suggested that both the head and the spouse would control it where as close to 30% of respondents were confirmed that the spouse in MHHs would control the income from the sale. It was only 11.5% of respondents were suggested that the head of the household in MHH households control income from the sale of chicken. The survey result also confirmed that small scale poultry production among smallholders were women’s enterprise as it was also reflected by women’s higher role in the sale and control over the income from the sale.

The survey result on livestock sale and control over income consistently suggested that in MHH, both the head and the spouse jointly control income from the sale of most livestock types. However, the heads of the household were said to be the one who was involved in the sale of cattle and shoat while women were involved in the sale of chicken. The level of control over income from chicken is dominantly controlled by women as they are central to household based poultry production in most part of the world (FAO 2013). The survey finding is consistently confirmed with existing literatures on gender and poultry production.

#### 4.1. The Sale of Livestock and Control over Income from Sale

Fluid milk, butter, egg and honey were the four major livestock produce included in the survey. The finding showed that apart from honey, women in MHH households were largely involved in selling and controlling the larger share of the income from milk, butter and from the sale of egg. However, joint decision by the two spouses was equally observed in the survey finding. Despite the belief that apiculture is dominantly men's enterprise, joint decision on the income from the sale of honey was also observed. Hence, 29.8%, 64.4% and 59.8% of respondents were responded that women in MHH households were controlled income from the sale of milk, butter and egg respectively. The percentage of responds reported on joint control by both the household head and the spouse was 63.3% for honey, 59.6% for milk, 32.4% for butter and 33.2% for eggs. Respondents were suggested that women were leading in selling milk, butter and egg while men are the ones who were mostly involved in the sale of honey. The percentages of households who was reported that women were responsible for selling most livestock produce was 53.2% for milk, 92.7% for butter and 84.5% for eggs. Only 3.5% of respondents suggested that women were involved in selling honey.

Fig 4. Sale and Control over Income from sale of Livestock products in MHHs



In a nut shell, higher percentage of respondents were suggested that men were involved in the sale and control over the income from shoats, cattle and honey. Women mainly were involved in the sale of livestock produce which include milk, butter, cheese and egg. In the other hand, the survey result also was confirmed that both the head and the spouse were jointly controlled and made decisions on the income from shoats, cattle, chicken and honey. This joint decision making trend equally applicable to those commodities conventionally believed to be women's domain or under the control of women which include milk, butter and egg. Thus, based on the information from the survey it is possible to suggest that a substantial part of the income from the sale of women dominated livestock commodities was remained under joint decision by both spouses than to be controlled by women only. In the absence of mutual cooperation between the head of the household and the spouse it would be unlikely to expect that joint decision would become the norm across farming households. Household type, existing gender norms in a specific contexts, the level of literacy and gender awareness, the degree of gender machineries to support women's empowerment through facilitation to create access to productive resources and capacity development would contribute to maintain gender equality mainly in terms of gendered incentives.

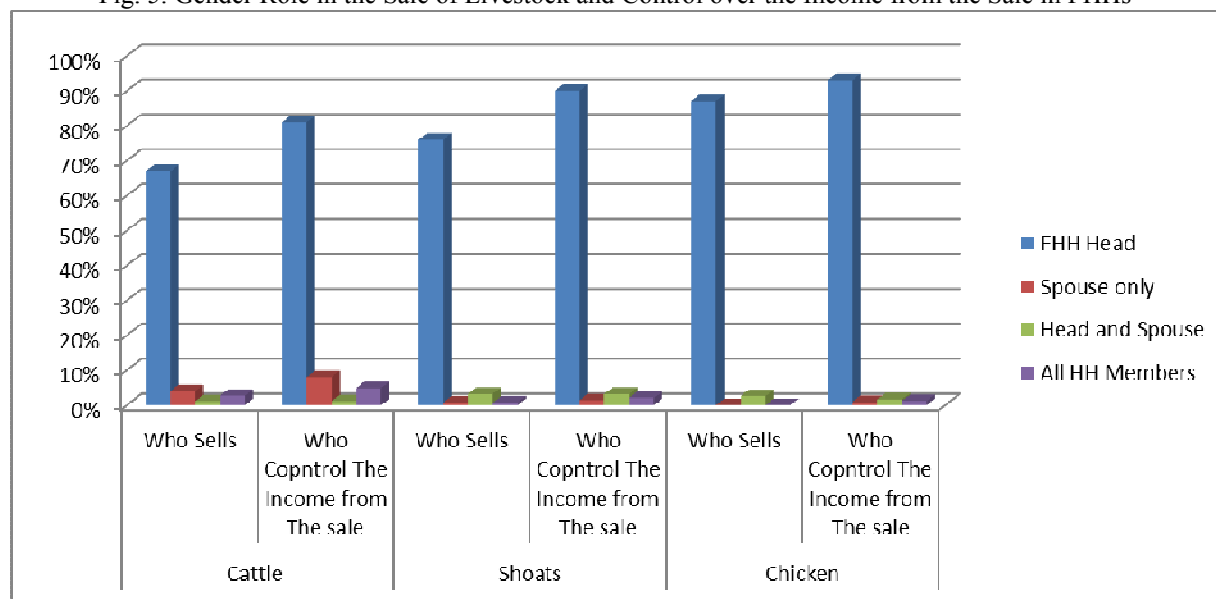
#### 4.2. Gender Role in the Sale of Livestock and Control over Income from the Sale in FHHs

Cattle are the most important asset for FHHs who want to engage in dairy, tilling the land or to engage in fattening large ruminant. About 81% of respondents were suggested that the head of the household was the one who controlled income from the sale of cattle. However, 8.1% of respondents were suggested that the spouse in FHHs also controled the income from the sale of cattle.

However, in the case of MHH households' respondents were suggested that joint control over the income from the sale was dominant than total control of the money by either of the spouses. In the case of FHHs, 4.9% of respondents were suggested that all household members had the control over the income from the sale of cattle which is not the case in the context of MHHs. In the case of FHH households' joint decision by the head and spouse over the income from the sale of cattle was minimal.



Fig. 5. Gender Role in the Sale of Livestock and Control over the Income from the Sale in FHHs



About 93% of respondents were reported that the head of the household would control income from the sale of chicken in FHHs. In the context of this household type, only 1.6% of the respondents were suggested that the income from the sale of chicken was controlled jointly by the head and the spouse. Coming to involvement in the sale of chicken, 87% of the respondents were reported that the head in FHHs was involved in the sale of chicken. The data consistently showed that women as the head of the household in FHH had much involvement in the sale and control over income from the sale than the spouse (women) in MHH even for those livestock types which were mainly managed by women. Similarly, about the joint control over income and the joint decisions made consistently were confirmed by larger percentage of respondents for MHHs which was not the case with regard to FHH.

The management of Shoats are conventionally believed to be the domain of men and women relatively in equal terms (FAO 2013). However, the survey result was suggested that men in MHHs were involved in the sale of shoats than their spouses. Substantial percentages of respondents were reported that the income from the sale of shoats was to be controlled jointly by the head and the spouse. Significant percentage of respondents were also reported that the household head was controlled income from the sale of shoats as he is the one largely involved in the sale of the animals.

In the case of FHHs, 76% and 85.5% of respondents were confirmed that the household head was involved in the sale of shoats and controlled over the income from the sale respectively. Only 3.2% of the respondents were reported on joint control of the income by the head and the spouse from the sale of shoats. The spouse in FHHs had little share of entitlement to get involvement in the sale and in engaging in joint control of the income from the sale of shoats.

Apiculture in general and honey production and sale in particular are considered as male dominated enterprises in most parts of Ethiopia (Sisay, G. undated). In the case of MHHs, the survey finding was suggested that the head of the household had largely involved in selling honey and also controlled larger part of the income than his spouse. However, bigger percentage of respondents were suggested that the income from the sale of honey was mainly kept under the joint control of the spouses.

In the case of FHH households, 96.4% of respondents were suggested that it was the head of the household that was mainly involved in the sale and control over the income from the sale of honey. However, it is also obvious that the proportion of FHH households involved in apiculture is insignificant due to lack of access to skill training, improved technology and input as well as due to existing social norms which discourage women to involve in apiculture in general. From the sample households 3.6% of the respondents were reported that all members of the household also had control over the income from the sale of honey. However, despite the consideration that the spouse in FHHs is providing labour and service to the household, none of the respondents were given confirmation on the involvement of the spouse in the sale and control over income from the sale of honey.

#### 4.3. Gender Differentials in the Sale of Livestock Produce and Control of the Income in FHHs

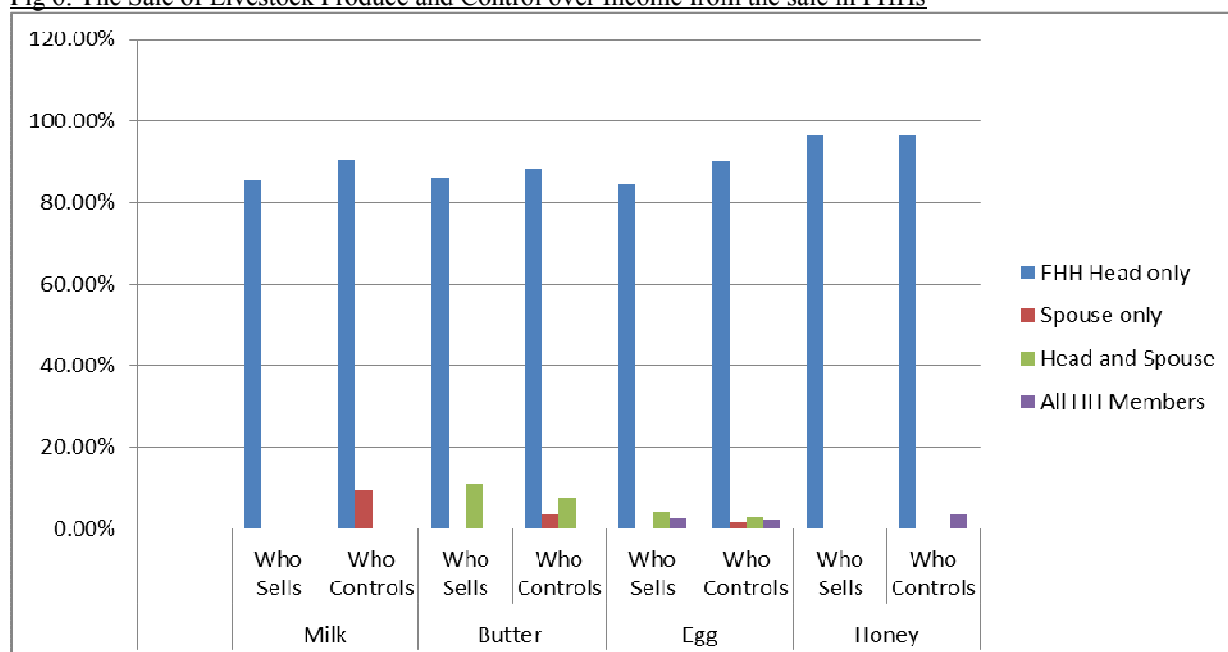
In FHHs, the household head seemed mainly responsible for the sale of all animal produce. Hence, about 85.7%, 86% and 84.6% of the respondents were reported that the head was responsible for the sale of milk, butter and

egg respectively. The spouse had no role in the sale of livestock produce while about 2.5% of sample households were reported that other members of the household were having roles in the sale of livestock these produce.

Similarly, in most FHH the head had high control over the income from the sale of livestock produce. For instance, 90.5%, 88% and 90.2% of interviewed respondents were reported that the head of the household was controlling the income from the sale of milk, butter and egg respectively. Despite the limited role in the sale of animal produce, the spouse in FHHs had control over the income from the sale of the produce. Hence, 9.5%, 3.7% and 1.6% of interviewed households were reported that the spouse controlled over the income from the sale of milk, butter and eggs. In the case of income from egg, 2.2% of sample households were reported that other household members (mainly children) also had control over the income. This is because poultry production is believed to be a business where children can also be involved (FAO 2013).

For milk, butter and egg, from 84.6 to 86.1% respondents were suggested that it was the head of the household who sale the aforementioned livestock produce in the case of FHHs. Respondents were also suggested that unlike other livestock types, the spouse in FHH household's had control over part of the income although he never involved in the sale of these livestock produce. Significant percentage of respondents were stated that there were joint control of income by the head and the spouse mainly from the sale of butter and egg.

**Fig 6: The Sale of Livestock Produce and Control over Income from the sale in FHHs**



#### 4.4. Intra-household Gender Differentials in Decision Making over Livestock Input Use

The survey result showed that in MHHs decision over livestock input use is either to be made by the household head or jointly by the spouses though there were some differences by input and commodity types. The survey result was indicating that with regards to use of new technologies the head of the household monopolize decisions. For instance, 100% of respondents were stated that the head of the household was decided solely on improved input types such as improved livestock breed and day old chick. Similarly, 100% of respondents were also reported that the head of the household made decision over the purchase of beehives. About 40% of the survey respondents were reported that purchase of bee colony and beekeeping accessories was decided jointly by the household head and the spouse. A significant percentage of respondents were suggested that joint decision by both head and spouses dominates in terms of purchasing animal feed and also to access livestock related services.

Table 1: Intra-household Gender Differentials in Decision Making on Livestock Input use in MHHs

Livestock Input/Service Type	MHH Head only	Spouse only	Head and Spouse
<b>Animal Feed</b>			
Forage	59.4 %	0.6%	40 %
Grain as Feed	34.3%	7.6%	58.1%
Compound Feed	68.2%	4.5%	27.3%
Bran	42.5 %	2.1 %	55.4 %
Oil Cake	51.3%	0.9%	47.8%
Salt	38.4%	2.0%	59.7%
Hay	45 %	0.6 %	54.4%
Urea Molasses block (UMB)	66.7%	0%	33.3%
Molasses	40%	0 %	60%
Poultry watering and feeding equipment for poultry	%	%	%
<b>Breed</b>			
Improved breed	100 %	0 %	0 %
Local Breed	22.2 %	0 %	77.8 %
<b>Beekeeping (Input)</b>			
Beehive	100%	0%	0%
Colony	60%		40%
Beekeeping Equipment	60 %	0 %	40%
<b>Service</b>			
Vaccine	49.4 %	0.4 %	50.2%
Drug	50 %	0.5%	49.5%
Artificial Insemination	42.9 %	0%	57.1%
Bull Service	33.3%	16.7 %	50%
Veterinary Service	44.7%	0.3 %	55%
Day old chick	85.7 %	0%	14.3 %
Fee for bee colony splitting services	0%	0%	0%
Other (Specify)	44.3 %	8%	47.7 %

#### 4.5. Intra-household Gender Differentials in Decision Making on Livestock Input use in FHHs

In the context of FHHs, in most of the sampled households' decisions over the use of modern livestock inputs and services was made solely by the head of the household. There were also a few cases where the spouse could make decisions on his own on locally available livestock inputs such as hay, grain etc. In terms of livestock related services the spouse could make decisions on buying drugs and veterinary services which would require urgent decision to prevent livestock morbidity. A Small percentage of respondents (3.4% to 5.4%) were suggested that joint decision was also made by the head and the spouse on inputs such as hay, forage and salt. Joint decision by the head and spouse was also made in some households on services such as vaccine, drug and veterinary services in general.

Table 2: Intra-household Gender Differentials in Decision Making on Livestock Input use in FHHs

I. Livestock Input/Service Type	FHH Head only	Spouse only	Head and Spouse
<b>Animal Feed</b>			
Forage	96.6 %	0 %	3.4%
Grain as Feed	96.9%	3.1 %	0 %
Compound Feed	100%	0%	0 %
Bran	100 %	0%	0%
Oil Cake	100%	0 %	0%
Salt	96 %	0.6%	3.4%
Hay	94.6 %	0 %	5.4 %
Urea Molasses block (UMB)	100%	0%	0%
Molasses	0%	0%	0 %
Poultry watering and feeding equipment for poultry	100 %	0 %	0%
<b>Breed</b>			
Improved breed	100%	0%	0%
Local Breed	100%	0%	0%
<b>Beekeeping (Input)</b>			
Beehive	100%	0 %	0%
Colony	100%	0%	0%
Beekeeping Equipment	0%	0%	0%
<b>Services</b>			
Vaccine	96.4%	0%	3.6%
Drug	91.9 %	4.3 %	3.8%
Artificial Insemination	100%	0%	0 %
Bull Service	100 %	0 %	0%
Veterinary Service	91.8 %	3.5%	4.7%
Day old chick	0%	0 %	0%
Fee for bee colony splitting services	0 %	0%	0%
Other (Specify)	81.3%	18.8 %	0%

LIVES Household Baseline Data 2013

### Conclusion

This paper is mainly focused on gender differentials related to access to and control over productive asset, livestock resources and financial income from the sale of livestock and livestock products in the context of smallholders involved in livestock production. Gendered decision making process on accessing to and controlling over livestock related services, input and improved technologies provided insight on the impact of gender norms in intra household decision making processes reiterated in the paper provides new insight. In depth understanding of existing trends related to decision making processes would enable experts to see existing realities critically and to positively contribute their share towards ensuring gender inclusive livestock value chain development and transformation. Furthermore, involvement in the sale of livestock and livestock products and the degree of control over income from the sale by the household heads and the spouses remained to be one of the delicate gender issues among smallholders engaged in market oriented livestock keeping.

The survey findings proved that there are greater intra and inter household gender differentiation between male and female smallholders in terms of access to and control over resources and over the monopoly of decision making on input use and in the use of income generated from the sale of livestock and livestock produce. In addition, the findings also indicated that there are greater gender differentiation in between male and female smallholders in taking livestock and livestock produce to sale in the market. This gender differentiation in selling livestock and livestock produce vary according to household types (MHH and FHH) and the type of livestock and livestock produce to be sold in the market.

The survey result consistently showed that in MHH joint decision by household head and the spouse over household owned assets seems the dominant trend. However, gender disparities in controlling over household based assets which includes irrigation technologies, agricultural tools and control over income from the sale of livestock and livestock product by different household members were clearly observed. The survey result further depicted that in FHHs, most of the household assets were controlled by the household head while other members of the household had substantial opportunity to access to most household based assets and control over the income from the sale of livestock and livestock products. In FHH where a male partner cohabit with the household head, there was somehow visible involvement of the male partner in joint decision making over a few of the household based assets and in accessing to input for different livestock types.

The findings help us to see whether women's participation in the livestock sector is based on incentives

or disincentive due to the kind of access to and control over assets, the degree of participation in decision making processes by women and men on input and services as well as due to the level of control over financial income (incentives) gained from the sale of livestock and livestock produce.

The survey result also indicated that in most of the livestock sale in MHHs, the head had greater involvement in selling bigger animals. However, the survey result showed that, in most cases, the income from the sale of livestock was jointly controlled by both spouses. This is equally applied to livestock products which was mostly sold by women. These products mainly include female dominated livestock produce such as milk, egg, butter and cheese. With regard to these livestock products the spouse in MHHs had greater participation in selling but the income was mostly controlled jointly by the household head and the spouse. This trend informed us that the husband and wife in MHH were the ones who were involved in negotiations over the use of the income from the sale of livestock and livestock produce. This showed that most of the livestock types conventionally known to be the domain of women need to be seen as household enterprises mainly contributing for the maintenance of the household's financial and nutritional requirements than entirely controlled and used by the woman's sole decision.

Conventionally, apart from the spouses, different members of the household have stake on incentives generated from the livestock production and marketing. The household unit is also partly obligated to fulfill the demands and incentives of its members based on the roles played in the livestock management task by each members of the household. Household based incentives would play a greater role in enhancing the participation of different household members in the household based livestock enterprises. However, in most rural contexts, gender and socio cultural norms influence the extent of the share of incentive to be gained by different household members based on gender, age, special need and customary status attributed to each member of the household. This partly shapes the value addition role of household member's in the context of improved livestock production where livestock keeping is seen as a household enterprise.

Despite the existence of joint decision over income gained from the sale of livestock and livestock products, in MHH, the man in the house still maintained greater influence according to the survey result. For instance, in MHHs, if the disaggregated survey result would have been showed only the head and spouse's share of decision, the interviewed confirmation for most livestock and livestock products would show that the man in the house had greater degree of decision making share than his spouse. However, higher percentage of respondents were confirmed that joint decision by the spouses remained as a dominant trend followed by greater proportion of decision making power possessed by man in the house.

If the survey finding was disaggregated by regions, differentiations might be arose due to the difference gender norms among various socio-cultural groups found across the four surveyed regions. The joint decision over income in MHHs highly differed from the kinds of decision making trends observed in the context of FHH. This is not only because most decisions in the context of FHH are solely made by the women as heads of the households; rather it is because the participation of a male partners (spouse) during the decision making processes over major household managed resources was restricted due to cultural norms. The socio-cultural norm keep the male partner in the FHH as a passive player as he usually gets into such kind of partnership with very restricted entitlements as the bondage is not equally endorsed as a wedlock. Traditionally, most of the men involved in this kind of partnership with single women are men migrated from other areas and have little access to land, financial resources and then oblige to engage in such informal cohabitation with little entitlement on property or assets owned by the partner or by the household.

There was obvious gender based differentials in both MHH and FHH regarding taking livestock and livestock products to the market to sale and control over income from the sale. The finding related to decision making over input and services, marketing livestock and related production in MHHs showed that there were a number of key areas where both spouses could be involved in making joint decisions. This indicates that the household remains as an important unit to enhance collaborative decision making that can ensure gender equality at the household level. This in turn implies that the household unit stands as an entry point for capacity development, coaching and mentoring and technology adoption through the involvement of couples, youth and other members of the household. However, one thing remains crucial, i.e. involving couples altogether, taking the household as a unit of intervention, involving as many women as possible in value chain actors in gender friendly commodities e.tc. are only a few of the approaches to be employed along the livestock value chain development. There is no single blue print prescription to be applied to mainstream gender linearly across all agro-ecological zones, socio-cultural norms, for all type of livestock commodity and agricultural systems.

Finally, in the long run, it is very crucial to understand that constraining gender norms, weak institutional linkage, lack of access to productive resources, lesser gender role in decision over input use, accessing market and control over income from sale of livestock, less consideration for incentives for different household members including women and youth remain to be major issues to be considered by development practitioners to bring inclusive value chain development intervention in the livestock sector.

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