

Opportunities for promoting gender equality in rural Ethiopia through the commercialization of agriculture

Improving Productivity and Market Success of Ethiopian Farmers



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Abbreviations

CIDA	Canadian International Development Agency
DA	Development Agent
FHH	Female-headed Household
FTC	Farmers' Training Centre
GoE	Government of Ethiopia
IPMS	Improving Productivity and Market Successes
masl	metres above sea level
MHH	Male-headed Household
NGO	Non-governmental Organization
OoARD	Office of Agriculture and Rural Development
PLW	Pilot Learning <i>Woreda</i>
RDA	Research and Development Assistant
RDO	Research and Development Officer
Shoats	Sheep and Goats
SNNPR	Southern Nations, Nationalities and People's Region
TVET	Technical and Vocational Education and Training
WAO	Women Affairs Office

Executive summary

Rural women in Ethiopia represent a tremendous productive resource in the agricultural sector. They are major contributors to the agricultural workforce, either as family members or in their own right as women heading households. However, despite recent policy initiatives to strengthen the position of women in the agricultural sector, a mixture of economic constraints, cultural norms and practices continue to limit their contribution to household food security and, to a lesser extent, inhibits the commercialization of the sector.

Gender roles and relationships influence the division of work, the use of resources, and the sharing of the benefits of production between women and men. In particular, the introduction of new technologies and practices, underpinned by improved service provision, often disregards the gendered-consequences of market-oriented growth and many benefits bypass women. Not only do these circumstances have implications for issues of equality but also may be detrimental to the long-term sustainability of development initiatives.

Despite the crucial role of the agricultural sector in the Ethiopian economy, studies on gender aspects of agricultural commercialization are relatively scarce. The main purpose of this paper is to contribute to the knowledge base about implications of gender roles and responsibilities for the development of the agricultural sector. This paper discusses gender issues in the context of the Improving Productivity and Market Success (IPMS) of Ethiopian Farmers' Project being implemented by the International Livestock Research Institute (ILRI) and the Ethiopian Ministry of Agriculture and Rural Development. The findings are based on qualitative studies undertaken by the IPMS gender research team and Research and Development Officers in 10 pilot learning *woredas* (PLWs) located in 4 regions of the country. The study had three objectives: to increase the understanding of the different roles of women and men in agricultural activities, marketing and decision-making, and their share in the benefits; to identify potential barriers for women's and men's participation in market-led development initiatives and technology adoption; and to identify what actions may overcome some of these barriers.

Gender characteristics of rural populations

Women are not only the major source of labour in the agricultural sector, they are also responsible for the vital tasks of caring for children, the sick and the elderly as part of their household responsibilities. Despite their immense contribution to society, women's productive, domestic and community-related activities seem to be undervalued, are often misunderstood and are rendered invisible from official discourse and national statistics.

Households headed by women are common in rural Ethiopia. During the fieldwork, it was found that women headed between 15% to 30% of households in the PLWs. They are very vulnerable and they are typically found among the poorer households in each community, although some are also found in the rich or middle wealth groups. In addition to the constraints facing women in general, in terms of accessing inputs, services and information for example, female-headed households (FHHs) face additional constraints which prevent them from reaping the full benefit from the land they cultivate. They are highly dependent on others, particularly male relatives or share cropping partners for labour, skills and inputs, since they are, by convention, unable to plough, sow, harvest and store on their own. They usually make decisions to adopt new technologies or practices after consulting male relatives.

Gender roles and share of benefits in crop and livestock enterprises

The division of farm tasks between women and men varies according to the enterprise, the farming system, the technology used, and the wealth of the household. Control over the benefits of production also varies between women and men, partly reflecting their labour input, but also reflecting the use of produce in the home or for sale, cultural norms regarding 'women's' and 'men's' enterprises, and the dominance of men as the household head and, consequently, are entitled to the most important resources like land.

Generally, men are the key players in crop and livestock production, and are also the principal beneficiaries in terms of control over the income generated through the sale of produce. In contrast, there are very few enterprises in which women dominate both the workloads and the control of the benefits, although there are several enterprises in which women and men share both the workloads and the benefits. However, it is almost impossible to draw general conclusions about the division of labour and the share of the benefits between women and men because there are significant inter- and intra-regional variations, as well as variations reflecting the wealth of the household.

Although the division of tasks varies between commodities and between locations, it is possible to make some broad generalizations. In crop production, men are typically responsible for the heavier manual tasks, such as land preparation and tillage with oxen; they also play a dominant role in seed selection, reflecting their better access to information and perform skilled jobs, such as broadcasting seed and fertilizer. They are usually responsible for threshing and winnowing cereal crops.

Women are often involved with activities that require dexterity and attention to detail, such as raising seedlings in nurseries, transplanting and weeding. They are also involved

with activities closely associated with their household responsibilities, such as storage, processing and value adding. When timeliness is of the essence, particularly weeding and harvesting, women and men work together with other household members.

With regard to livestock production, men are usually the key players in high value livestock such as cattle, camels, small ruminants and apiculture. They are also responsible for tasks that require public networking and activities outside the home, such as accessing information, breeding, rearing and animal health, particularly in terms of accessing modern health services. They are also involved in heavier manual activities like housing and slaughtering. Women are typically engaged with activities related to the safety and wellbeing of the livestock that are performed around the homestead, such as collecting dung and hygiene. They are also involved with activities closely related to their household activities and are often responsible for storing, processing and adding value to the livestock products. The tasks of feeding and watering livestock are often shared and other household members may also participate.

The nature of market engagement differs significantly between women and men and is also influenced by the wealth of the household. Men from rich and middle wealth households often sell major cash crops in bulk on an intermittent basis and may travel to more distant markets to secure higher prices. They have the advantage of accessing transport to travel further a field (using cart or pack animals) and may be less pressed for time; however, one major downside of this increased mobility and access to cash income is the very real risk of HIV infection through unprotected sexual intercourse with an infected individual. In contrast, poorer farmers and women tend to accept prices at local markets which they can reach on foot. Women and the poor are more likely to sell directly to consumers, whereas men and more wealthy households sell to private traders and cooperatives.

A detailed analysis of gender disaggregated data by site for cereals (teff, wheat, sorghum, maize, rice), pulses (faba bean, haricot bean, field peas, lentils), oil and industrial crops (cotton, sesame and noug), vegetables (peppers, onion, garlic) and trees (coffee, fruits, fodder and eucalyptus) is presented in Annex 3, and the analysis for dairy, livestock fattening, hides and skins, poultry and apiculture is presented in Annex 4.

There is a general imbalance between workloads and share in the benefits of production, and there is the very real risk that process of commercialization may further marginalize women. Women may be deprived of control over income from the limited range commodities that they enjoy at present, unless these risks are understood and measures are introduced alongside efforts to increase production and productivity to ensure that they enjoy the benefits from any improvements.

Technology adoption and preferences

Rates of uptake vary between technologies and locations. Although both women and men benefit from improved technology availability and adoption, men tend to benefit more. Usually the rich and middle wealth households derive the most benefit from the introduction of new technologies. Adoption among poorer households tends to be inhibited by an inability to afford the technology coupled with limited availability of credit or savings, and low levels of awareness. Generally, attention is required to ensure women and the poor are neither left out nor disadvantaged by these developments.

Women's preferences for crop varieties differ from that of men. Women opt to produce types or varieties which are mainly used for domestic consumption, whereas men prefer crop varieties which have high market demand and fetch high prices. With regards to livestock, both men and women prefer local dairy cattle and small ruminants for fattening because of their low feed requirements and high adaptability. Decisions about enterprise mix and technology adoption, including seed selection, are mainly taken by men and in some cases, are negotiated between husbands and wives.

Human capital

The participation of men and women farmers in social and productive networks demonstrates the long-established adaptive and survival strategies created and sustained by the concerted effort and leadership of rural communities. Membership is often determined by gender, age, locality and religion. Men are more likely to belong to productive as well as social associations, whereas women tend to belong to a narrower range of associations reflecting their household and community roles. Involvement in labour sharing, funeral and revolving credit associations is often based on wealth status and the capacity to contribute financially.

The sources of agricultural and non-agricultural information generally depend on the household wealth and on gender differences. Men depend mainly on formal information sources while women mostly exploit informal sources of information. Wealth status and gender differences also influence the kind of knowledge and sources of skill for farmers. Men farmers access formal sources to improve their skills and knowledge, even in areas where women do most of the activities. Men also exploit indigenous sources to advance their knowledge.

The focus of extension services on men is based on the assumption that they will pass the knowledge acquired to their wives and other family members. But this does not happen in reality. Hence, women farmers usually have limited access to improved agricultural

technologies and packages promoted by the extension system. This constrains their access to various inputs and services including knowledge, and limits their participation in market-oriented agricultural activities. This loss in productive potential not only impacts at the household level but also on the national economy.

Opportunities for promoting gender equality and women's empowerment

The opportunities for promoting gender equality and women's empowerment through market-led initiatives may be grouped into five themes, which address the major areas where gender inequalities are most pronounced. Many have been developed, field-tested and implemented by IPMS in several *woredas*, often in partnership with other organizations:

Increasing women's access to and control over assets

Activities to address the fundamental imbalances in women's access to inputs and services include:

- Involving women farmers, both female-headed households and married women, directly in farmer association activities.
- Working with partners to facilitate women's access to extension advice, credit and inputs, especially for crop and livestock enterprises that are mainly in the women's domain.
- Targeting women and female-headed households to participate in technology development, transfer and adoption.
- Selecting women to host demonstrations and field days.
- Initiating efforts with partners to work towards ensuring a fair use of household income through awareness raising and behaviour change communication at the community and household levels (through household planning and community conversations).
- Setting up women's self-help groups for savings and credit.

Increasing women's access to skills and knowledge

Activities to increase women's opportunities to strengthen their skills and knowledge base include:

- Supporting development and extension workers to help all farmers, including those from poorer households and women, to gain access to relevant information sources to make their lives and farming activities easier.

- Adopting different training approaches to increase women's participation (e.g. training husband and wife couples, providing separate training for women, ensuring the timing/venues are convenient for women).
- Developing women's skills in areas that are not traditionally considered to be in the women's domain.
- Supporting community initiatives to create opportunities for women farmers to access formal information sources, at the very least the radio, which is usually carried by men farmers while they stay away from their homes for various purposes.
- Supporting functional adult literacy classes for women and men.
- Developing women's and men's skills in managing and saving money.
- Setting up women's self-help groups for knowledge sharing.

Increasing women's participation in market-oriented agricultural production

Activities to increase women's participation in agricultural production need to address issues of market access such as:

- Supporting the development of crop and livestock enterprises that are in the women's domain, and taking steps to ensure they retain control of the benefits during this process of commercialization.
- Supporting the development of crop and livestock enterprises that are not traditionally in the women's domain.
- Promoting household planning for building trust and encouraging skills among household members, and promoting the fair use of earnings.
- Setting up women's self-help groups for processing and marketing, including sharing market information in order to gain economies of scale and stronger market bargaining power.

Strengthening women's decision-making role

Activities to strengthen women's role in decision-making in the household, farmer groups, local associations include:

- Training women in group formation, leadership skills, confidence building and negotiating skills.
- Designing strategies to provide women with more knowledge and information to enable them to make informed decisions.
- Conducting gender awareness training at the community level to increase general understanding about the importance of including women in rural development opportunities.

Improving wellbeing and easing workloads

Activities to ease women's workloads by facilitating access to labour saving technologies not only improves their wellbeing but also gives them more opportunity to participate in productive activities, if they wish:

- Identifying and promoting labour saving technologies for activities performed by women in relation to marketable commodities, as well as other household tasks.
- Involving women in technology demonstrations and applications in order to understand and assess the impacts of technologies on their workloads.
- Changing the mindsets in rural communities to move towards a more equitable distribution of workloads between women and men.
- When promoting new enterprises, considering the labour requirements of the whole farming system, rather than individual enterprises, their distribution between different household members, their implications for labour peaks and assessing the availability of, and the capacity of households to hire additional labour to cope with labour peaks or other means of labour spreading.

Operational measures for gender mainstreaming

In addition to the activities described above which address gender inequalities through strengthening project design, opportunities also exist to mainstreaming gender considerations into operational procedures:

- Setting specific targets in terms of the proportion of women participants in different activities and relevant decision-making bodies.
- Increasing the ability of field staff to ensure outreach to women: develop the capacity of extension service and development agents to mainstream gender in their activities, encourage female extension staff to participate in training and field visits, incorporate gender issues into training for development agents, use communication channels that are accessible by women, and ensure training is women-friendly.
- Working with partners with experience of and willingness to work with women: strengthen the gender capacity of government (at all levels), service providers and implementing partners to mainstream gender into their activities; discuss the successes and challenges of gender mainstreaming at IPMS *woreda* workshops and integrate gender considerations into *woreda* action plans; encourage the recruitment of women field workers in order to improve outreach at the field level; work with associations and cooperatives to increase women's participation as members and leaders; and support institutional transformation at the *woreda* level to provide planning, facilitation and monitoring extension services in a gender sensitive manner and to strengthen linkages with WAO.
- Increasing the visibility of women: form linkages with institutions working to address gender imbalances for sensitization on women rights and legislation to

protect women's rights; engage in policy dialogue about gender inequalities and promote legislation to address gender imbalances in the rural sector; enable women to demonstrate their capacity to work in traditional male-dominated activities and enterprises; select women as model farmers; work with women experts, subject matter specialists, leaders and innovators in communities; and provide entrepreneurship awards to women and men farmers, and women and men development agents.

- Monitoring and evaluating development impacts from a gender perspective: identify sex-disaggregated performance and impact indicators to monitor change with respect to gender equality during the life of the project: collect and report on sex-disaggregated information and analyse to understand gender perspective; and explore social, cultural and economic variables that contribute to gender imbalances in market-led agricultural development.

Successes and challenges with IPMS experience to date

The practical experiences of implementing a range of activities for promoting gender equality through the IPMS project have benefited a number of women in commodity development initiatives and generated a number of useful lessons.

Key success factors create an enabling environment and facilitate the use of good practices at the *woreda* level. They include the enabling legislative environment, stakeholders' understanding and commitment, mindset change among the farming community, effective working partnerships in the *woreda* with complementary players to address gender issues, and the availability of complementary services, such as credit, functional adult literacy classes and community conversations.

However, a number of challenges remain to achieving successful gender mainstreaming. These include limited impact orientation and weak implementation linkages; limited vision of women's potential exacerbated by cultural barriers, religious influences and a male-dominated society; limited numbers of women and women in leadership positions at community level; limited access by women to formal information and knowledge, and their lack of resources; the low visibility of married women; the lack of attention to developing women's skills in business, entrepreneurship, leadership and management; technology and research bias towards men's enterprises and technologies; and weak coordination between stakeholders and partners.

Final thought

This paper has demonstrated that site-specific commodity-based gender analysis is essential for understanding the different roles of women and men in the production of specific commodities, marketing and decision-making, and their share in the benefits;

identifying potential barriers for women's and men's participation in market-led development initiatives and technology adoption; and identifying what actions may be required by the project in order to overcome some of these barriers which limit women's participation on those particular commodities development initiatives. The experience of the IPMS project in various *woredas* illustrate how this type of analysis helps to explore challenges and to identify opportunities for promoting gender equality and women's empowerment through increasing women's access to skills, knowledge, assets and increasing women's participation in market-oriented agricultural production and their control over the benefits. The practical experiences to date have generated useful lessons and the unresolved challenges to successful gender mainstreaming will be addressed during the remaining years of the IPMS project.

1 Introduction

1.1 Context

Rural women in Ethiopia represent a tremendous productive resource in the agricultural sector. They are major contributors to the agricultural workforce, either as family members or in their own right as women heading households. There have been recent policy initiatives to strengthen the position of women in the agricultural sector. In 2005, the Plan for Accelerated and Sustained Development to End Poverty, 2005/06 to 2009/10 (PASDEP) was launched to safeguard rights such as access to land, credit, and other productive resources, and to protect women from other deprivations, such as longer working days, violence and discrimination, and, in the same year, the Federal Rural Land Administration Proclamation took strides to secure women's landholding rights.

However, despite these recent initiatives, a mixture of economic constraints, cultural norms and practices continue to limit women's contribution to household food security and, to a lesser extent, inhibit the commercialization of the sector. Gender roles and relationships influence the division of work, the use of resources, and the sharing of the benefits of production between women and men. In particular, the introduction of new technologies and practices, underpinned by improved service provision, often disregards the gendered-consequences of market-oriented growth and many benefits bypass women.

Not only do these circumstances have implications for issues of equality but also may be detrimental to the long term sustainability of development initiatives. PASDEP also recognizes this opportunity and envisages 'unleashing the potential of Ethiopia's women' as one of the eight strategic elements to be targeted during its implementation, setting targets to involve directly 30% of women farmers in male-headed households and 100% of women in female-headed households in rural development activities by 2010.

1.2 Rationale for mainstreaming gender into IPMS project

This paper discusses gender issues in the context of the Improving Productivity and Market Success (IPMS) of Ethiopian Farmers' Project being implemented by the International Livestock Research Institute and the Ministry of Agriculture and Rural Development. IPMS, a five-year project funded by the Canadian International Development Agency (CIDA), works at the federal, regional and *woreda* (administrative district) levels on institutional strengthening, capacity building and knowledge management. The project conducts action research at the *woreda* (administrative district) level through 10 pilot learning *woredas* (PLWs) located in 4 regions of the country (Tigray,

Amhara, Oromia and Southern Nations, Nationalities and People’s Region (SNNPR)) (Table 1). PLW activities focus on promoting priority marketable commodities (crops and livestock) in support of a market-led integrated agricultural strategy through: promoting participation by input suppliers, rural finance and farmer organizations in commodity value chains and stimulating innovation in the chains; improving service delivery systems; and strengthening market linkages.

Table 1. *Characteristics of IPMS woredas*

Region	Woreda	Location	Priority farming/livelihood systems identified by IPMS	
			Farming system 1	Farming system 2
Tigray	Alamata	South of Mekele	Teff–sorghum–maize–livestock	Cotton–rice–livestock
	Atsbi-Wemberta	Highlands in northeast of Tigray	Pulse–livestock	Apiculture–livestock
Amhara	Bure	West of Gojam	Cereals–pepper–livestock	Cereals–potato–faba bean–livestock
	Fogera	South of Gondar adjacent to Lake Tana	Rice–livestock	Cereal–livestock
	Metema	West of Gondar bordering Sudan	Cotton–rice–livestock	Sesame–cotton–sorghum–livestock
Oromia	Ada’a Liben	Central highlands to east of Addis Ababa	Teff–dairy	Teff–livestock
	Goma	Trading centre of coffee in the west of Jima	Shaded coffee–livestock	Cereal–livestock
	Miesso	East of Adama	Crop–livestock	Pastoral
SNNPR	Alaba	In Rift Valley to northwest of Awassa	Teff–haricot bean–livestock	Pepper–livestock
	Dale	South of Awassa	Coffee–livestock	Beans–livestock

From the outset, IPMS has recognized that an understanding of the gender context and identifying opportunities for supporting gender equality through market-led agricultural development initiatives will be central to successful project implementation and sustainability. Consequently, the project has developed a gender strategy¹ with the purpose of promoting gender equity in market-led agricultural development opportunities as a step towards achieving gender equality.

One of the early activities to implement the strategy was to conduct a gender analysis of the project’s priority commodities, technologies and services at the *woreda* level. The study had three objectives:

1. The strategy is available at IPMS Ethiopia website (<http://www.ipms-ethiopia.org/content/files/Documents/pip/Annex%20%20Gender%20Analysis%20and%20strategy.doc>).

- to increase the understanding of the different roles of women and men in agricultural activities, marketing and decision-making, and their share in the benefits;
- to identify potential barriers for women's and men's participation in market-led development initiatives and technology adoption; and
- to identify what actions may be required by the project in order to overcome some of these barriers.

The findings presented in this paper are based on qualitative studies undertaken by IPMS Research and Development Officers (RDOs) and the gender team of the project in the 10 PLWs (see Figure 1).

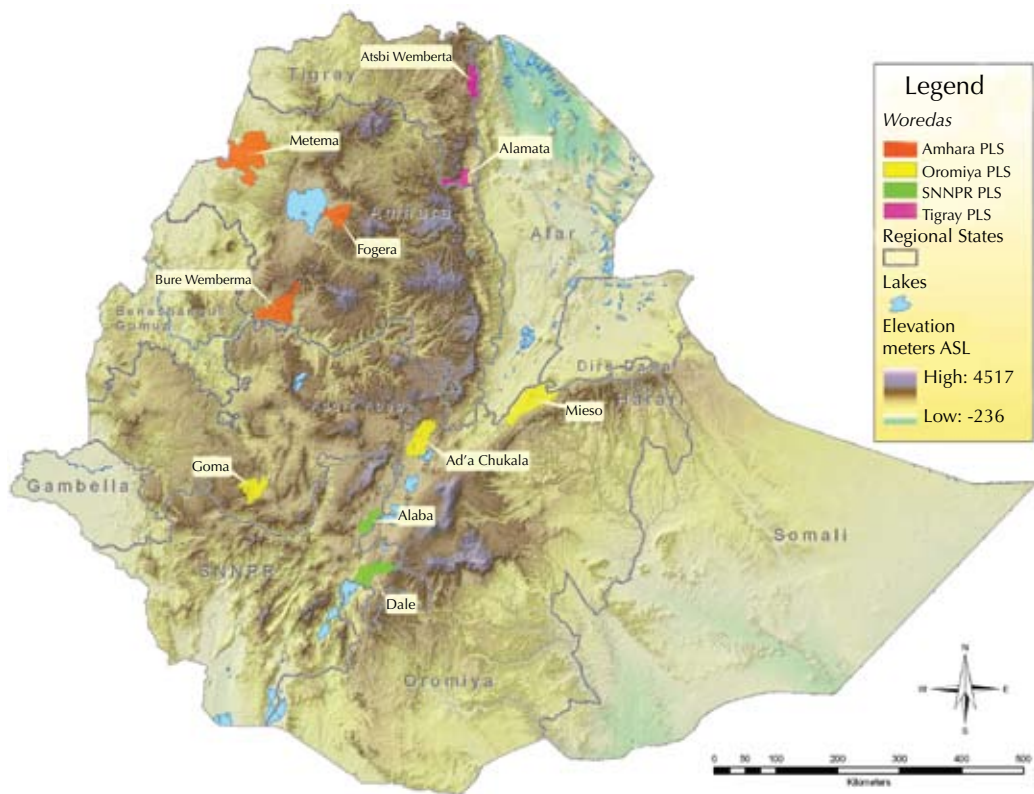


Figure 1. IPMS pilot learning woredas.

The fieldwork was conducted between 2005 and 2007 with groups of women and men farmers in four communities in each PLW. Groups typically comprised between 10 to 26 people, of whom one-third to a half were women. Information was gathered using a range of participatory methods, including a gender analysis of division of labour in production and marketing, access and control of resources and benefits,

decision-making, social capital and technology pathways; and wealth ranking in rural communities.² Attempts have been made to strengthen the validity of this qualitative data by conducting the survey in two to four communities in each *woreda*, with a total of 34 communities in all (the full list of communities participating in the study is presented in Annex 1).

The findings from the study have provided the basis for conducting a national level workshop on integrating gender into the IPMS project, organizing stakeholder workshops at the *woreda* level to develop gender-sensitive PLW action plans, undertaking gender-focused research, and identifying gender-sensitive indicators for project monitoring.

1.3 Structure of working paper

Section 2 presents some of the key gender characteristics of rural populations. The gender differences in division of labour and sharing in the benefits of production and marketing are examined for a range of crop and livestock enterprises in section 3. Section 4 focuses on gender differences and preferences in the use of inputs and uptake of technologies, and section 5 reports on gender differentiated access to and use of productive and social networks, information sources and training. The report concludes with a discussion of the opportunities for addressing gender inequalities and empowering women through market-led agricultural development initiatives.

2. For more details about the survey methodology see Bishop-Sambrook C and Puskur R (2007) Toolkit for gender analysis of crop and livestock production, technologies and service provision, prepared for IPMS of Ethiopian Farmers Project, ILRI, Ethiopia, (http://www.ipms-ethiopia.org/content/files/Documents/publications/Gender/IPMS%20gender%20toolkit_English%20Nov%202007.doc/). Available in English and Amharic.

2 Gender characteristics of rural populations

This section reports on some of the main gender characteristics of rural populations in terms of workloads, rural livelihoods and female-headed households (FHHs).

2.1 Workloads of rural women and men

In most rural communities in Ethiopia, women work from dawn to dusk and, in contrast with men, have little time for leisure or socializing. Women are not only the major source of labour in the agricultural sector, they are also responsible for the vital tasks of caring for children, the sick and the elderly as part of their household responsibilities. Despite their immense contribution to society, women's productive, domestic and community-related activities seem to be undervalued, are often misunderstood and are rendered invisible from official discourse and national statistics.

The overall length of the working day for women does not vary much between the wet and dry seasons. They work for between 10–12 hours per day, half of which is spent on household tasks such as fetching water and firewood, preparing and cooking food, and caring for children. In rainfed farming systems, men's workload is lightest during the dry season because they participate to a very limited extent, usually, in household tasks. In contrast, members of households with access to both rainfed and irrigated lands are busy throughout the year. The busiest time for men with access to irrigated land is usually towards the end of the rainfed season, when they are harvesting, threshing and winnowing their rainfed crops and are simultaneously starting to prepare the land for cultivating irrigated crops.

2.2 Rural livelihoods

In addition to working in the home and on the farm, rural women engage in a diverse range of off-farm livelihood activities. These partly reflect the local farming systems and are also influenced by resource endowments and wealth (Table 2). Women from rich and middle wealth households often trade in agricultural products, whereas poorer women work as casual labourers on farms and in the homes of richer households; they also harvest natural resources for resale (fuelwood, sorghum stalks and grass) or engage in low input activities such as cotton spinning or making *injera* for sale.

Men also undertake a wide range of off-farm activities, the nature of which is closely related to wealth (Table 3). Rich men are often involved with activities requiring capital such as trading in agricultural products, investing in processing equipment or property, or money lending. Poor men typically engage in casual labouring, harvesting and selling natural resources, or migrating temporarily for work.

Table 2. Women's off-farm livelihood activities

PLW		Household wealth		
		Rich	Middle wealth	Poor
Tigray	Atsbi-Wemberta	Processing and selling roasted barley, flour	Processing and selling roasted barley, flour	Processing and selling roasted barley, flour
		Marketing vegetables	Marketing vegetables	Marketing vegetables
		Marketing vegetables		
Amhara	Bure	None	None	Fuelwood and charcoal selling Petty trading Casual labouring Brewing and selling local alcohol
	Fogera	Storing and reselling seed	Trading in rice	Selling fuelwood Cotton spinning Casual labouring
	Metema	None	Running small hotels Selling local beer	Cotton spinning Domestic help in richer households
Oromia	Ada'a Liben	Petty trading	None	Running local drinking houses Selling <i>injera</i> Selling dung as fuel
	Goma	None	Petty trading	Casual labouring Domestic help
	Miesso	Selling milk, butter, eggs	Selling fuelwood, sorghum stalks, grass Trading	Selling fuelwood, sorghum stalks, grass Selling <i>injera</i>
SNNPR	Alaba	Trading Making handicrafts	Trading Making handicrafts	Making handicrafts
	Dale	Trading in dairy products, grains, salt, coffee	Trading in dairy products, grains, salt, coffee	Casual labouring

NB: Data not available for Alamata *woreda*.

Source: IPMS gender survey.

2.3 Female-headed households

Households headed by women are common in rural Ethiopia. The proportion of FHHs and their classification by wealth, based on community estimates during the fieldwork, is presented in Table 4. On average, women head between 15% to 30% of households

in the PLWs. FHHs are very vulnerable and they are typically found among the poorer households in each community. Nevertheless, some are also found in the rich or middle wealth groups. This is illustrated in Figure 2 that presents the distribution of households by wealth and sex of household head, averaged across nine PLWs.

Table 3. Men's off-farm livelihood activities

Woreda		Household wealth		
		Rich	Middle wealth	Poor
Tigray	Atsbi-Wemberta	Salt trading	Salt trading	Salt trading
		Migrating for work	Migrating for work	Migrating for work
Amhara	Bure	None	None	Fuelwood and charcoal selling Grain trading Casual labouring
	Fogera	Lending money Storing and reselling seed	Trading	Casual labouring Livestock herding Seasonal employment Migrating for work
	Metema	Sesame oil processing Grain milling Trading in cotton and sesame Renting out houses	Loading and unloading trucks Weaving shema (a traditional cloth woven from locally spun cotton) Transporting construction materials with donkey carts	Loading and unloading trucks Selling firewood and animal feed (grass)
Oromia	Ada'a Liben	Cattle trading	Cattle trading	Casual labouring Charcoal making Petty trading
	Goma	Producing honey Trading	Producing honey Trading	Casual labouring Producing honey
	Miesso	Grain trading Flour mills Cattle trading Owning and running kiosks	Carpentry Cattle trading Casual labouring	Casual labouring
SNNPR	Alaba	Trading	Trading Casual labouring	Casual labouring
	Dale	Lending money	Trading in dairy products, grains, salt, coffee	Casual labouring Migrating for work

NB: Data not available for Alamata woreda.

Source: IPMS gender survey.

Table 4. Incidence of female-headed households and their wealth distribution by PLWs

Region	Woreda	Distribution of the total community among wealth groups			FHH as percentage of total population (%)	Distribution of FHHs among wealth groups in community		
		Rich HH (%)	Middle HH (%)	Poor HH (%)		Rich HH (%)	Middle HH (%)	Poor HH (%)
Tigray	Alamata	3	27	70	35	0	25	75
Amhara	Bure	20	35	45	20–30	15	28	57
	Fogera	16	53	31	16–36	5	19	76
	Metema	13	44	43	16	8	18	74
Oromia	Ada'a Liben	17	37	46	5–34	11	39	50
	Goma	20	43	37	20	13	30	57
	Miesso	15	33	52	18–30	0	2	98
SNNPR	Alaba	12	13	75	No data	9	15	76
	Dale	3	35	62	7–26	10	56	34

NB: Data not available for Atsbi-Wemberta woreda.

Source: IPMS gender survey; community estimates during fieldwork.

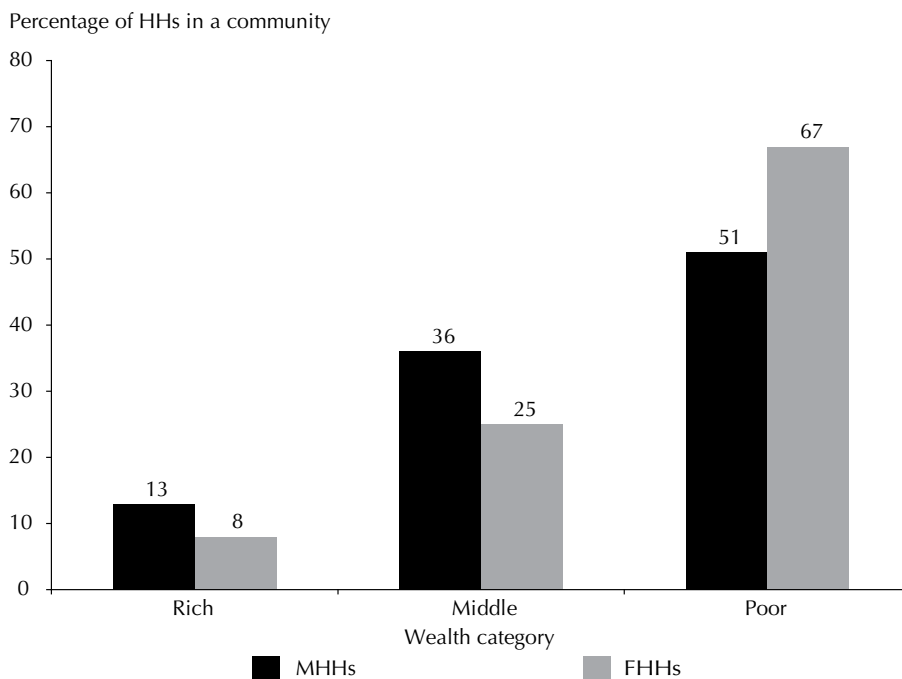


Figure 2. Distribution of male and female-headed households by wealth category.

It is important to understand the specific challenges facing FHHs because they form part of the priority target group for market-oriented development activities. In addition to the constraints facing women in general, in terms of accessing inputs, services and information for example, FHHs face additional constraints which prevent them from

reaping the full benefit from the land they cultivate. FHHs are often neglected by development initiatives and are in a weak position economically (for example, if they lose their land following the death of their spouse). They tend to be unable to access agricultural inputs, training and information from the Office of Agriculture and Rural Development (OoARD) and credit, when their access was formerly through their husbands. They are highly dependent on others, particularly male relatives or share cropping partners for labour, skills and inputs, since they are, by convention, unable to plough, sow, harvest and store on their own. Under share cropping arrangements, they tend to end up with less than half of the produce. They usually make decisions to adopt new technologies or practices after consulting male relatives.

However, with the appropriate support, leading FHHs can break the mould, demonstrating their competencies in testing new ways of doing agriculture, supporting and encouraging similar FHHs to do likewise, and challenging the existing extension service delivery mechanisms positively to serve their needs and development purposes (Box 1).

Box 1: Female-headed households breaking the mould

In Fogera, a woman learnt indigenous beekeeping skills from her father as a child and has continued to adapt them through the challenges of time and new technical innovations. At present she uses both the modern and traditional skills of apiculture side by side. She accessed credit from Amhara Credit and Saving Institution (ACSI), which she used as seed capital to engage in farm and non-farm income generating activities, including trading. This in turn has created the opportunity for her to learn financial management and encouraged her to access modern financial institutions including banks.

In Metema, a woman farmer helps FHHs (who are unable to access land after the death of their husbands) and poor households to access plots, agricultural inputs and labour and thereby enables them to develop a productive socio-economic life.

2.4 Married women

It is also important to be clear about the distinction between women in male-headed households and women heading their own households. While the latter may be poorer, they may enjoy better access to resources than married women. However, married women usually are food secure and may benefit indirectly from development initiatives

that reach men. It is often assumed there is a trickle across of ideas, skills, knowledge and at least some share of the benefits arising from productive activities from husbands to wives.

2.5 Implications of gendered rural livelihoods

Development initiatives should be designed with a gender perspective to ensure they are relevant to their context. For example, women generally are likely to be more responsive to activities that: can take place on a small area of land; can be undertaken close to the home (especially if they are caring for other household members, such as children, the elderly or the sick); do not require many resources, including labour; and do not expose them to too much risk if the venture fails.

3 Gender roles and share of benefits in crop and livestock enterprises

This section explores the division of labour between women and men and their relative share in the benefits of crop and livestock production in male-headed households. The full list of enterprise data collected during the study by PLW is presented in Annex 2.

3.1 Overview of gender workloads and share of benefits

The division of farm tasks between women and men varies according to the enterprise, the farming system, the technology used, and the wealth of the household. Control over the benefits of production also varies between women and men, partly reflecting their labour input, but also reflecting the use of produce in the home or for sale, cultural norms regarding 'women's' and 'men's' enterprises, and the dominance of men as the household head and, consequently, are entitled to the most important resources like land.

Generally men are the key players in crop and livestock production, and are also the principal beneficiaries in terms of control over the income generated through the sale of produce (this is represented by the top left hand cell in Table 5). Men also control the income from several enterprises in which the workload is shared, such as teff and sorghum in Alamata, or cotton and sesame in Metema.

There are several enterprises in which women and men share both the workloads and the benefits (bottom right hand cell in Table 5). In contrast, there are very few enterprises in which women dominate both the workloads and the control of the benefits; the exceptions are pepper in Fogera and poultry in several sites. However, women control the income arising from joint endeavours, such as fruit trees in Alamata, and milk and related products in Atsbi-Wemberta, Fogera, Ada'a Liben, Dale and Alaba.

However, it is almost impossible to draw general conclusions about the division of labour and the share of the benefits between women and men. There are significant inter- and intra-regional variations. For example, pepper is exclusively a women's crop in Fogera, yet men dominate production in Alaba. Similarly, while women dominate poultry activities in Atsbi-Wemberta, the activity and benefits are shared in Alaba and Bure. In Goma, men dominate the benefit of fruit production in one *kebele* while women dominate it in the others.

Table 5. Gender analysis of workloads and benefits of priority crop and livestock enterprises

Control of benefits	Workloads		
	Men dominate	Women dominate	Share
Men dominate	Teff (Alaba)	–	Teff, sorghum (Alamata)
	Sorghum, maize (Miesso—rich HHs)		Cotton, sesame (Metema)
	Noug (Fogera)		Teff (Ada’a Liben)
	Pepper (Alaba)		Wheat (Ada’a Liben, Bure—rich HHs)
	Haricot beans (Alaba, Dale)		Faba beans (Ada’a Liben, Bure—rich HHs)
	Irrigated vegetables (Atsbi-Wemberta)		Chick-peas (Ada’a Liben)
	Coffee (Dale, Goma)		Onions, garlic, rice (Fogera)
	Multipurpose/forage trees (Alaba)		Onions (Bure)
	Apiculture (Alaba, Atsbi-Wemberta, Bure, Goma)		Potatoes (Bure—rich HHs)
	Sheep/goats (Miesso, Metema)		Pepper (Bure)
Women dominate	–	Pepper (Fogera)	Fruit trees (Alamata, Genji Elbu in Goma)
		Poultry (Atsbi-Wemberta, Goma, Ada’a Liben, Fogera)	Butter (Gebrekidan, Hayelom, Kelisha Emini in Atsbi-Wemberta, Fogera)
			Butter/sour milk (Dale, Alaba)
			Milk and butter (Ada’a Liben)
			Poultry (Atsbi-Wemberta, Ada’a Liben and Fogera)
Share	Sorghum, maize (Miesso—middle wealth and poor HHs)	–	Faba beans, field peas, lentils (Atsbi-Wemberta)
	Eucalyptus (Fogera)		Faba beans (Bure—middle HHs)
	Sheep/goats (Fogera)		Potatoes (Bure—middle and poor HHs)
			Fruit trees (Dale, Goma, Bure)
			Butter (Gogol Naele in Atsbi-Wemberta)
		Cattle (Kidest Hana, Alem-ber in Fogera)	
		Poultry (Alaba, Bure)	

The shaded areas represent equity of labour input and control over benefits.

Source: IPMS gender survey.

There are also variations reflecting the wealth of the household. In Miesso, for example, men perform all the tasks associated with the production of sorghum and maize, with

limited assistance from their wives. Yet it is only in the rich households where men control the income, whereas in middle wealth households the proceeds are shared and in poor households, women control the income. Generally, the gender division of labour is generally less marked in poorer households and income tends to be shared more equitably.

Hence it is necessary to conduct site and commodity specific studies to fully understand gender roles and relations, and the challenges and opportunities they pose for market-led agricultural development. The following sections examine the gender division of labour for specific crops and livestock, and gender roles in marketing and sharing of the benefits of production.

3.2 Gender division of labour in crop production

A detailed analysis of gender disaggregated data by site for cereals (teff, wheat, sorghum, maize, rice), pulses (faba bean, haricot bean, field peas, lentils), oil and industrial crops (cotton, sesame and noug), vegetables (peppers, onion, garlic) and trees (coffee, fruits, fodder and eucalyptus) is presented in Annex 3.

Although the division of tasks varies between commodities and between locations, it is possible to make some broad generalizations regarding the typical division of labour between women and men in crop production. Men are typically responsible for the heavier manual tasks such as land preparation and tillage with oxen. Men play a dominant role in seed selection, reflecting their better access to information (Box 2). They also perform the skilled jobs of broadcasting seed and fertilizer. However, once a household adopts row planting, any family member can plant. Men are usually responsible for threshing and winnowing cereal crops.

Box 2: Gender inequity in haricot bean production and benefits, Alaba special *woreda*

Haricot beans are one of the lowland pulses produced for home consumption and sale in Alaba special *woreda*. Haricot beans are grown twice a year during both rainy seasons, using small scale production. The average land holding per household is 1.5 ha and the average land allocated for haricot beans ranges from 25% to 50% of the total. During the main rainy season, haricot beans are intercropped with maize.

The introduction, demonstration and up take of technologies associated with haricot beans are dominated by men. They gain knowledge and skills from training organized by NGOs and government, orientation from experts in government and the private sector, visits and informal sources. In contrast, women rely on informal sources alone for acquiring knowledge and skills and consequently have little or no information about new haricot bean varieties and technologies. Therefore, men dominate the decisions about which types of seed to grow and what technology to use.

There are two types of haricot beans grown in the area. The white beans are mostly improved varieties and the red beans are mostly local with a few improved types. Men prefer white (Mexican and Awash) varieties because they fetch better prices and they are only grown for sale (including export). Women prefer the local haricot beans (Red Wolayita) because they are mainly consumed at home, although they can also be exported but the price is low.

Men and women share the workload in haricot bean production. Men are more responsible for land preparation, tillage, seed selection and sowing. Women are also involved in sowing seeds but not in seed selection because they lack the knowledge and skill; they also support the men during land preparation and tillage. Women are more responsible for threshing, winnowing and storing. Both are involved in weeding, harvesting and day-to-day management.

The income benefit of haricot bean production is realized through marketing. The volume of haricot beans sold by men and women varies between households. Women may sell up to 20 kg per season, often in small amounts when cash is needed at home, while men sell between 100–600 kg and control the income. Women have control over the beans left at home for consumption. The inequity is that while the workload is shared between men and women at many stages of haricot bean production, the right to access the benefits is very limited for women.

Therefore, development efforts targeted at increasing the production and productivity of haricot beans should focus on how to benefit both women and men through ensuring equitable access to information and empowering decision-making at the household level.

Source: Abebe Shiferaw, RDO, Alaba PLW.

Women are often involved with activities that require dexterity and attention to detail, such as raising seedlings in nurseries, transplanting and weeding. They are also involved with activities closely associated with their household responsibilities, such as storage, processing and adding value.

When timeliness is of the essence, particularly weeding and harvesting, women and men work together with other household members. Richer households often overcome labour peaks by hiring labour whereas middle wealth households are more likely to participate in reciprocal labour groups and festive working groups, as well as hiring labour and calling on relatives. The poor may also belong to reciprocal labour groups but they often have no alternative to using family labour. Women support these activities by providing refreshments for the groups of labourers.

Inter-regional differences in the division of labour are best illustrated by pepper production. In Fogera, women do most of the activities associated with growing peppers (Box 3), whereas in Alaba most of the operations are performed solely by men while in Bure the activities are shared.

With regard to tree crops (such as coffee or fruit trees), men tend to do most of the heavy manual labour, including land clearance, tillage, nursery, weeding and pruning. Wives assist with manuring, soil conservation, harvesting and management, depending on the region. Women's participation is greater when the trees are planted close to the home.

3.3 Gender roles in livestock production

A detailed analysis of gender disaggregated data by site for dairy, livestock fattening, hides and skins, poultry and apiculture is presented in Annex 4.

The gender division of tasks in livestock production and management also varies between commodities, locations and the wealth of the household. Nevertheless, it is possible to make some broad generalizations regarding the typical division of labour. Generally, men are the key players in high value livestock such as cattle, small

ruminants, apiculture and camels. They are also responsible for tasks that require public networking and activities outside the home, such as accessing information, breeding, rearing and animal health, particularly in terms of accessing modern health services.

Box 3: Women's role in pepper production and marketing, Fogera *woreda*

In Fogera *woreda*, pepper is a cash crop and is grown on areas of up to 0.25 ha. The seedlings are first raised near water sources and, after two months, are transplanted in land close to the home, in the backyard or in a main field nearby.

Most of the main farm operations are undertaken by women, including seed selection, fertilizing, harvesting, processing, storing and day-to-day management. Men assist with nursery and planting; they have sole responsibility only for tillage. Unlike other field crops, pepper production needs special care and is very labour intensive. The crop must be free from weeds and requires hoeing at least two or three times to remove any weeds and to loosen the soil; this work is done by women. The peppers are harvested as they mature; there are at least three rounds of picking to finish the entire harvest. The pepper is dried on a clean and compacted floor at home and stored until marketing.

A household, on average, consumes not more than 40 kg of pepper per year. For a family who harvests 200–250 kg of pepper from 0.25 ha, between 160–210 kg will be available for sale. The role of women in marketing pepper in Fogera may be explained by two main reasons: they are familiar with handling the product because they use the pepper in preparing food at home; and pepper is easy to transport and the market price is favourable. Women take up to 20 kg per market visit. They sell pepper almost throughout the year when they need cash for the household.

Source: Tilahun Gebeye, RDO, Fogera PLW.

They are also involved in heavier manual activities like housing and slaughtering. Women are typically engaged with activities related to the safety and wellbeing of the livestock that are performed around the homestead, such as collecting dung and hygiene. They are also involved with activities closely related to their household activities and are often responsible for storing, processing and adding value to the livestock products. The tasks of feeding and watering livestock are often shared and other household members may also participate (Box 4).

Box 4: Gender division of labour in livestock production and management, Alamata *woreda*

Farmers in Alamata rear livestock such as cattle, sheep, goats and camels mainly for the market. Draught animals also provide power for arable cultivation and for transport. However, it is only the richer households that have specialist draught animals, such as camels and donkeys (see Table below).

Livestock holding by wealth group

Household wealth	Average number per household				
	Cattle	Sheep	Goats	Camels	Donkeys
Rich	15–30	10–20	10–15	2–5	2–3
Middle	9–10	5–8	5–7	–	1
Poor	2–3	2–3	2	–	–

The workload in managing these livestock is shared by men and women. Men are more responsible for breeding, housing, grazing, fodder production, feeding, medication and women for livestock rearing, fodder collection, dung collection, milking and day-to-day management.

Source: Gebreyohannes Berhane, RDO, Alamata PLW.

There are also inter-regional differences in the division of labour. For example, in Miesso (Box 5) women do most of the production activities associated with sheep and goats whereas in other *woredas*, men perform most of these activities.

3.4 Gender roles in marketing and sharing the benefits of production

The nature of market engagement differs significantly between women and men and is also influenced by the wealth of the household. Men from rich and middle wealth households often sell major cash crops in bulk on an intermittent basis and may travel to more distant markets to secure higher prices (Box 6). They have the advantage of accessing transport to travel further a field (using cart or pack animals) and may be less pressed for time; however, one major downside of this increased mobility and access to cash income is the very real risk of HIV infection through unprotected sexual intercourse with an infected individual. In contrast, poorer farmers and women tend to accept prices at local markets which they can reach on foot. Women and the poor are more likely to sell directly to consumers, whereas men and more wealthy households sell to private traders and cooperatives.

Box 5: Women's dominant role in sheep and goat production, Miesso *woreda*

In Miesso *woreda*, sheep and goats (shoats) are marketed on a small scale. They are mainly regarded as an asset that can be used as a quick source of cash in times of need. Middle wealth households keep 10 shoats on average, which are fed on natural pasture through browsing and/or fodder collection.

In contrast with other *woredas*, most of the activities in Miesso are undertaken by women, including rearing, housing, hygiene, fodder collection, dung collection, milking, processing and day-to-day management. Men assist with feeding and have a sole responsibility only for supervising browsing, fodder production, medication and slaughtering. Women also, uncharacteristically, play a major role in making decisions about the choice of breed, especially in middle wealth and poor households. This is because women pay attention to the pedigree of the shoats and have better knowledge about the type of breed best suited for various purposes.

Despite their work and knowledge, women are not rewarded for their efforts. Men control the income from the sale of live animals; on average rich, middle and poor households sell up to 12, 6, and 2 shoats per annum respectively (at Ethiopian birr (ETB)³ 200–500 per shoat).

Source: Zewdu Ayele, RDO, Miesso PLW.

In many instances, sales are triggered by the need for cash—especially in middle wealth and poor households to repay debts or to pay hired labourers or school fees—and to cover food deficits in poor households. The poor may have acquired the seed on loan and have to share the crop with the person who supplied them with seed (for example, haricot beans in Dale) or have to sell the crop to their money lenders (coffee in Dale).

Even though women play a considerable role in livestock production and management, they rarely participate in marketing and controlling the benefits from the sales of large livestock and their produce. Women control only processed products such as milk and butter (Box 7), and smaller items, such as poultry and eggs (Box 8), while men control income from the sale of cattle, sheep, goats and honey.

3. On 25 February 2010, USD 1 = ETB 13.3458.

Box 6: Examples of market engagement by men and price responsiveness

Rich farmers travel from Metema to Gondar (about 170 km) once or twice per season, with a truck, to sell their cotton to the ginneries or sesame to exporters. They are sensitive to price changes and store their produce to wait for higher prices. In contrast, middle wealth and poor farmers are concerned about the risk of fire in their cotton stores and often have an urgent need for cash so they sell soon after harvest to private traders locally, transporting their produce by donkey cart.

In Alamata, rich and middle wealth farmers selling teff and sorghum look for better prices if the prices available at the local markets are low, whereas poorer farmers tend to accept the local prices.

Rich and middle wealth farmers in Dale sell haricot beans in bulk, possibly holding some of their produce back while waiting for prices to rise but their ability to do this is tempered by storage problems. Farmers selling haricot beans in Alaba noted their ability to be price responsive is hampered by a lack of price information and technical support.

Source: IPMS gender survey.

Women generally have little control over the income benefits of production. Table 6 shows the relationship between the gender control over the benefits and different levels of market orientation. In many instances, the outcome is location specific. Of 17 commodities produced principally for the market (where more than 80% of the produce is sold; see the extreme right hand column of Table 6), men control the income from 10 commodities, whereas women control the income from only two and they share the benefits of five others. Of the 16 commodities that are produced both for the market and home consumption (middle column, where between 40–80% of the produce sold), men control nine commodities, women control two and they share the benefits from five enterprises. Of the seven that are produced principally for home use (less than 40% sold, left hand column), men control five, women one and they share one.

Box 7: Shared workloads in dairy production and women's benefits, Ada'a Liben *woreda*

The ownership of cows for milk production is related to wealth. Rich households may own 4–5 cows and middle wealth households 1–4 cows, whereas the poor do not own any cow. Men are responsible for breeding, rearing, housing, fodder production and collection, feeding, medication and slaughtering. Women are solely responsible for hygiene, dung collection, processing, storage and day-to-day management. The activities of grazing and rearing are shared. Between June and October, when labour is critical for crop production, rich households use hired labour to look after the animals while middle wealth households use other family members to assist with the livestock.

Generally half of the milk produced is sold. The income from milk and butter sales is controlled by women.

Source: Nigatu Alemayehu, RDO, Ada'a Liben PLW.

Box 8: Dominance of women in poultry production and benefits, Atsbi-Wemberta *woreda*

Poultry in Atsbi-Wemberta are reared using traditional methods for the market on a small scale. Neither improved breeds nor technologies have been introduced in the area.

Women shoulder the workload. They are responsible for all activities except slaughtering; they get support from children and hired labour for housing and cleaning during labour peaks.

Chicken are reared mainly as a quick source of cash in times of household need. Women control the income from sale of eggs and chicken in all wealth groups. The annual sale of eggs varies among different wealth groups; on average 530, 420 and 240 eggs are sold in rich, middle and poor households respectively. Around 30 chicken are sold per household per year regardless of the wealth group.

Source: Gebremedhin Woldewahid, RDO, Atsbi-Wemberta, PLW.

Table 6. Commercialization of production and control of income by sex

Enterprise		Average number of units in typical middle wealth household	Control of income by proportion of produce sold on market		
			Less than 40%	40–80%	More than 80%
Crops					
Cereals	Teff (Ada'a Liben)	1 ha			men
	Teff (Alaba)	0.5 ha	men		
	Teff and sorghum (Alamata)	0.5–1 ha			men
	Maize and sorghum (Miesso)	1–2.4 ha sorghum 0.2–0.6 ha maize inter-cropped with haricot bean	share		
	Wheat (Bure)	0.25–0.75 ha		men	
	Wheat (Ada'a Liben)	1 ha			men
	Rice (Fogera)	0.5–1 ha		men	
Pulses	Haricot beans (Alaba)	0.5 ha	men		
	Haricot beans (Dale)	0.2 ha		men	
	Faba beans, field peas (Atsbi-Wemberta)	Not available		share	
	Faba beans (Bure)	0.13–0.25 ha		men	
	Faba beans (Ada'a Liben)	Not available			men
	Chick-peas (Ada'a Liben)	Not available			men
	Lentils (Atsbi-Wemberta)	Not available			share
Oilseeds and industrial crops	Cotton and sesame (Metema)	2–3 ha cotton 1–3 ha sesame			men
	Noug (Fogera)	0.25 ha			men
Vegetables	Pepper (Alaba)	0.25 ha			men
	Pepper (Fogera)	0.25 ha			women
	Pepper (Bure)	0.5 ha			men
	Irrigated vegetables (Atsbi-Wemberta)	Not available			men
	Onion (Fogera)	0.5 ha			men
	Garlic (Fogera)	Not available		men	
	Potato (Bure)	0.25 ha	men		
Trees	Coffee (Dale)	0.2 ha			men
	Coffee (Goma)	0.5-0.75 ha			men
	Multi-purpose/eucalyptus (Alaba, Fogera)	100 eucalyptus trees	men (Alaba)	men (Fogera)	
	Fruit trees (avocado) (Dale)	1-2 trees			share
	Fruit trees (papaya, mango) (Alamata)	A few trees			women
	Avocado/mango (Bure)	2 trees of each			share
	Banana (Bure)	Up to 10 suckers			share
	Avocado/mango (Goma)	Up to 6 trees of each		share	

Enterprise	Average number of units in typical middle wealth household	Control of income by proportion of produce sold on market		
		Less than 40%	40–80%	More than 80%
Livestock				
Dairy cows	Butter (Atsbi-Wemberta)	Not available		women
	Butter (Fogera, Dale, Alaba)	2–4 cows	women	
	Dairy (Ada'a Liben)	1–4 cows		share
Cattle	Cattle (Alamata, Metema, Miesso)	Up to 11 cattle		men
	Cattle (Fogera, Ada'a Liben)	2–4 cattle	men	
Sheep and goats	Sheep and goats (Fogera)	6 goats, 10 sheep		share
	Sheep and goats (Miesso)	5–10 goats, 1–2 sheep		men
	Sheep and goats (Metema)	10–20 goats, 1–3 sheep		men
	Sheep and goats (Bure, Goma)	Up to 10 sheep		men
	Sheep and goats (Alamata)	3 sheep, 6 goats		men
	Sheep and goats (Atsbi-Wemberta)	Not available		men
Skin and hides	(Atsbi-Wemberta)	Not available		men
Poultry	Poultry (Alaba)	Up to 9 birds		share
	Poultry (Atsbi-Wemberta, Fogera, Ada'a Liben)	Not available		women
	Poultry (Bure)	10–20 chicken		share
	Poultry (Goma)	5–9 chicken		women
Apiculture	Apiculture (Alaba, Atsbi-Wemberta, Ada'a)	Not available		men
	Apiculture (Bure)	20–30 traditional beehives		men
	Apiculture (Goma)	10 improved beehives and 5 traditional beehives		men

The shaded cells indicate enterprises in which women either have sole control or share the benefits with men.

Source: IPMS gender survey.

As a result of the dominance of men in marketing, women sometimes resort to selling small quantities of the produce in secret, which can result in market inefficiencies (Box 9).

For some commodities, control over the income differs with the level of production. For example, when the volume of fruit production per household is small, women

control the income. When production is more substantial, the income tends to be shared whereas when production is commercialized, men tend to assume control of the income (Box 10). This can also happen to commodities which are traditionally regarded to be in the women's domain, such as poultry. For example, in Ada'a Liben, Atsbi-Wemberta, Fogera and Goma, women control the benefits from chicken reared for both home use and sale, while in Bure chicken are reared mainly for market and the income is shared.

Box 9: Gender inequalities in marketing and its impact on market-oriented coffee development, Goma *woreda*

Almost all community members in Goma *woreda* derive their livelihood from coffee. Many of the operations associated with growing coffee, such as maintenance of the plantation, harvesting and drying, are labour intensive. Wives are an important part of the labour force but the decision when to sell and gain cash income from coffee is fully controlled by their husbands.

Men do not like to sell during the early part of the harvest season because coffee prices are very low. However, this time of the year is a very critical stress period for middle wealth and poorer households, in terms both of cash and food items for those who do not have enough land to cultivate food crops. As women are responsible for meeting the basic needs in their household, they are usually obliged to sell small amounts of coffee to merchants or multipurpose shops in their locality when their husbands are away, in order to raise some cash. In other cases, because men control all the cash income from the bulk sales of coffee, some wives sell in secret to acquire cash for their social obligations. However, the price women sell at is usually lower than the market price because the sale is secret, and they are not able to bargain for a better price.

In Goma, men sell coffee once in a year in bulk, with the volume varying considerably between households: rich households may sell up to ten times the volume of poor households (see Table below). Women sell a small amount every week, depending on the amount of produce they have in household and the wealth of the households. The total amount sold by a woman in a poor household is estimated to be about 50 kg (3–4 kg per week or 9–12 kg per month) throughout the harvest season; whereas the amount sold annually by a husband typically ranges from 100 to 300 kg. Men control around 90% of the income generated from coffee sales, particularly in the richer households.

Annual volume of sales of coffee by gender and wealth of household, Goma

	Households		
	Rich	Middle wealth	Poor
Volume sold by women	200 kg	100 kg	50 kg
Volume sold by men	2000–3000 kg	700–2000 kg	100–300 kg
Male control of income	90–93%	86–95%	50–83%

Usually the rich, followed by middle wealth households, have the opportunity to sell their coffee to cooperatives which start buying late in the season but at good prices. The poor usually sell their produce to traders who start purchasing immediately after harvest but at low prices; they do not have the capacity to wait until the market prices rise. Women also sell to traders and consumers because they sell in small quantities.

Many husbands are vaguely aware of the sales by their wives, because of changes in the quality or quantity of household items, but they often choose not to find out the amount sold because it is relatively small. Some, however, are violent with their wives. Children may also sell coffee secretly, when their parents are not at home, and use the cash to buy personal items.

The secret sales of coffee by wives not only represent a loss in quality, if they harvest the beans secretly in a rush, but also a loss in household income if their coffee is sold at a low price. Overall the process will continue affecting both national and household economy unless gender equity is addressed, both in decision-making and sharing benefits from coffee production.

Source: Yishak Baredo, RDO, Goma PLW.

3.5 Implications for market-led development

As a result of market-oriented development, it is expected that workloads will increase for both men and women but in different magnitudes depending on what tasks they are responsible for, and whether there will be an intensification of labour in that particular task. Generally there is an imbalance between workloads and share in the benefits of production, and there is the very real risk that process of commercialization may further marginalize women. Women may be deprived of control over income from the limited range of commodities that they enjoy at present, unless these risks are understood and measures are introduced alongside efforts to increase production and productivity to ensure that they enjoy the benefits from any improvements.

Hence, any initiatives which aim to improve or adapt field activities need to conduct site- and commodity-specific studies to know who is the principal audience, who will bear the additional burden of work, who will be principal beneficiaries and how the marginalized groups can benefit?

Box 10: Marginalizing women through the commercialization of avocado production, Goma

Avocado is grown throughout Goma *woreda*, traditionally on a small scale but in some *kebeles*, now on a commercial scale. In areas where avocado production is small, ranging from 10–60 kg per household annually, such as Limu Sapa and Bulbullo, women sell the fruit and control the benefits (see Table below). The same used to be true in Genji Elbu but as the crop has commercialized (with household production ranging from 170–800 kg per year); men have taken over selling the fruit and controlling the benefits, especially in the richer households.

Avocado sales by household wealth and sex

Kebeles	Avocado sales by household wealth (kg)								
	Rich HH			Middle wealth HH			Poor HH		
	W	M	Total	W	M	Total	M	W	Total
Bullbullo	10	–	10	12	–	12	15	–	15
Limu Sapa	–	–	–	60	–	60	–	–	–
Genji Elbu	–	800	800	50	600	650	20	150	170

Originally in Genji Elbu, women took the fruit to market but, as production increased, traders started going directly to the farms and purchasing the fruit while it was still on the trees. Men began to take over responsibility for marketing by looking for traders, negotiating with them and organizing the neighbours together in order to attract traders; finally they took over controlling the income.

Source: Yishak Baredo, RDO, Goma PLW.

4 Technology adoption and preferences

Crop and livestock production depend critically on a supply of inputs including material inputs like seeds, irrigation and fertilizers but also knowledge, both old and new, transferred through formal and informal networks. This section looks at the pathways through which agricultural technologies are passed on to farmers and the factors influencing uptake, while section 5 reviews networks and knowledge sources.

4.1 Technology pathways and rates of uptake

New technologies are typically transferred through the extension system of the OoARD at the *woreda* level and, in some cases, by NGOs. Training is conducted to familiarize the farmers with new knowledge, to enable them to apply the new knowledge. In Ada'a Liben, the co-operative union has also played a role, especially regarding fertilizer and improved seed (Table 7).

Table 7. *Technology uptake and pathways*

Region	<i>Woreda</i>	Most successful technologies (adopted by 35–50% of community)	Less widely adopted technologies (adopted by less than 10% of community)	Technology pathways
Tigray	Atsbi-Wemberta	Rainwater harvesting Fruits Vegetables	Improved poultry Improved dairy Modern beehives	OoARD NGOs
	Alamata	–	Chemicals Water harvesting Improved seeds Improved breeds	OoARD
Amhara	Bure	Methods of fertilizer application Compost preparation and use Improved varieties of maize, wheat and pepper	Seedling production Modern beehives Cattle fattening	OoARD

Region	Woreda	Most successful technologies (adopted by 35–50% of community)	Less widely adopted technologies (adopted by less than 10% of community)	Technology pathways
Amhara	Fogera	Fertilizer Row planting Rice varieties Rice polishers Motor pumps for irrigation Garlic, pepper Hand dug wells Goats Trees Home management	–	OoARD
	Metema	Herbicides Insecticides	Improved seed Fertilizer Composting Poultry Goat rearing	OoARD
Oromia	Ada'a Liben	Wheat Fertilizer	Improved poultry Durum wheat	OoARD Co-operative Union
	Goma	Modern beehives Avocado Improved maize	Hybrid cows Improved chicken	OoARD NGOs
	Mieso	Poultry	Water harvesting ponds Water diversion Household extension package Tied ridger	OoARD SG 2000
SNNPR	Alaba	Fertilizer Improved seeds of maize and haricot bean Improved poultry	Improved pepper varieties Modern beehives	OoARD
	Dale	–	White haricot beans	OoARD

Source: IPMS gender survey.

Rates of uptake vary between technologies and locations. The most successful technologies (used by at least half of the community) include fertilizer and hand-dug wells in Fogera, and

agrochemicals in Metema. Technologies adopted by 35–50% of the community include fertilizer and improved seeds in Ada’a Liben and Alaba; and rice polishers, pumps, and goats in Fogera. Among the least successful technologies (used by less than 10% of the community) are improved seeds in Alamata and Dale; improved poultry in Ada’a Liben, Metema and Alaba; goats in Metema; beehives in Alaba; tied ridger in Miesso; and water harvesting in Alamata, Metema and Miesso. Certain technologies like fertilizers, improved wheat and maize seeds have high uptake levels across the different *woredas* because they are part of the crop extension packages promoted by government and the extension services that have adoption targets to meet. It is interesting to note that the same technology is successful at one site but fails at another, such as improved poultry.

Various factors influence the rate of uptake. In the case of successful technologies like fertilizer and seed in Alaba, they were issued on a loan basis together with demonstrations of seed varieties. Improved poultry and beekeeping were accompanied by training but have not been widely adopted. Beehives were provided to selected households on a loan basis and poultry had to be purchased by households. In Alamata, the OoARD tried to promote technologies through experience sharing, credit supply and direct sale of chemicals. In Atsbi-Wemberta, rainwater harvesting was less widely adopted in some communities because of its labour intensive nature. The adoption of fruit and vegetable production in Atsbi-Wemberta was constrained by limited supplies of seeds, water and knowledge, while dairy production was constrained by limited supplies of heifers and fodder. In Fogera, OoARD introduced several technologies through demonstrations, including organizing farmer field days for fertilizers and rice varieties, and providing credit. Garlic was taken up on farmers’ own initiative. Motor pumps were introduced by traders as part of their share cropping business. The major potential barriers to adopting technologies are summarized in Table 8.

Table 8. *Barriers accounting for low uptake of technologies*

Technological factors	Institutional factors	Cultural factors
Incidence of crop and livestock diseases and pests	Lack of credit and savings	Stickiness of traditional cropping systems and cultural practices
Unreliable rainfall and water availability	Limited awareness, experience and skills	
Forage shortage for livestock enterprises	Land shortage	
High labour and capital intensity of new/improved technologies	Untimely provision and low quality of inputs	
	Lack of and insecure markets lack of market information	
	No objective perception of returns/benefits from technologies	
	Need for immediate income	
	Poor risk taking ability	
	Lack of effective extension support	

Source: IPMS gender survey.

Although both women and men benefit from improved technology availability and adoption, men tend to benefit more. Usually the rich and middle wealth households derive the most benefit from the introduction of new technologies. Adoption among poorer households is inhibited by an inability to afford the technology coupled with limited availability of credit or savings, and low levels of awareness. There are exceptions: for example, poor women in Alamata benefited most from the introduction of water harvesting whilst, in Atsbi-Wemberta, women and the poor benefited from improved poultry, fruits and vegetables, dairy and rainwater harvesting. In some instances, the poor benefit indirectly through sharecropping, as in the case of the motor pumps for irrigation in Fogera. Generally, attention is required to ensure women and the poor are neither left out nor disadvantaged by these developments.

4.2 Gender-based preferences for seeds and breeds

Women’s preferences for crop varieties differ from that of men (Table 9). Women opt to produce types/varieties of crops which are mainly used for domestic consumption, whereas men prefer crop varieties which have high market demand and fetch high prices. For example, in Alaba, Dale and Ada’a Liben PLWs where chick-peas and haricot beans are considered to be priority commodities, men prefer to produce improved varieties (Shasho and Arerti for chick-pea) for the market while women prefer the local variety (Dima) which is suitable for household use. Poorer households tend to generally prefer less risky disease resistant and locally available crop varieties.

Table 9. *Preferences of men and women farmers for crop varieties and livestock breeds*

Crop/ livestock	PLWs	Women’s preference	Men’s preference
Sesame	Metema	FHH and poor households: Gojam Azene—low yielding, but less risk of shattering	Hirihir—high yielding, high oil content and early maturity High risk of shattering soon after maturity
Pepper	Fogera	Middle wealth and rich households: local varieties—set continually, better weight, can be processed and sold Poor HH: varieties which fetch higher prices	Data not available
	Alaba	Varieties with good taste and dark colour for home consumption	Marketable variety with high prices Poor households: disease resistant varieties, locally available
	Bure	Mareko fana—high yield, market demand and price	Mareko fana—high yield, market demand and price

Crop/ livestock	PLWs	Women's preference	Men's preference
Wheat	Ada'a Liben	Paven for high yield and good bread making quality Kubsa for <i>injera</i> making Durum for high yield and price	Data not available
	Bure	Improved variety, seed not available	Improved variety, seed not available
Rice	Fogera	X-Jigna varieties for white bread making, and Gumara for local bread making Poor HHs are indifferent about variety	X-Jigna as it has better market value
Teff	Ada'a Liben	Red for home consumption White for market due to high price and yield	Data not available
Haricot beans	Dale	Local red—does not require fertilizers, good for home consumption	Varieties which are pest resistant and marketable Poor households prefer disease resistant local variety
Faba bean	Atsbi-Wemberta	Local varieties for drought and frost resistance, easy seed availability and better taste	Data not available
	Bure	Improved variety, but seed not available	Data not available
Lentil	Atsbi-Wemberta	Improved varieties, if available	Data not available
Banana	Bure	Improved Kenya variety	Improved Kenya variety
Onion	Bure	Hagere—big bulb, high market demand	Hagere—big bulb, high market demand
Potato	Bure	Improved variety—for high yield and taste	Improved variety—for high yield and taste
Coffee	Goma	Data not available	Improved coffee berry disease resistant variety
Trees	Alaba	For fuelwood	For multiple uses (shade, feed, to hang beehives)
Dairy cattle	Dale	Local breeds preferred due to low feed requirement and adaptability Limited awareness about improved breeds	Local breeds preferred due to low feed requirement and adaptability Limited awareness about improved breeds

Crop/ livestock	PLWs	Women's preference	Men's preference
Small ruminants	Metema	Local breeds—better weight and adaptability	Local breeds—better weight and adaptability
	Bure	Local breeds like Danglla and Horrow/wella—only breeds available for fattening, higher weight and adaptable	Local breeds like Danglla and Horrow/wella—only breeds available for fattening, higher weight and adaptable
	Fogera	Use brewery by-products as feed	Data not available
Poultry	Atsbi-Wemberta	Improved for more eggs and meat, but concerned about high disease susceptibility, high management requirements and limited experience	Improved for more eggs and meat, but concerned about high disease susceptibility, high management requirements and limited experience
	Bure	Improved breeds, but concerned about high disease incidence and mortality, low adaptability	Improved breeds, but concerned about high disease incidence and mortality, low adaptability
	Goma	Local for high disease resistance and less feed requirements	Local for high disease resistance and less feed requirements

Source: IPMS gender survey.

With regards to livestock, both men and women prefer local dairy cattle and small ruminants for fattening because of their low feed requirements and high adaptability. This preference for local dairy breeds could also be because of very limited awareness about improved breeds and their availability. In the case of poultry, while farming households in Atsbi-Wemberta and Bure prefer the improved varieties because of their high yielding nature of both meat and eggs, they are cautious about the high incidence of disease and high mortality rates, thereby requiring intensive management. In Goma, local poultry are preferred because they have lower feed requirements and a high resistance to disease.

4.3 Gender-based access to inputs and services

Women and poor households access agricultural inputs mainly through the formal, government sources. There is limited private sector involvement in input supply and service provision, which mainly cater to the needs of the rich and middle wealth households. Generally, the main source of animals for both men and women is OoARD and local market. Veterinary drugs are usually obtained from OoARD or bought from

private vendors. Seeds and fertilizer distribution is mainly controlled by the OoARD and occasionally through cooperatives.

The data demonstrate that men have access to all services like credit, extension and training, whereas women and men from poor households are marginalized in this respect. Rich and middle wealth households access credit from credit and savings associations, while the poor access credit through OoARD. Access to extension and training are discussed in section 5.

4.4 Decision-making

Decisions about enterprise mix and technology adoption, including seed selection, are mainly taken by men and in some cases, are negotiated between husbands and wives. The general trend appears to be one of male-dominated decisions in rich and middle households, and joint decisions in poor households. Only in female-headed households do women control the decisions; yet this still tends to be in consultation with their male relatives. It was noted that even though men appear to be in control of decision-making, they usually consult their wives and women have a strong influence on the outcome.

4.5 Implications for market-led development

While designing development interventions for supporting market-oriented agricultural development, it is important to take account of gender differences in terms of accessing technologies and services. It is also relevant to provide access to breeds and varieties which serve a dual purpose, both for home consumption and for sale in the market. Access to credit is critical to be able to use some of the modern technologies but often acts as a barrier for women and poor and, consequently, they tend to get left out of the technology development process.

5 Human capital

Investing in strengthening the ability and skills of the human capital is of a paramount importance in order to ensure sustainable livelihoods in the agricultural sector. This section examines the gender dimensions of productive and social networks in the rural context, information sources, sources of knowledge and skills, and farmers' training.

5.1 Productive and social networks

Rural communities in Ethiopia live in contexts where self help associations and labour sharing networks play a crucial role in all socio-economic fields. These community-based associations (CBOs) treasure voluntarism, informality, reciprocity and societal communion. The purpose of CBOs can be social, cultural, religious or economic; they can also play more than one role at a time and many have a complementary range of functions. The most common networks are listed below according to their principal function.

Social:

- *'Idir'* (*'Afosha'* in Hararge): They are mainly established to formalize funerals and to help support the families of the deceased. However, communities sometimes also use these associations for labour sharing and development purposes.
- *'Mahiber'*: The Orthodox Christian laity meets monthly on a selected Saint's day and commemorates the day with local drinks and food in a specific place in the church or at the home of a member.
- *'Senbetie'*: Religious gathering where members meet in church weekly or on Sunday right after the usual pray time for eating, drinking and feeding the destitute around the church.

Economic:

- *'Ekub'*: This is a revolving credit association common among different sections of urban and semi-urban localities.
- Farmers' association (often referred to by its former name, peasant association): This association, based in a rural *kebele*, is a semi-autonomous entity that is directly involved in decisions regarding the land, water, natural resources and other productive, social and political issues that affect the lives of all community members. It is the smallest government administrative unit.
- Cooperative: This formal farmers' group or association enables farmers to purchase inputs with cash or credit within their locality; cooperatives also purchase farmers' produce at fair prices.
- Savings and credit association: A formal saving and credit association recognized by government with legal certification; it is entitled to request loans from a bank.

- Others: Irrigation groups to organize small-scale irrigation schemes; members may also share labour and skills as well as water.

Labour groups:

- '*Debo*': A traditional system practised for over 100 years. Thirty women and men form an informal group, coming together when the need arises to assist each other with ploughing, digging, planting, harvesting, erosion control and house construction. In Alabigna language this group is known as the '*Gezima*'.
- '*Wonfel*': A farmer may ask a neighbour or any other person with whom he or she has an understanding, for additional labour for a day to finish a farm operation, most commonly for sowing, weeding, harvesting or threshing. The farmer reciprocates by either assisting with the same kind of operation or a different one to compensate for the labour used.
- '*Jigi*': If a farmer needs additional labour, for example for house construction, weeding or harvesting, people from the surrounding area are asked to assist. In return, the farmer prepares food and drinks, not necessarily having to reciprocate by performing the same kind of operation. This is particularly useful for providing labour assistance to needy households during farm operations.

Political:

- Youth and women associations: These are formal political organizations and developed relatively recently during the time of the socialist rule in the country (1974–91). They represent politically the youths and women in their respective locality and serve as a bridge between the government and the community and are used as a channel to convey messages from the government to the masses. Sometimes these associations are approached by some development organizations (such as NGOs) to promote income generation activities, community dialogue on HIV, family planning depending on the interest and availability of those organization and other interested groups who are willing and interested to work with women and the youth.

The participation of men and women farmers in social and productive networks demonstrates the long-established adaptive and survival strategies created and sustained by the concerted effort and leadership of rural communities. Membership is often determined by gender, age, locality and religion (Table 10). Men are more likely to belong to productive as well as social associations, whereas women tend to belong to a narrower range of associations reflecting their household and community roles. Women and men generally belong to traditional groups, such as the *Idir* (*Afosha* in Mieso) and *Ekub*. Women also participate in women's associations. Men are members of Geza, youth associations (Alaba), co-operatives (Metema), farmers' associations, farm working groups (Dale and Mieso), irrigation groups (Mieso) and harvesting groups (Fogera).

Table 10. Membership of groups by wealth and sex by PLW

Region	Woreda	Household wealth		
		Rich	Middle wealth	Poor
Tigray	Atsbi-Wemberta	Women: Tigray women's association Men: Tigray farmers' association	Women: Tigray women's association Men: Tigray farmers' association	Women: Tigray women's association Men: Tigray farmers' association
Amhara	Bure	Women: cooperative, <i>idir</i> , <i>ekub</i> , women's saving and credit group Men: cooperative, <i>idir</i> , <i>ekub</i> , saving and credit group	Women: cooperative, <i>idir</i> , <i>ekub</i> , women's saving and credit group Men: cooperative, <i>idir</i> , <i>ekub</i> , saving and credit group	Women: cooperative, <i>idir</i> , <i>ekub</i> , women's saving and credit group Men: cooperative, <i>idir</i> , <i>ekub</i> , saving and credit group
	Fogera	Women: 2 or 3 <i>mahiber</i> , groups for land preparation, <i>ekub</i> , <i>senbetie</i> Men: 2 or 3 <i>mahiber</i> , cooperatives, saving and credit associations, groups for harvest, <i>ekub</i>	Women: 1 or 2 <i>mahiber</i> , groups for land preparation Men: 1 or 2 <i>mahiber</i> , cooperatives, saving and credit associations, groups for harvest	Women: none or at most one <i>mahiber</i> Men: none or at most one <i>mahiber</i>
	Metema	Women: women's association Men: peasant association, cooperative, <i>idir</i> , <i>ekub</i>	Women: women's association Men: peasant association, cooperative, <i>idir</i> , <i>ekub</i>	Women: women's association Men: peasant association, cooperative, <i>idir</i>
Oromia	Ada'a	Women: <i>mahiber</i> , <i>idir</i> , <i>ekub</i> , women's savings association, cooperatives Men: <i>mahiber</i> , <i>ekub</i> , <i>idir</i> , cooperatives, peasant association	Women: <i>mahiber</i> , <i>idir</i> , <i>ekub</i> , women's savings association, cooperatives Men: <i>mahiber</i> , <i>ekub</i> , <i>idir</i> , cooperatives, peasant association	Women: <i>mahiber</i> , <i>idir</i> , <i>ekub</i> , women's savings association, cooperatives Men: <i>mahiber</i> , <i>ekub</i> , <i>idir</i> , cooperatives, peasant association
	Liben			
	Goma	Women: coffee cooperative, <i>idir</i> Men: coffee cooperative, <i>idir</i>	Women: coffee cooperative, <i>idir</i> Men: coffee cooperative, <i>idir</i>	Women: coffee cooperative, <i>idir</i> Men: coffee cooperative, <i>idir</i>
	Miesso	Women: <i>afosha</i> Men: <i>afosha</i> , working group for farm operations, irrigation group	Women: <i>afosha</i> Men: <i>afosha</i> , working group for farm operations, irrigation group	Women: <i>afosha</i> Men: <i>afosha</i> , working group for farm operations
SNPPR	Alaba	Women: <i>idir</i> , <i>ekub</i> , women association Men: <i>gezima</i> , <i>idir</i> , <i>ekub</i> , youth association	Women: <i>idir</i> , <i>ekub</i> , women association Men: <i>gezima</i> , <i>idir</i> , <i>ekub</i> , youth association	Women: <i>idir</i> , <i>ekub</i> , women association Men: <i>gezima</i> , <i>idir</i> , <i>ekub</i>
	Dale	Women: none Men: working group for farm operations, <i>idir</i>	Women: none Men: working group for farm operations, <i>idir</i>	Women: none Men: a few join <i>idir</i>

Source: IPMS gender survey.

Involvement in labour sharing, funeral and revolving credit associations is often based on wealth status and the capacity to contribute financially. For example, in Fogera rich and middle wealth category of men and women farmers may belong to more than one *mahiber* or association, while poor women do not participate in any association. Similarly, in Dale, poor women and men are not involved in the *idir* because they are unable to pay the monthly contribution. In contrast, in Alaba, poor women participate in both the *ekub* and *idir*. However, membership of women, youth and farmers' associations are open to all, regardless of wealth.

Membership can also vary between and within *woredas*. In Fogera, Quhar Michael *kebele*, rich and middle wealth women farmers belong to land preparation and harvesting groups while men and women in similar categories in Kidest Hana *kebele* are only involved in the *ekub*.

Women farmers living in male-headed households often feel excluded by the term 'peasant association'. Household membership in such associations is usually represented by the head of the household. The absence of an inclusive mechanism for both husbands and wives to be equal members of an association denies women the possibility of participation in meetings, training, experience sharing visits etc. Men are expected to participate in such events and pass on the information and knowledge gained to their wives. However, in practice, there is often little 'trickle across'. Women participate directly in women's associations but the activities are dominated by social or political discourse, whereas topics relating to farming skills, technologies, land use rights, water and natural resource use and management are peripheral.

5.2 Information sources

The sources of agricultural and non-agricultural information generally depend on the household wealth and on gender differences. Men depend mainly on formal information sources while women mostly exploit informal sources of information. Men from rich and middle wealth households get information from radios, development agents and extension workers, NGOs, and farmers' conferences at the *kebele* and *woreda* levels. In addition, they also have more possibility of accessing information through informal sources while they socialize with friends, from indigenous support and social networks like *ekub*, *idir*, *debo*, *afosha*, and from market places.

Women get information from neighbours while participating in indigenous self-help and social network associations, as well as through their husbands, school children and friends. The sources are mostly informal, indirect and sometimes provide incomplete

information. This pattern holds true across the PLWs, with the exception of Fogera where a few women have access to services and information through agricultural extension workers.

Box 11: Gender and information networks in Ada'a Liben

A study explored women's and men's proximity to information sources—in terms of ease and frequency of access—and identified which sources they considered to be most important. It would appear that men have more regular contact with information sources that they consider to be important, whereas there is a disconnect for women between their regular sources of information and those sources that they consider to be important.

The closest information sources for women included: their husbands; the radio because they spend most of their time at home doing their daily chores; neighbouring farmers they meet during social visits and gatherings; their school-attending children; and savings and credit associations. However, in terms of the importance of information sources, women ranked MoARD highly—even though it was a source with which they had no regular contact. Other important sources included neighbouring farmers, women's associations which are working to change and improve the lives of women, savings' associations, the radio and schools.

The information sources consulted regularly by men and also considered to be important included: development agents who provide information relevant to their needs, farmers' association, and other farmers with whom they exchange ideas and information. The radio was also important, but less so than for women.

Source: Meron Alemayehu, student and Nigatu Alemayehu, RDO Ada'a Liben PLW.

5.3 Sources of knowledge and skills

Wealth status and gender differences also influence the kind of knowledge and sources of skill for farmers. Men farmers access formal sources to improve their skills and knowledge, even in areas where women do most of the activities. Men directly access knowledge from development agents, extension agents, farmers' conferences, and *kebele* meetings, although the degree and access differs between rich, middle wealth and poor farmers. Men also exploit indigenous sources to advance their knowledge, such as elders' meetings and councils, visits to distant localities, and socializing with colleagues and relatives.

In contrast, women farmers rarely get extension support that would enable them to enhance their knowledge and skills, and thereby improve the performance of their agricultural activities. As a consequence, the traditional extension approach hinders agricultural development. The focus on men is based on the assumption that they will pass the knowledge acquired to their wives and other family members. But this does not happen in reality. Hence, women farmers usually have limited access to improved agricultural technologies and packages promoted by the extension system. This constrains their access to various inputs and services including knowledge, and limits their participation in market-oriented agricultural activities. This loss in productive potential not only impacts at the household level but also on the national economy.

5.4 Training

Men farmers from rich and middle wealth households are the principal participants at training courses and experience sharing visits organized by OoARD and NGOs. Poor men and women from all wealth groups have little opportunity to access training organized by OoARD.

As a consequence, women mainly depend on indigenous knowledge and skills passed on to them from their parents, while many men benefit from skills training and are to capitalize on their indigenous knowledge. This places men in a better position to take informed decisions and control domestic as well as the public spheres.

5.5 Implications for market-led growth

The analysis of information networking clearly demonstrates the gender dimension of accessing sources of information and opportunities for knowledge and skills development. This has serious implications for promoting agricultural development initiatives. As was observed in section 3, women contribute a significant amount to the agricultural labour force yet they are not updated regularly about new farming practices and have few opportunities to develop their skills base. Instead they have to rely on information being passed on to them from men, or ideas gleaned through their informal networks. In turn, this will affect their productivity and their ability to innovate and fulfil their productive potential. Specific recommendations to improve outreach are discussed in section 6.

6 Opportunities and IPMS responses for promoting gender equality through market-led growth strategies

This section summarizes the main implications of gender inequalities for IPMS and discusses a range of opportunities for promoting gender equality through improving agricultural productivity and market linkages. The approach uses a mixture of measures which tackle issues of empowerment and equity/equality by addressing strategic gender needs in order to improve the 'position' of women, in addition to measures to address practical gender needs which improve 'condition' of women through gains in efficiency and income. It also identifies ways in which gender considerations may be mainstreamed into operational procedures and notes possible implementation partners. The section concludes with a reflection on the successes and challenges encountered in IPMS experiences to date.

6.1 Summary of implications for IPMS

The gender study undertaken in 10 PLWs found that women play significant roles in the lives of the rural community. Their involvement in the production, harvesting, post harvest handling, and in day-to-day management of crop and livestock enterprises is immense, especially when account is taken of their daily responsibilities towards the household, such as fetching water and fuelwood, cooking and caring for the young and elderly. However, these contributions are often in stark contrast to their limited participation in marketing and decision-making regarding the use of benefits from production. While some enterprises are recognized as being principally in the women's domain, their degree of control varies between location, wealth of the household and degree of commercialization.

Moreover, reflecting the traditional channels of communication and opportunities for skills development, women are not updated regularly about new farming practices and have to rely on their informal information and social networks. This constrains their access to various improved inputs and services including knowledge, and limits their adoption of new technologies and hinders their participation in market-oriented agricultural activities.

6.2 Opportunities for promoting gender equality and women's empowerment

The opportunities for promoting gender equality and women's empowerment through market-led initiatives may be grouped into five themes, which address the major areas where gender

inequalities are most pronounced; each is discussed below. They are illustrated with examples of innovative approaches that have been developed, field-tested and implemented by IPMS in several *woredas*, often in partnership with other organizations.

Increasing women's access to and control over assets

Activities to address the fundamental imbalances in women's access to inputs and services include:

- Involving women farmers, both female-headed households and married women, directly in farmer association activities.
- Working with partners to facilitate women's access to extension advice, credit and inputs, especially for crop and livestock enterprises that are mainly in the women's domain.
- Targeting women and female-headed households to participate in technology development, transfer and adoption (Box 12).

Box 12: Dale women's contribution in raising tropical fruit trees

In Dale, tropical fruit trees, mainly avocado and mango, are interspersed among the garden coffee as a source of shade as well as a source of fruit and cash. However, farmers are dissatisfied with the traditional varieties because they grow to a height of 20 metres which makes fruit picking very difficult, they have large canopy and extensive root system which competes with coffee, and sometimes they do not bear fruit for up to 10 years. Consequently, many farmers are removing these trees.

Grafted seedlings, which would overcome these problems, are available in government farms but they are not available in sufficient numbers to satisfy demand. Drawing on the successful experience of engaging farmers in raising coffee seedlings in Dale *woreda*, it is agreed that selected farmers would be trained in raising grafted seedlings. In order to empower women, IPMS selected wives and their husbands, and women heads of household to be trained in nursery management including grafting.

Ten women and ten men were trained during the first session and three of the couples established nurseries. The women participate equally in raising and managing the nurseries, activities which are considered by many to be in the men's domain. The income potential is attractive and the wives will have also better position to claim money derived from the sale of seedlings and fruit because they are also providing skilled labour inputs.

Source: Ketema Yilma, RDO, Dale PLW

- Selecting women to host demonstrations and field days.
- Initiating efforts with partners to work towards ensuring a fair use of household income through awareness raising and behaviour change communication at the community and household levels (through household planning and community conversations).
- Setting up women's self-help groups for savings and credit.

Increasing women's access to skills and knowledge

Activities to increase women's opportunities to strengthen their skills and knowledge base include:

- Supporting development and extension workers to help all farmers, including those from poorer households and women, to gain access to relevant information sources to make their lives and farming activities easier.
- Adopting different training approaches to increase women's participation (e.g. training husband and wife couples, providing separate training for women, and ensuring the timing and venues are convenient for women) (Box 13).
- Developing women's skills in areas that are not traditionally considered to be in the women's domain (Box 14).
- Supporting community initiatives to create opportunities for women farmers to access formal information sources, at the very least the radio, which is often carried by men farmers while they stay away from their homes for various purposes.
- Supporting functional adult literacy classes for women and men.
- Developing women's and men's skills in managing and saving money.
- Setting up women's self-help groups for knowledge sharing.

Increasing women's participation in market-oriented agricultural production

Activities to increase women's participation in agricultural production need to address issues of market access such as:

- Supporting the development of crop and livestock enterprises that are in the women's domain, and taking steps to ensure they retain control of the benefits during this process of commercialization (Box 15).
- Supporting the development of crop and livestock enterprises that are not traditionally in the women's domain (Boxes 16 and 17).
- Promoting household planning for building trust and encouraging skills among household members, and promoting the fair use of earnings.
- Setting up women's self-help groups for processing and marketing, including sharing market information in order to gain economies of scale and stronger market bargaining power.

Box 13: Impact of couples' training on division of labour in dairying households in Ada'a Liben

Both husbands and wives have been invited to IPMS training as an opportunity to enhance the role of women in knowledge-based commercial dairy production. In Ada' Liben PLW this has resulted in a substantial change in the division of dairy work among household members. Prior to the training, women bore most of the burden of work in 85% of the households and only in 10% of the households was there an equal division of work (see table below). After the training, women's sole workload decreased to 35% of households, whilst the proportion of sharing the work increased to 50%.

Gender and labour sharing before and after couples' training in dairying in Ada'a Liben

Division of labour	Before couples' training (% of households)	After couples' training (% of households)
Only female labour	75	35
Equal share of work between husband and wife	10	50
Only male labour	15	15

Participants said that the couples' training allows partners to understand, assist and appreciate each other technically so that they gradually build up their knowledge together, thereby overcoming the weakness of relying on husbands to pass information to their wives after training. It also helps breaking taboos about the traditional gender division of labour and contributes to bringing about gender equality.

Source: Nigatu Alemayehu, RDO and Hailu Gudeta, RDA, Ada'a Liben PLW.

Box 14: Promoting oxen technology with women in Bure *woreda*

Most of the land in Bure *woreda* is used for annual crops, mainly cereals. Farmers traditionally prepare a fine seedbed for cereals using paired oxen pulling a *maresha* (wooden plough with metal share); culturally, only men do this activity. As a result, women lack the theoretical knowledge and practical skills to plough their land using the *maresha*. Moreover, society does not accept women to be involved in this farm activity. This cultural barrier forces female-headed households to share their land resources with men, either by renting out their land to male-headed households or by share cropping with men in order to get their land cultivated.

One woman heading a household decided to break out of this norm and ploughed her land on her own. This initiative was recognized by Women's Affairs Office (WAO) as a model and the Office organized practical training on ploughing using oxen for 21 women household heads and other women. However, only two participants adopted the training because of the strong cultural barriers in the area. The adopters were two schoolgirls raised in families without a son. They now assist their fathers in ploughing; their fathers are happy with what their daughters are doing and acknowledge their contribution to the family. The WAO has subsequently organized a field day on oxen ploughing for women for about 200 farmers (both women and men). Those women trained in ploughing undertook the demonstrations.

This exercise demonstrates the importance of repeated awareness creation in order to remove the existing cultural barriers. It also highlights the importance of selecting appropriate trainees, such as schoolgirls, who do not face strong social challenges compared to married women, when they plough with oxen.

Other opportunities to increase women's involvement in agricultural production and overcome inbuilt inequalities, undertaken by IPMS together with WAO and OoARD, include introducing and demonstrating conservation tillage technology (because the practice does not require frequent cultivation) and involving them in the multiplication and production of fruit crops (avocado, banana and papaya) because this does not require ox cultivation.

Source: Yigzaw Dessalegn and Yohannese Mehari, Bure PLW.

Box 15: Women's economic empowerment through forage development in Atsbi-Wemberta

In Atsbi-Wemberta *woreda*, one of the major limitations to the exploitation of marketable livestock products is the shortage of animal feed. IPMS has promoted the development of feed resources on degraded slopes and valley bottoms to produce dry fodder and the intervention made special efforts to reach FHHs. Prior to this intervention, rural women had little or no benefit from these grazing areas because there was insufficient grass to harvest so they simply rented out their land to people with cattle as a grazing field.

Following this initiative, the FHHs, accounting for about 30% of the total beneficiaries, have benefited from:

- Renting out their forage plots, without the need for any labour inputs, for about ETB 250–500 per year per plot (compared to ETB 5 per plot per year before the intervention)

- Exchanging grass with men in return for their labour and ploughing their farmland.
- Harvesting, storing and selling the fodder during the months of fodder shortage.
- Fattening about 2–4 shoats per year, each selling for about ETB 250–400 compared to ETB 150–200 per unfattened shoa.

By increasing the income of women heading households through forage development, their dependency on men can be substantially reduced. This in turn may reduce the need for polygamy and vulnerability to HIV infection. It may also encourage these women to participate in other market-led agricultural development activities, such as poultry or butter trading because they already have the knowledge, experience and the skills to produce and sell these commodities. Women were targeted by IPMS for training in poultry production and marketing and, as a result, some have shown an interest in moving from selling local drinks to engaging in market-oriented businesses. Moreover, because of the increased availability of fodder close to home, less time is required to look after the animals while they are grazing away from home and this may reduce women's risk of sexual harassment and exposure to possible HIV infection, and enable children to attend school full-time.

Source: Gebremedhin Woldewahid, RDO, Atsbi-Wemberta *woreda*.

Box 16: Empowerment of a woman heading a household through nursery development and experience sharing visit in Bure *woreda*

'My husband died 15 years ago. I started working in a government nursery nearby in order to earn some money to support the family while my daughter stayed at home to look after her three brothers. Unfortunately, I lost 1.25 ha during the land redistribution that took place 10 years ago. Because I was working, it was felt that I did not need much land and was left with only 0.5 ha.

Although I did not attend school, I have always been keen to attend workshops and field days organized by the OoARD and the administrative council. Three years ago experts advised us about the benefits of fruit multiplication, especially for those with a shortage of land. I started my own nursery and saw it was more profitable than working in the government nursery so I left the latter to work on my own.

On my 0.5 ha I now have coffee trees, a eucalyptus plantation, a small nursery (with coffee, avocado, mango, eucalyptus and hops); I also grow finger millet and maize in rotation. My relatives and sons assist me and, in return, I help them with their weeding. We plant in rows because, unlike broadcasting which is a skill, anyone can do it including women and children. We also have a small shop selling kerosene.

I bought a cow last year and a second one this year; we use some of the milk at home and sell the butter in the market. We also have six sheep, which were bought with money that my son earned for herding calves, and a few chicken.

Through IPMS I have attended training in fruit nursery grafting (together with 10 men) and have received fruit scions and pepper seedlings for demonstration purposes. I also had the chance to join an experience sharing visit when 10 of us (three women and seven men) travelled for 14 days throughout Ethiopia, visiting IPMS sites in Tigray, Amhara, Oromia and SNNPR. The trip was like a dream. I did not imagine I would ever have the chance to visit these places, given my status as a widow. I had been out of Bure *woreda* only once before, to Bahir Dar. On this trip I saw many things that I want to follow up: poultry, fruit and vegetables. I have already adopted some of ideas I have seen, such as urban agriculture techniques.

I belong to a savings association. Initially I saved ETB 10 a month, but now I save ETB 20 a month. The group has about 200 members, of whom only a small number are women. I have borrowed money from the group to rent an additional 0.5 ha which I share crop with another person who provides the labour, seed and fertilizer; we share the harvest of maize/finger millet equally.

I also belong to an irrigation cooperative, through which I have received training and some equipment (watering can and spade for use in the nursery); I market some of my produce through the group.

I have been motivated to succeed by the challenges I face, with no husband to support me and only a little land, to raise our family. I have also been selected to participate in conflict resolution in the community and have received some leadership training.'

Source: Yigzaw Dessalegn, RDO, Bure PLW.

Box 17: Women's irrigation group in Tumet, Metema

In Tumet, with the support of the WAO, about 49 women from male headed and female headed households from Gumiz community organized themselves into a group to grow bananas. The *woreda* administration provided them with two motor pumps as a prize for their initiative to be engaged in producing and marketing bananas. They have also received support from a farmer who is prepared to sell them banana suckers with a 50% discount in order to motivate them. IPMS and BoARD provided appropriate training on banana production management. This is the only women's irrigation group out of 10 such groups in Tumet.

Source: Worku Teka, RDO, Metema PLW.

Strengthening women's decision-making role

Activities to strengthen women's role in decision-making in the household, farmer groups, and local associations include:

- Training women in group formation, leadership skills, confidence building and negotiating skills.
- Designing strategies to provide women with more knowledge and information to enable them to make informed decisions.
- Conducting gender awareness training at the community level to increase general understanding about the importance of including women in rural development opportunities.

Improving the wellbeing and easing workloads

Activities to ease women's workloads by facilitating access to labour saving technologies not only improve their wellbeing but also give them more opportunity to participate in productive activities, if they wish:

- Identifying and promoting labour saving technologies for activities performed by women in relation to marketable commodities, as well as other household tasks.
- Involving women in technology demonstrations and applications in order to understand and assess the impacts of technologies on their workloads.
- Changing the mindsets in rural communities to move towards a more equitable distribution of workloads between women and men.
- When promoting new enterprises, considering the labour requirements of the whole farming system, rather than individual enterprises, their distribution between different household members, their implications for labour peaks and assessing the availability of, and the capacity of households to hire additional labour to cope with labour peaks or other means of labour spreading.

6.3 Operational measures for gender mainstreaming

In addition to the activities described above which address gender inequalities through strengthening project design, opportunities also exist to mainstreaming gender considerations into operational procedures.

Setting specific targets in terms of the proportion of women participants in different activities and relevant decision-making bodies

- Examples of a target for women's participation: 50% of trainees in crop marketing will be women; 30% attendees at field day will be women.
- Examples of target for women's representation in marketing groups: women will account for at least 40% of the membership, 30% of the leadership positions and will hold at least one office-bearing position.

Increasing the ability of field staff to ensure outreach to women

- Develop the capacity of extension service and development agents to mainstream gender in their activities (e.g. calling meetings, training at the farmer training centres and field days).
- Encourage female extension staff to participate in training and field visits, both to develop their capacity and to encourage women farmers to attend.
- Incorporate gender issues into agricultural Technical and Vocational Education and Training (TVET) curriculum and other training for development agents.
- Use communication channels that are accessible by women regarding extension messages, market information etc.
- Ensure training is women-friendly (in terms of venue, time of day, duration, language of instruction, use of women trainers, materials, provision for childcare).
- Include women in novel approaches to training, such as study tours (Box 18).

Working with partners with experience of and willingness to work with women

- Review activities and experiences of actual and potential partners to determine their skills and commitment to gender equality.
- Strengthen the gender capacity of government (at all levels), service providers and implementing partners to mainstream gender into their activities (Box 19).
- Discuss successes and challenges of gender mainstreaming at IPMS *woreda* workshops and integrate gender considerations into *woreda* action plans.
- Encourage the recruitment of women field workers in order to improve outreach at the field level.
- Work with associations and cooperatives to increase women's participation as members and leaders.

- Support institutional transformation at the *woreda* level, particularly in the OoARD and the Office of Pastoral and Rural Development, to provide planning, facilitation and monitoring extension services in a gender sensitive manner and to strengthen linkages with WAO.

Box 18: Women's access to skill and knowledge stimulates the dairy sector in Alamata PLW

IPMS has collaborated with OoARD in Alamata to arrange study tours and formal training for women farmers in order to improve milk production. Through these initiatives women have been empowered to develop skills and knowledge about small-scale dairying.

One particularly innovative activity was a study tour to Ada'a Liben in January 2006 in which 39 farmers, including 14 women, participated. They were inspired by what they observed regarding the performance and handling of improved dairy cows, the type and amount of feed they consume, AI services and health care. This was the first such visit for these women, some of whom were already dairy farmers but they kept poor breeds.

As a follow up activity, local Begait breeds which are good milk yielders were introduced from Humera and distributed on credit to 36 farmers, including some of the women. Subsequently, training on improved dairy management and feed utilization as well as visit to two private dairies in Alamata town and Kalamino dairy PLC in Mekelle were undertaken in December 2006 by 35 women residing in peri-urban areas near Alamata town. As a result of these trainings and study tours, individual performances have improved, in terms of milk production and sales of skimmed milk and butter. Women's membership of the local dairy cooperative, where they purchase their feed and sell their milk, has increased from one woman in 2005 to 133 in 2007, while the respective figures for men rose from 19 to 22.

Source: Abraham Birru (RDA) and Gebreyohannes Berhane (RDO), Alamata PLW.

Box 19: IPMS capacity building of partners in gender mainstreaming

IPMS has provided a range of training to implementation partners, from national level workshops addressing the broad issues of gender mainstreaming in market-led agricultural development (attended by staff from MoARD, research institutes, FAO, NGOs and other donors), to *woreda* level training focusing on very practical aspects of integrating gender considerations into the daily work of development agents. Gender has been integrated into IPMS planning activities at both national and *woreda* levels. On all such occasions, initiatives to address gender inequalities through agricultural development have been discussed together with opportunities to reduce the risk of HIV infection and mitigate the impacts of AIDS.

Increasing the visibility of women

- Form linkages with institutions working to address gender imbalances for sensitization on women rights and legislation to protect women's rights.
- Engage in policy dialogue about gender inequalities and promote legislation to address gender imbalances in the rural sector.
- Make a platform for women to demonstrate their capabilities, e.g. leading demonstrations and discussions, making presentations, participating in agricultural technology exhibitions.
- Enable women to demonstrate their capacity to work in traditional male-dominated activities and enterprises; select women as model farmers, in conjunction with Women's Affairs Office.
- Work with women experts and subject matter specialists.
- Work with women leaders and innovators in communities.
- Identify successful women in the agricultural sector and publicise as role models.
- Provide entrepreneurship awards to women and men farmers, women and men development agents.

Monitoring and evaluating development impacts from a gender perspective

- Identify sex-disaggregated performance and impact indicators to monitor change with respect to gender equality during the life of the project.
- Collect and report on sex-disaggregated information and analyse to understand gender perspective.
- Explore social, cultural and economic variables that contribute to gender imbalances in market-led agricultural development.
- Explore the reasons for the acceptance or rejection of certain technologies by gender.

6.4 Working in partnership

IPMS projects work with a range of partners to implement gender initiatives in their respective roles for integrating gender issues into IPMS activities are presented in Table 11. Opportunities for operationalizing such arrangements have been explored at the gender and HIV/AIDS action planning workshops have been held in each of the PLWs during 2007 and 2008, and have been integrated into the annual work plans.

Table 11. *Partners and their role in addressing gender issues in IPMS project*

Partner	Role
MoARD (national level)	Policy addressing gender equality Integrating gender issues into agricultural TVET curriculum Recruitment of women development agents
Bureau of Agriculture (regional level)	Capacity building Training Policy implementation
Office of Agriculture (<i>woreda</i> level)	Training and capacity building (for example, income generation for women) Introducing labour saving technologies
Women's Affairs (all levels)	Strengthening women's empowerment
Private sector	Supplying labour saving technologies
Community associations, women's associations/groups	Awareness raising about role of women in agricultural decision-making Gender empowerment
NGOs	Implementing training Supporting input supply and technologies for FHHs and women
Research institutes	Developing technologies that address gender roles
Microfinance institutions	Promoting access to savings and credit for women and FHHs

6.5 Successes and challenges with IPMS experience to date

The practical experiences of implementing a range of activities for promoting gender equality through the IPMS project have benefited a number of women in commodity development initiatives and have generated a number of useful lessons.

Key success factors create an enabling environment and facilitate the use of good practices at the *woreda* level. They include:

- Enabling legislative environment: national Plan for Accelerated and Sustained Development to End Poverty (PASDEP), National Policy on Gender, and Family Law;
- Stakeholders' understanding and commitment: to gender mainstreaming (especially the OoARD);
- Mindset change: with husbands letting their wives participate in agricultural development activities, training, membership of organizations; and the wives being interested in doing so;
- Effective working partnerships in *woreda* with complementary players to address gender issues, especially WAO; and
- Availability of complementary services, such as credit, functional adult literacy classes and community conversations.

However, a number of challenges remain to achieving successful gender mainstreaming, including:

- Limited impact orientation, with poor linkages between planning, implementation and outcomes and a lack of gender sensitive monitoring and gender disaggregated data;
- Limited vision of women's potential and what they are capable of achieving, exacerbated by cultural barriers, religious influences and a male-dominated society, make it difficult to address gender in rural and pastoralist communities and inhibit encouragement of gender sensitive commercial enterprises;
- Limited number of women staff members among OoARD, development agents and *woreda* leadership and hence a shortage of women staff for capacity building;
- Limited number of women in leadership positions: cooperatives, community and project-related bodies;
- Limited access by women to formal information and knowledge flows, compounded by their lack of resources to follow up training and skills development (e.g. credit, land) and their limited ability to take market risks;
- Low visibility of married women, resulting them being bypassed in technology transfer and information flows;
- Lack of attention to developing women's skills in business, entrepreneurship, leadership and management;
- Technology and research bias towards men's enterprises and technologies;
- Weak coordination between stakeholders and partners, their limited understanding of the importance of promoting gender equality exacerbated by a reluctance to change, and limited access to relevant documentation about gender issues at the *woreda* level

6.6 Final thought

This paper has demonstrated that site-specific commodity-based gender analysis is essential for understanding the different roles of women and men in the production of specific commodities, marketing and decision-making, and their share in the benefits; identifying potential barriers for women's and men's participation in market-led development initiatives and technology adoption; and identifying what actions may be required by the project in order to overcome some of these barriers which limit women's participation on those particular commodities development initiatives. The experience of the IPMS project in various *woredas* illustrate how this type of analysis helps to explore challenges and to identify opportunities for promoting gender equality and women's empowerment through increasing women's access to skills, knowledge, assets and increasing women's participation in market-oriented agricultural production and their control over the benefits. The practical experiences to date have generated useful lessons and the unresolved challenges to successful gender mainstreaming will be addressed during the remaining years of the IPMS project.

Annex 1: List of study communities in 10 PLWs

Region	Woreda	Number of fieldwork sites	Kebeles
Tigray	Alamata	4	Gerjelle, Kulugize Lemlem, Limat, Tumuga
	Atsbi-Wemberta	4	Gebrekidan, Golgol Naele, Hayelom, Kelsha Emini
Amhara	Bure	4	Arbisi, Fetam Semtom, Windigi, Zalema
	Fogera	4	Alem-ber, Gub Tsion, Kehar Michael, Kidest Hana
	Metema	2	Tumet Mendoka, Agame Woha
Oromia	Ada'a Liben	3	Dire Arerti, Gobesay, Ude
	Goma	3	Bullbulo, Genji Elbu, Limu Sapa
	Miesso	4	Direqallu, Harconcha, Odabella, Odaqeneni
SNPPR	Alaba	4	Alem Tenna, Andegna Teffo, Holegeba, Uletegna Teffo
	Dale	2	Hantete, Shefina

Annex 2: List of enterprises studied by PLW

Enterprises		Woredas and regions	Number of assessments	
Cereals	Teff	Ada'a Liben, Oromia	3	
		Alaba, SNPPR	2	
	Sorghum/teff	Alamata, Tigray	2	
	Sorghum/maize	Miesso, Oromia	4	
	Wheat	Bure, Amhara	2	
		Ada'a Liben, Oromia	3	
	Rice	Fogera, Amhara	2	
	Pulses	Faba beans	Atsbi-Wemberta, Tigray	2
			Bure, Amhara	2
			Ada'a Liben, Oromia	1
Field peas		Atsbi-Wemberta, Tigray	2	
Haricot beans		Alaba, SNPPR	2	
		Dale, SNPPR	1	
Chick-peas		Ada'a Liben, Oromia	1	
Lentils		Atsbi-Wemberta, Tigray	2	
Oil and industrial crops		Cotton	Metema, Amhara	3
		Sesame	Metema, Amhara	3
	Noug	Fogera, Amhara	2	
Vegetable crops	Vegetables	Atsbi-Wemberta, Tigray	3	
		Bure, Amhara	2	
	Onions	Fogera, Amhara	1	
	Garlic	Fogera, Amhara	1	
	Pepper	Bure, Amhara	2	
		Fogera, Amhara	1	
		Alaba, SNPPR	2	
		Dale, SNPPR	2	
	Trees	Coffee	Goma, Oromia	3
			Dale, SNPPR	2
Multipurpose forage		Alaba, SNPPR	3	
Eucalyptus		Alaba, SNPPR	1	
		Fogera, Amhara	4	
Fruit		Atsbi-Wemberta, Tigray	1	
		Papaya	Alamata, Tigray	4
Bure, Amhara			1	
Mango		Alamata, Tigray	4	
		Bure, Amhara	4	
	Goma, Oromia	3		
Avocado	Bure, Amhara	4		
	Goma, Oromia	3		
	Dale, SNPPR	1		

Enterprises		Woredas and regions	Number of assessments	
Livestock	Cattle	Alamata, Tigray	4	
		Fogera, Amhara	3	
		Metema, Amhara	2	
		Ada'a Liben, Oromia	3	
		Miesso, Oromia	4	
		Dale, SNPPR	2	
	Dairy	Atsbi-Wemberta, Tigray	4	
		Ada'a Liben, Oromia	3	
		Alaba, SNPPR	4	
	Small ruminants	Atsbi-Wemberta, Tigray	4	
		Alamata, Tigray	4	
		Bure, Amhara	4	
		Fogera, Amhara	2	
		Metema, Amhara	1	
		Goma, Oromia	3	
		Miesso, Oromia	4	
		Atsbi-Wemberta, Tigray	4	
		Atsbi-Wemberta, Tigray	4	
	Skin and hides	Atsbi-Wemberta, Tigray	4	
		Atsbi-Wemberta, Tigray	4	
	Poultry	Bure, Amhara	4	
		Fogera, Amhara	1	
		Ada'a Liben, Oromia	3	
		Goma, Oromia	3	
		Alaba, SNPPR	1	
		Apiculture	Atsbi-Wemberta, Tigray	4
			Bure, Amhara	4
Ada'a Liben, Oromia	1			
Goma, Oromia	3			
Alaba, SNPPR	1			

Annex 3: Gender division of labour in crop enterprises

This annex examines the gender division of labour for a range of crop enterprises. The general distribution of labour for each specific enterprise is presented by PLW in the tables and any site-specific differences are noted in the text.

Cereal crops

Cereals are male-dominated commodities in all PLWs (Table 1). Most of the production activities (in particular land clearance, tillage using oxen, seed selection, sowing, fertilizing/manuring, threshing, winnowing and storing) are accomplished by men. At most sites, women and men work together in weeding, harvesting and day-to-day management. Women usually have sole responsibility for processing.

Table 1. Gender division of labour in cereal production

Activity	Alamata (Teff and sorghum)			Bure (Wheat)			Fogera (Rice)			Ada'a Liben (Teff and wheat)			Alaba (Teff)		
	W	M	share	W	M	share	W	M	share	W	M	share	W	M	share
Land clearance															
Tillage—hand															
Tillage—oxen															
Seed selection															
Sowing															
Fertilizing/manuring															
Spraying															
Weeding															
Harvesting															
Threshing															
Winnowing															
Processing/value adding															
Storing															
Marketing															
Day-to-day management															

Some allocation of tasks is very site specific and differ from the general picture presented in Table 1. For example, in Zalema of Bure, women are responsible for seed selection, storing and preparing the threshing fields. In Dire Arerti of Ada'a Liben, threshing teff, and harvesting and processing wheat are shared activities while fertilizing teff and day-to-day management of wheat are only for men and women respectively. In Golo Ertu

of Ada'a Liben, storing teff and weeding wheat are shared activities. In other areas, the wealth of the household influences the distribution of work: in Alamata, women from poor households participate in all production activities for teff and sorghum, except land clearance and tillage by oxen.

Cereals are grown for both the market and domestic consumption. Wheat and teff are grown principally for market in Ada'a Liben and teff and sorghum in Alamata. Rich and middle wealth households in Bure, Fogera and Alaba sell considerable proportion of wheat, rice and teff, respectively. Men usually control the income from cereal crops. Mieso would appear to be an exception: only men from rich households in Harconcha, Direqallu and Odaqeneni control the income from sorghum and maize; elsewhere the income is either shared (for example in the middle wealth households of Harconcha and Direqallu) or controlled by women (in the poor households of Harconcha, Direqallu and Odaqeneni).

Pulse crops

There would appear to be a marked difference in the division of tasks by gender between the two PLWs in SNNPR and the other PLWs (Table 2). In Alaba and Dale, haricot bean production is almost exclusively a man's crop, with women contributing to specific activities (fertilizing in Dale, and weeding and harvesting in Alaba). In other *woredas*, apart from the initial land clearance, tillage and planting, most of the other operations are shared between women and men. Nevertheless, there are still some site specific variations in task allocation: storing faba beans is a shared activity in Golo Ertu of Ada'a Liben and in Wendigi of Bure seed selection is a shared activity, while storing is women's activity. In poorer households in Atsbi-Wemberta and Ada'a Liben, women participate in preparing the land by hand.

Faba beans and field peas are grown for both domestic consumption and market in Atsbi-Wemberta, whereas lentils are grown mainly for market. Men tend to control the income, especially in the rich and middle wealth households.

In Bure, faba beans are grown for both consumption and domestic market, except among the poor households because they do not have any surplus produce to sell. The income from faba beans is controlled by men in rich households and shared in middle wealth households. Chick-peas and faba beans in Ada'a Liben and haricot beans in Dale and Alaba are grown mainly for the market and men control the income. In Alaba, women grow red haricot beans, solely for household consumption.

Table 2. Gender division of labour in pulse production

Activity	Atsbi-Wemberta (Faba bean, field pea and lentil)			Bure (Faba bean)			Ada'a Liben (Chick-pea and faba bean)			Alaba (Haricot bean)			Dale (Haricot bean)			
	W	M	share	W	M	share	W	M	share	W	M	share	W	M	share	
Land clearance		■			■				■	■					■	
Tillage—hand							■									
Tillage—oxen		■			■			■			■				■	
Seed selection						■		■			■				■	
Sowing/transplanting		■			■			■			■				■	
Fertilizing/manuring			■			■			■		■			■		
Spraying			■					■								
Weeding						■			■			■			■	
Harvesting			■			■			■			■			■	
Threshing									■		■				■	
Winnowing						■					■					■
Processing/value adding			■						■							
Storing											■				■	
Marketing			■			■			■			■			■	
Day-to-day management			■			■			■			■			■	

Oil and industrial crops

Cotton, sesame and noug are male-dominated commodities (Table 3). In Metema, men perform all operations for cotton and sesame; they are assisted by their wives only for weeding and storing. In Tumet, women also help with picking cotton. In the rich households of Metema, all of the operations (except spraying) are performed by hired labour. In Fogera, men till the land, harvest, thresh and winnow noug; their wives assist with sowing, weeding and day-to-day management. Women are solely responsible for processing and storage. There are also site specific variations: in Addis Bete Christian of Fogera seed selection and day-to-day management are performed by women and men respectively. Poor households in Fogera do not grow noug because they have a shortage of land and give priority to growing food crops.

Cotton, sesame and noug are grown mainly for the market and men control most of the income. Women in rich and middle households sometimes sell small quantities of these

crops to generate some cash income, depending on the amount of produce available in the household.

Table 3. Gender division of labour in oil/industrial crops production

Activity	Metema (Cotton and sesame)			Fogera (Noug)		
	W	M	share	W	M	share
Land clearance		■			■	
Nursery						
Tillage—hand						
Tillage—oxen		■			■	
Seed selection					■	
Sowing		■				■
Fertilizing/manuring						
Spraying		■				
Weeding			■			■
Harvesting		■			■	
Threshing		■			■	
Winnowing					■	
Processing/value adding		■		■		
Storing			■			
Marketing		■			■	
Day-to-day management		■				■

Vegetables

In Atsbi-Wemberta and Bure, most aspects of vegetable production are shared between women and men, with the exception of tilling the land using oxen (Table 4). Interestingly, in Addis Bete Christian of Fogera, women do most of the activities associated with growing peppers, whereas in Alaba most of the operations are performed solely by men. In Fogera, onion production is a shared activity.

All vegetables are grown as cash crops, except for potato and garlic, which are grown for home consumption in Bure and Fogera, respectively. The income is usually controlled by men, except in Atsbi-Wemberta and Bure where it is shared, especially in the poor households. Women in Fogera control the income from pepper while in Alaba and Bure, women sometimes sell small volumes of vegetables on an occasional basis.

Table 4. Gender division of labour in vegetable production

Activity	Atsbi-Wem-bereta (Vegetables)			Fogera (Onion, garlic and pepper)			Bure (Potato and pepper)			Alaba (Pepper)		
	W	M	share	W	M	share	W	M	share	W	M	share
Land clearance			■						■		■	
Nursery			■			■			■		■	
Tillage—hand					■							
Tillage—oxen								■				■
Seed selection						■			■			■
Planting/sowing/transplanting			■			■			■			■
Fertilizing/manuring			■	■					■			■
Spraying			■								■	
Weeding			■			■						■
Hand dug well					■				■			
Water harvesting pond					■						■	
Water lifting			■		■							
Water distribution			■		■							
Harvesting									■			■
Processing/value adding				■							■	
Storing				■					■		■	
Marketing		■		P	O, G			■			■	
Day-to-day management						■			■			■

Coffee

Coffee is a male-dominated cash crop in both Goma and Dale (Table 5). Men do most of the heavy manual labour such as land clearance, tillage by hand and oxen, weeding, pruning and soil conservation; women do the manuring in Dale, particularly in the fields close to home. They work together for harvesting, storage and management. In Goma, nursery, tillage by hand, planting, manuring, harvesting and drying are joint activities while, in Dale, only harvesting, storing and day-to-day management are shared. However, due to site specific variations in Goma, planting in Limu Sapa and manuring in Genji Elbu are tasks for men and women respectively. Coffee is grown mainly for the market and men control the income. Women sell very small amounts (a few kilograms) on a regular basis to raise money for household needs.

Table 5. Gender division of labour in coffee production

Activity	Goma			Dale		
	W	M	share	W	M	share
Land clearance		■			■	
Nursery			■		■	
Tillage—hand			■			
Tillage—oxen		■				
Seed selection		■				
Planting					■	
Manuring			■			
Pruning		■			■	
Spraying		■				
Weeding		■				
Harvesting			■			■
Drying			■			
Transport for processing		■				
Storing			■			■
Marketing		■			■	
Day-to-day management		■				■

Forage trees and eucalyptus

Forage trees and eucalyptus are grown for household use, as a store of wealth and for sale. They are male-dominated enterprises in Alaba, whereas in Fogera eucalyptus production is a shared activity (with the exception of Alem-ber where all activities are the responsibility of men) (Table 6).

Table 6. Gender division of labour in multipurpose tree production

Activity	Fogera (Eucalyptus)			Alaba (Forage and eucalyptus)		
	W	M	share	W	M	share
Land clearance					■	
Nursery			■		■	
Seed selection					■	
Planting/sowing/transplanting			■		■	
Harvesting		■				■
Transport for processing/value adding		■				
Marketing		■			■	
Day-to-day management		■				■

In Alaba, with the exception of very rich households which may own as many as 1000 eucalyptus trees, these trees are grown primarily for home consumption. A small volume

is sold annually at the timber market to traders or consumers. In Fogera, eucalyptus is a cash crop, sold predominantly by men as timber. The sales are made every six months by richer households whereas in middle wealth households the trees are sold when there is a need for cash.

Fruit trees

Fruit tree production, including papaya, mango, avocado and banana, is a shared activity in Atsbi-Wemberta, Alamata and Goma, whereas in Dale and Bure men do most of the work (Table 7). There are slight differences within Bure where all the activities are shared between men and women except land clearance and nursery performed by men and women respectively. Fruit is usually produced for market, except in Bullbulo of Goma where less than half of the produce is sold. In Alamata, only women sell the fruit, either to private traders or directly to consumers in the market, and they control the income. In Dale, men are responsible for harvesting and marketing; the crop is usually sold at the farm gate to merchants or middlemen and the income is shared.

Table 7. Gender division of labour in fruit production

Activity	Atsbi-Wemberta (Fruit)			Alamata (Papaya and mango)			Bure (Mango, avocado and banana)			Goma (Mango and avocado)			Dale (Avocado)		
	W	M	share	W	M	share	W	M	share	W	M	share	W	M	share
Land clearance															
Nursery															
Tillage—hand															
Planting/sowing/transplanting															
Fertilizing/Manuring															
Protection															
Pruning															
Weeding															
Watering															
Water harvesting pond															
Water lifting															
Water distribution															
Harvesting															
Processing/value adding															
Storing															
Soil conservation															
Marketing															
Day-to-day management															

Annex 4: Gender division of labour in livestock enterprises

This annex examines the gender division of labour for a range of livestock enterprises. The general distribution of labour for each specific enterprise is presented by PLW in the tables and any site-specific differences are noted in the text.

Dairy

Dairy is typically a shared enterprise, often with men and women taking on different responsibilities (Table 1). In Ada’a Liben and Alaba, hygiene, dung collection, processing, storing and day-to-day management are sole responsibilities of women and, in Alaba, they are also responsible for milking and making butter. Men are responsible for breeding, rearing, grazing, fodder production and collection, feeding, medication and slaughtering. The other activities, such as grazing in Ada’a Liben and housing and fodder collection in Alaba, are shared. In Dale and Atsbi-Wemberta, women are involved in most of the activities either through taking sole or shared responsibility, except for slaughtering in all PLWs and housing in Dale.

Table 1. Gender division of labour in dairy production

Activities	Atsbi-Wemberta			Ada’a Liben			Alaba			Dale		
	W	M	share	W	M	share	W	M	share	W	M	share
Breeding												
Rearing												
Housing												
Hygiene												
Grazing, tethering												
Fodder production												
Fodder collection												
Collecting dung												
Feeding												
Watering												
Medication												
Milking												
Making butter												
Slaughtering												
Storing												
Marketing												
Day-to-day management												

Site specific task allocations vary from the distribution presented in Table 1. In Golo Ertu of Ada’a Liben women are responsible for breeding, rearing and housing, and medication. Similarly in Ulegeba Kukke and Andegna Teffo of Alaba, medication is a shared activity, as well as day-to-day management at the latter *kebele*. In Kelisha Emini and Hayelom of Atsbi-

Wemberta, men are responsible for breeding, rearing, and medication. In Hantee of Dale women are also responsible for housing. Poor households do not own dairy cows.

Butter is produced mainly for market only in Atsbi-Wemberta and Ada’a Liben, where more than 40% of the production is sold. In Dale and Alaba most of the milk is used in the home. In all PLWs women control the income from butter sales and milk production, except in Ada’a Liben. Here control varies by site, with men controlling the income in Gobesay, women in Golo Ertu and sharing it in Dire Arerti.

Cattle

Rearing cattle is a male dominated enterprise, where men do most of the activities. Site specific variations in which activities are shared, include milking and hay making in Tumet of Metema, hay making in Kidest Hana of Fogera, milking and storing in Direqallu of Miesso, fodder collection in Odaqeneni and Harconcha of Miesso. Similarly, in Ada’a Liben, breeding, hygiene, feeding, and day-to-day management are shared activities in Golo Ertu and housing, hygiene and processing in Gobesay.

Table 2. Gender division of labour in cattle production

Activities	Alamata (Cattle and camels)			Metema (Cattle)			Fogera (Cattle)			Miesso (Cattle and camels)			Ada’a Liben (Cattle)		
	W	M	share	W	M	share	W	M	share	W	M	share	W	M	share
Breeding		■			■			■			■			■	
Rearing			■			■			■						■
Housing		■				■			■					■	
Hygiene		■				■			■					■	
Grazing, tethering		■				■			■					■	
Fodder production		■				■			■					■	
Fodder collection			■			■			■					■	
Hay making						■			■					■	
Collecting dung			■			■			■					■	
Feeding		■				■			■				■		■
Watering						■			■					■	
Medication		■				■			■					■	
Milking			■			■			■					■	
Making butter	■					■			■					■	
Slaughtering		■				■			■					■	
Processing/value adding	■					■			■					■	
Storing	■					■			■					■	
Marketing		■				■			■					■	
Day-to-day management			■			■			■					■	

While the rich and middle wealth households of Tumet hire labour for grazing and cleaning out the barns, poor households in several PLWs do not keep cattle.

Cattle are kept mainly for market in Alamata, Metema, and Mieso whereas they are sold occasionally in Fogera and Ada'a Liben. In all PLWs, men control the income from cattle, with a very few exceptions such as Kidest Hana and Alem-ber of Fogera where the income is controlled jointly between men and women.

Small ruminants

Sheep and goats are male-dominated enterprises in Alamata, Metema, Fogera and Bure but are shared in Atsbi-Wemberta and Goma. Unusually, women dominate the activities in Mieso. Site-specific differences include men's responsibility for breeding, rearing and housing in Hayelom and for housing in Golgol Naele, both in Atsbi-Wemberta. In addition, men are responsible for fodder production and women for collecting dung in Gebrekidan, Atsbi-Wemberta. Similarly in Fetam Sentom of Bure, rearing and grazing are exclusively the responsibilities of women while they share the workload for feeding, watering and day-to-day management. In Wendigi, Bure, feeding and watering are also shared. In Zalema of Bure men are responsible for fodder collection and day-to-day management. The rich and the middle wealth households of Tumet in Metema use hired labour for grazing and cleaning the barn, as well as for cattle management.

Sheep and goats are raised and fattened mainly for sale in all PLWs and the income is controlled by men in all PLWs, except in Fogera where it is shared. Unusually, the rich households of Zalema in Bure consumed most of the produce at home. Poor households in Genji Elbu of Goma, in Alem-ber of Fogera and Harconcha and Odaqeneni of Mieso do not have any small ruminants.

Skin and hides

Skin and hides are considered as a commodity only in Atsbi-Wemberta. It is male-dominated and men are responsible for slaughtering, hygiene, processing and storing (Table 4). They are assisted by their wives in stretching and salting the hides, and in day-to-day management. Skins and hides are mainly processed for the market and men control the benefits.

Table 3. Gender division of labour in small ruminant production

Activities	Atsbi-Wemberta (Sheep and goats)		Alamata (Sheep)		Metema (Goats)		Fogera (Sheep and goats)		Bure (Sheep and goats)		Mieso (Sheep and goats)		Goma (Sheep)	
	W	M	W	M	W	M	W	M	W	M	W	M	W	M
Breeding														
Rearing														
Housing														
Hygiene														
Grazing, tethering														
Fodder production														
Fodder collection														
Collecting dung														
Feeding														
Watering														
Medication														
Milking														
Making butter														
Slaughtering														
Processing/value adding														
Storing														
Marketing														
Day-to-day management														

Table 4. Gender division of labour in skin and hides production

Activities	Atsbi-Wemberta (Skins and hides)		
	W	M	share
Stretching			
Salting			
Hygiene			
Slaughtering			
Processing/value adding			
Storing			
Marketing			
Day-to-day management			

Poultry

Poultry is a women-dominated commodity in Atsbi-Wemberta, Fogera and Ada’a Liben where they are responsible for all activities except slaughtering (Table 5). Site-specific differences include Gebrekidan of Atsbi-Wemberta where women are assisted by their husbands in all activities whereas in Zalema and Wendigi of Bure housing and day-to-day management are women’s activities as well as feeding in Wendigi. In Genji Elbu of Goma, women are responsible for breeding, men for medication and they share egg collection.

Chicken are reared for market in all PLWs, especially in Bure where more than 80% of the produce is sold. Unusually in the rich and middle wealth households of Kelisha Emini of Atsbi-Wemberta and the rich households of Ada’a Liben, at least half of the chicken reared are consumed at home.

Women control the income from the sales of eggs and chicken in all PLWs except Bure and Alaba where the proceeds are shared. There are some site-specific and wealth based differences. The income is shared in the poor households of Genji Elbu and Limu Sapa of Goma, and in the rich and middle wealth households of Alaba, whereas men control the income in poor households in Alaba.

Table 5. Gender division of labour in poultry production

Activities	Atsbi-Wemberta		Fogera		Bure		Ada		Goma		Alaba	
	W	M	W	M	W	M	W	M	W	M	W	M
Breeding												
Rearing												
Housing												
Hygiene												
Grazing, tethering												
Fodder production												
Fodder collection												
Collecting dung												
Feeding												
Watering												
Medication												
Milking												
Making butter												
Egg collecting												
Slaughtering												
Processing/value adding												
Storing												
Marketing												
Day-to-day management												

Apiculture

Apiculture is a male dominated enterprise in most PLWs, except Ada’a Liben where women play relatively significant roles in most activities except breeding and rearing (Table 6). Site-specific differences in Atsbi-Wemberta include women having sole responsibility for making hives in Gebrekidan, and for harvesting and storage in Kelisha-Emini and Gogol Naele. In Bure, day-to-day management is the sole responsibility of men in Fetam Sentom and Zalema, as well as rearing in Zalema, while women also have a sole responsibility for hygiene and storage in Fetam Sentom. Similarly in Goma, men are solely responsible for hygiene and day-to-day management in Genji Elbu whereas women are responsible for storing honey in Limu Sapa.

Table 6. Gender division of labour in apiculture production

Activities	Atsbi-Wemberta			Bure			Ada			Goma			Alaba		
	W	M	share	W	M	share	W	M	share	W	M	share	W	M	share
Breeding															
Rearing															
Housing															
Hygiene															
Feed production															
Beehives construction															
Feeding															
Watering															
Medication															
Honey harvesting															
Honey extraction															
Processing/value adding															
Storing															
Marketing															
Day-to-day management															

Honey is produced mainly for market, with more than 80% of the produce sold, in all PLWs. Men control the income except in Gogol Naele in Atsbi-Wemberta where the benefit is shared. However, the poor households in Genji Elbu and the rich households do not keep bees in Limu Sapa, both in Goma.



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