



## **Improving Productivity & Market Success of Ethiopian Farmers**

### **Fifth Progress Report (October 2006 – March 2007)**



Canadian International  
Development Agency

Agence canadienne de  
développement international



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Federal Democratic Republic of Ethiopia  
MINISTRY OF AGRICULTURE AND  
RURAL DEVELOPMENT

## **List of Abbreviations**

ACE	Auditor General Capacity Enhancement
AHI	African Highland Initiative
ATVET	Agricultural Technical Vocational Education and Training College
ASSP	Agricultural Sector Support Project
BoARD	Bureau of Agriculture and Rural Development (at regional level)
BOAM	Business Organization and their Access to Markets
CA	Contribution Arrangement
CAD	Canadian Dollar
CBAS	Capacity Building Agricultural Sector
CBI	Centre for the Promotion of Imports from Developing Countries
CBO	Community-Based Organizations
CEAA	Canadian Environment Assessment Act
CGIAR	Consultative Groups on International Agricultural Research
CIAT	Centro Internacional de Agricultura Tropical
CIDA	Canadian International Development Agency
CIMMYT	International Maize and Wheat Improvement Centre
CIP	International Potato Centre (Peru)
CPPSLM	Country partnership program for sustainable land management
DA	Development Agent
DDG	Deputy Director General
DG	Director General
DVM	Doctor of Veterinary medicine
ECCO	Ethiopia-Canada Cooperation Office
ECEX	Ethiopian Commodity Exchange
EDRI	Ethiopian Development and Research Institute
EEPA	Ethiopian Export Promotion Agency
EIAR	Ethiopian Institute for Agricultural Research (formerly EARO)
EPA	Environmental Protection Agency
ESSP	Ethiopian Strategy Support Program
FA	Field Assistant
FTC	Farmer Training Center
GoE	Government of Ethiopia
HIV	Human Immune-Deficiency Virus
IARC	International Agricultural Research Center (not limited to CGIAR)
ICIPE	International Centre of Insect Physiology and Ecology
ICRAF	World Agroforestry Centre
IFPRI	International Food Policy Research Institute
IIDP	Integrated Institution Development Program for Ethiopia
ILRI	International Livestock Research Institute
IPE	International Panel of Experts
IPMS	Improving Productivity and Market Success
ISNAR	International Service for National Agricultural Research
IWMI	International Water Management Institute

KM	Knowledge Management
LoA	Letter of Agreement
M & E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoARD	Ministry of Agriculture and Rural Development (Ethiopia)
MoFED	Ministry of Finance and Economic Development (Ethiopia)
MoU	Memorandum of Understanding
NAIS	National Agricultural Information System
NAIRC	National Agricultural Information Resource Centre
NALC	National Advisory and Learning Committee
NGO	Non-Governmental Organization
PADEP	Peasant Agricultural Development Programme
PADETES	Participatory Demonstration and Training Extension System
PI	Performance Indicators
PIC	Project Implementation Committee
PIP	Project Implementation Plan
PLW	Pilot Learning Woreda (Previously PLS)
PM&E	Participatory Monitoring and Evaluation
PMF	Performance Measurement Framework
PRA	Participatory Rural Appraisal
PSC	Project Steering Committee
R&D	Research and Development
RALC	Regional Advisory and Learning Committees
RARI	Regional Agricultural Research Institute (Ethiopia)
RBM	Result Based Management
RCBP	Rural Capacity Building Project
RDAs	Research and Development Assistants
RDOs	Research and Development Officers
SNNPR	Southern Nation Nationalities and People's Region
SNV	Netherlands Development Organization
T&V	Training and Visit
TOT	Training of Trainers
TVET	Technical and Vocational Education and Training College
TAMSA	Tigray Agricultural Marketing Support Agency
USAID	United States Agency for International Development
VPN	Virtual Private Network
WALC	Woreda Advisory and Learning Committee
WHIST	Water Harvesting Institutional Strengthening Tigray
WB	WorldBank

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## Executive summary

During this reporting period, the ninth Pilot Learning Woreda (PLW), Goma, was initiated. Recruitment for Bure was delayed, but has now been completed and the project will start operations in April.

In **knowledge management**, the project transferred the hardware and software for the National Agricultural Information Resource Center (NAIRC) to the main building of the MoARD in Kasanchis. IPMS and MoARD IT staff have completed the installation of an enterprise e- mail system. The development of the content management that will power the proposed Ethiopian Agriculture Portal (EAP) has also been completed and is now a part of the upgraded MoARD data center. Organizing the staff of the Ministry to contribute content to the agricultural portal will be the main target in the coming six months.

All Woreda Knowledge Centers are now equipped with computers and internet connections as well as one TV set and a DVD player per center. Each center also has acquired CDs and publications relevant for the development of market-oriented agriculture, including HIV/AIDS and gender fact sheets and idea sheets. The utilization of the material and facilities is being monitored to learn lessons for possible improvements and scaling out.

In the past six months the project continued to facilitate non-IT based knowledge sharing between partners through various means. At the Woreda level, field days, study tours and workshops and seminars were organized for Woreda Advisory and Learning Committee (WALC) members. Commodity platforms for jointly addressing common issues among stakeholders in the development of specific commodities were established and/or strengthened in several PLWs. Detailed follow up of these events is planned so as to study the effectiveness and impact of these interventions.

At the regional level, the Regional Bureau of Agricultural and Rural Development in SNNPRS in collaboration with IPMS successfully organized a technology exhibition and symposium on market-oriented agricultural development. Displaying farmer innovations constituted an important component of the exhibition. In Tigray Region, the BoARD adopted the technology/symposium concept that was introduced the previous year with the help of IPMS and the bureau funded and organized the same event at the regional level and several woreda levels this year. IPMS cosponsored the technology exhibition held at Atsbi PLW. In Atsbi PLW, all the 16 PAs also organized exhibition of farmer innovations. The concept will also be tested at the zonal level.

The development of the **capacity** of the individual actors for agricultural development continued, especially the capacity of MSc students to develop and implement research based on a demand-driven agenda. A total of 15 students started their MSc research during this reporting period, bringing the total number of students conducting MSc research in support of the IPMS program to 33. Six more proposals are under preparation. In the reporting period four students defended their theses. Considerable effort was also placed on developing the capacity of the national and regional research partners in developing research proposals for the interventions taking place in the PLWs. Integration of HIV/AIDS and gender in the activities of the project and Woredas was boosted through a series of action planning and mainstreaming workshops. Technical skills training on various topics took place in the

Woredas for public sector staff, farmers and small-scale input producers. Some of the training programs targeted women and landless youth, in other training programs both husbands and wives were targeted. Training included apiculture, fattening, animal health, repair and maintenance of irrigation equipment, fruit tree and nursery development. The Woredas were encouraged to integrate HIV/AIDS awareness in each of the capacity development events. To improve learning by the Regional and Woreda Advisory and Learning Committees, joint RALC/WALC meetings and field visits were held for each Region and PLW.

The participatory development of selected marketable commodities in the eight PLWs continued with production, natural resource management, input supply and marketing interventions. Particular attention was paid to the development of livestock and irrigated agriculture, since the introduction of most rain-fed crop interventions took place during the previous reporting period (April – September) coinciding with the rainy season. Emphasis was on introduction of short-term fattening of large and small ruminants using improved technologies for fodder utilization, housing, and veterinary support. IPMS credit was used to establish some of the production and input supply interventions including credit for fattening, apiculture development, input supply shops, irrigation pump operators, paravet enterprises. To improve marketing of the commodities, the Woreda and village-level agricultural staff with the help of the project established linkages with potential market outlets and started providing price information.

Research aimed at developing **recommendations** for scaling out the technology, organizational and institutional interventions increased considerably in the past six months. Several studies by partner institutions, MSc students and project staff were completed including studies on water use in a number of PLWs, and marketing studies. The results of these studies are being used in the design of interventions in the PLWs. A considerable effort has also been made to increase the participation of the Ethiopian research organizations in the studies. Some 10 proposals were developed with ARARI in support of commodity development in Fogera and Metema. Five proposals are under discussion with SARI for Alaba and Dale. One study has been initiated with TARI for Atsbi while others are under discussion and three proposals are under discussion with OARI. The knowledge generated through the studies is increasing and will be synthesized in the coming years to generate lessons on production, natural resource management, input supply and marketing of commodities.

The project also increased its **promotional** activities including the production of three working papers and a documentary video on the fattening innovation in Metema.

During the past six months, the project steering committee met twice to review progress and discuss the next annual plan. To increase regional ownership, it was proposed that its membership would be enlarged to include regional representatives. The chairman of the IPMS board subsequently requested the Regions to appoint the RALC chairpersons to become members of the steering committee. A draft program of work and budget was prepared and presented to the steering committee. The final version will be presented to the Board in May. The project's Results Based Management (RBM) consultant assisted in refining the project's RBM and the performance management Framework. Monitoring of outputs in the PLWs has started.

# **1 Knowledge management**

## **1.1 Completed, on-going and planned activities and outputs**

The expected outcome of the project knowledge management component is to have a functional and gender-sensitive agricultural knowledge management system interconnected and utilized at all levels, highlighting innovations and appropriate technologies. The modality for operationalizing this on the ground involves on assessment of knowledge gaps, identifying and securing resources to narrow the identified knowledge gaps, and facilitating methods, approaches, and processes to share knowledge acquired during implementation or lessons-learned from IPMS and/or other experiences.

### **1.1.1 Assessing current state of knowledge**

This is a continuous process where the project staff in collaboration with the Woreda offices of Agriculture & Rural Development in the respective Woredas engage to identify the knowledge input needed to develop the priority commodities. What has been identified as the current state and needs is further addressed in subsequent knowledge management and/or capacity building activities.

Interventions are taken based on the results of such assessments. The project has taken important steps in this reporting period where all assessments are done with active (often leading) participation of the Woreda Offices of Agriculture & Rural Development (WoARD). This approach will help ensure sustainability and institutionalization of efforts found to be effective. Following are examples of undertakings in current state assessment of knowledge in and around the priority commodities:

- In Atsbi and Alamata PLWs, knowledge in modern beekeeping management such as the selection of hives, colony rearing, and management practices that reduce migration of bee colonies is assessed as being very limited.
- Knowledge gaps about improved pulse varieties, pests and agronomic management is routinely observed among the PLW farmers, For example, faba bean diseases are not identified and the possible control measures are unknown. Knowledge about land preparation for chickpea planting and optimal planting time is limited.
- Needs were identified for training in motor pump operation and maintenance in both Atsbi and Metema PLWs.
- In Atsbi PLW knowledge and experience on rainwater harvesting, water utilization (bee and livestock) and forage development among farmers, DAs and experts need to be strengthened.
- In Atsbi, Metema, Fogera PLWs, knowledge on vegetable seed sources, seedling and transplanting management, on-farm water, nutrient and pest management as well as

- post harvest handling is still limited.
- Knowledge of forage development under spatially variable spots of the PLW appeared to be limited at best in Atsbi, Alamata, Fogera, Ada'a, and Meisso.
- In Ada'a PLW, the benefits of mainstreaming of gender issues in commodity development as well as awareness in possible relationships between commodity development and HIV/AIDS is not well understood. IPMS in collaboration with Woreda OoARD provided a training of trainers session on these topics to the staff of extension supervisors, Woreda experts, health extension workers, Woreda Women's Affairs Office and Woreda HIV/AIDS Prevention Coordination Office staff.
- In Fogera PLW, knowledge in appropriate varieties of rice was limited in some communities before it was addressed by the project in collaboration with the OoARD
- There is a need for training in utilization of documentation tools such as digital cameras, computers, and associated software by Woreda staff that are mandated to do such tasks.
- In Metema Woreda, there was limited knowledge in livestock fattening and the price differential of fattened livestock compared to selling right out of the herd.
- Fogera Woreda assessments reveal needs in training and capacity building to develop commodities such as onion, tomato, rice, dairy, and safflower.

### **1.1.2 Assembling, capturing and synthesizing knowledge for use by each PLW**

This activity focuses on narrowing the knowledge gaps as a result of assessments done (see above) as well as those identified as key the capacity and commodity development activities of the project by identifying and securing such knowledge assets.

- The project has continued to collect documents about production, input supply, marketing, capacity building, research, and policy on the priority commodities. Often such documents have been coming from publications from ILRI and sister organizations in the CGIAR, the Ethiopian Institute of Agricultural Research (EIAR), the Regional Agricultural Research Institutes (RARIs) and manuals and proceedings that were developed for capacity building training at various venues. The information is captured and included in the EAP. Several Woreda Knowledge Centers have added to their collections as they come across materials they deem important to their Woreda.
- The Ethiopian Agriculture Portal developed by IPMS and which was recently moved to the MoARD will be an important repository of a significant set of such materials. The project has started uploading content to the portal and a lot needs to be done and this is hoped to be accomplished by creating a "content managers" group within MoARD, Regional BoARD, EIAR, RARIs and hopefully from the CGIAR centers.

Other activities in this area include:

- Training manuals on cattle fattening and straw treatment were prepared by Ada'a OoARD and the Debre Zeit branch of the Ethiopian Institute of Agricultural Research staff. These manuals were distributed to 105 trainees who came from six peasant associations and to six development agents. These manuals were also given out to private sector individuals that work with micro-finance institutes in Debre Zeit.
- IWMI finalized the draft training modules on different aspects of water management. These modules will be reviewed in the next half year and be published for wide distribution in Ethiopia



- The source material on innovative extension prepared by IPMS/IFPRI was updated, edited and is ready for publication in the next half year
- The training modules on innovation system research prepared by IPMS/IFPRI were reviewed, refined and edited and are ready for publication in the next half year
- Several CDs, books, journals and other materials were secured for each of the PLW knowledge center. CD-based training materials were used during training sessions on cattle fattening operation. CD-based material on fattening and forage development were also distributed to private companies involved in these operations. For example in Metema PLW the WKC has secured books on crop production (7), crop protection (7), seed science (9), vegetable production (1), forage production (1), dairy production (1), poultry (1), economics (4), agricultural marketing (1), agribusiness (1) and 8 other general agriculture books. It also has CDs on urea treatment for improved forage, tropical forage, and a CD-based encyclopedia. Manuals in the center include irrigation water use manual, horticulture crop development manual, conservation tillage manual, seed treatment leaflet, and various production leaflets. Copies of beekeeping manual were placed in Atsbi PLW knowledge center.
- In January 2007, an orientation session was provided on crop assessment methodologies and questionnaire design methodologies for crop assessment to all development agents in Ada'a Woreda. All the development agents participated in field data collection during crop assessment survey in their respective DA post. This helped DAs to better understand the farming conditions, opportunities and challenges of extension service, technology adoption, crop production and marketing in their DA post.
- The human resource development in and around the WKC is continually upgraded; recently Woreda staff in various PLWs were trained on Internet application and productivity (Microsoft Office) software usage.

### **1.1.3 Processes and mechanisms for enhanced knowledge sharing**

Knowledge sharing processes that have shown to be effective in the last two years include technology exhibitions, farmer-to-farmer knowledge exchange (both indigenous and IPMS facilitate) within and across Woredas, formal training programs conducted under the project's capacity building component, and the sharing of knowledge via facilitated evaluation and meetings to draw and distill lessons-learned in project implementation. An attempt is being made by various PLWs to promote the concept of communities of practice where voluntary interest groups around a common theme (interest) get together to share experiences and devise common strategies to address common issue. Although some PLWs show promising results from such efforts the overall achievement in this area has been somewhat limited.

On the other hand agricultural technology exhibitions have been embraced by several Regions as effective and relative quick means of knowledge sharing. As a result the Tigray Region held its 2<sup>nd</sup> annual Regional agricultural exhibition as well as several Woreda-level exhibitions in this reporting period. The SNNPRS held its 1<sup>st</sup> agricultural exhibition in November and the two PLWs in the Amhara Region (Metema & Fogera) both had agricultural exhibitions at different times in the reporting period.

The project's website is updated frequently as a means to share project activities with stakeholders in Ethiopia and elsewhere. The project newsletter is used as a means to share experiences in short brief articles about this.

Knowledge sharing activities held at Pilot Learning Woreda's include:

- Field visits were organized for RALC and WALC members in all of the PLWs both as knowledge/experience sharing as well as monitoring exercises. Valuable lessons were drawn and constructive interactions were held during the visits. Many of the field visits also coincided with monitoring and evaluation sessions that were held with RALC & WALC members during the period.
- All development agents in Ada'a participated in a briefing on alternative extension service delivery.
- Woreda development agents in Ada'a attended CD presentation on natural resource management, cattle fattening, and HIV/AIDS and urban agriculture.
- Farmers, partners and WALC members of Ada shared their experience with respective groups in Alamata, Meiso, Dale and Alaba. All the above visited the Ada'a Dairy Cooperative Union, Genesis Farm, Jerusalem Children and Community Development, Yerer Farmers Union, a private fruit nursery, private bulls service providers, transitional beehives, and the project's intervention sites on vegetable, fruit and dairy commodities. Discussion sessions were organized among the visiting WALCs and Ada'a WALC to share the lesson learned on approaches, processes, and impacts of their respective interventions.
- Farmers Field Day was organized by Ada'a OoARD, IPMS and Yerer Farmers Union. Five farmers were selected from each peasant association. All development agents and extension staff participated in the event. Farmers exchanged views and visited the fields of successful farmers – including irrigated backyards for horticulture production, apiculture, dairy, cereal production, and area enclosure interventions. They also visited natural conservation activities carried out by Ada'a Office of Agriculture & Rural Development. Outstanding farmers and development agents were awarded certificates of recognition and some agricultural inputs.

#### **1.1.4 National Agricultural Information Resources Center**

The development of the Ethiopian Agriculture Portal (EAP) reached an important milestone I in this reporting period in that the IPMS project upgraded the MoARD datacenter hardware and software platform – including the transfer of the agricultural portal. The system is currently in final testing phase of connectivity issues (including access to the e-mail system as well as the agriculture portal from the Internet). The e-mail communication will immediately improve the communication capacity of all computer users at MoARD that are connected to the MoARD network. Even staff members that do not have computers on their desk can now have a MoARD e-mail accounts that can be accessed via web browsers from any Internet connected computer. This improvement in the Ministry's communication capacity can in turn help improve efficiency in the Ministry's service delivery mechanisms.

On the other hand, the Ethiopian Agriculture Portal will be the foundation for ICT-based knowledge management efforts at the Ministry. Relevant, timely, and accurate agricultural content will be the key that will add real value to the system just deployed. The project will work closely with the various departments in the Ministry to support the identification, synthesis, harmonization, and dissemination of content via the agriculture portal. Preliminary experience exchange session was held with the Livestock & Fisheries department of the Ministry and the initial feedback we received that the newly deployed system will have broad support from the rank and file in the Ministry. A sustained support from all stakeholders

including higher level policy makers will be critical to the long-term success of this initiative and the project will make concerted effort to make that happen.

### **1.1.5 Support the establishment of ICT networks and infrastructure**

Noteworthy activities that happened around establishment of ICT networks and infrastructure in this period include:

- Deployment of e-mail system, web servers, database servers, and the supporting data center infrastructure at MoARD.
- Each of the Knowledge Centers was also connected to a dial-up Internet service in this reporting period. The project will support each Woreda with Internet usage charges limited to Birr 200 per Woreda per month. This support will be provided for 18 months from the start of the service for each Woreda after which it is expected that the Woreda offices will fund the service from their own budgets. The project hopes to leverage the WoredaNet infrastructure deployed by the government. However, it was felt important to have Internet connections in the Woredas until connections to the WoredaNet are realized.
- Observations from IPMS RDOs and HQ staff indicate that video based training programs are very effective. To take maximum advantage of this medium, the project has placed one TV and one DVD player in all the Woreda Knowledge Centers.

Together these investments will help by making access to agricultural knowledge easier. While the ICT infrastructure listed above address the agricultural service providers at MoARD and the respective WoARD in each PLW, these intermediaries are important actors in making agricultural extension successful. Therefore, it is hoped that the farmers and pastoralists of Ethiopia will be an indirect beneficiaries of these efforts.

At the Federal level, significant ICT support has been given the MoARD in the process of the data center upgrade. Specifically, as part of the deployment of the agriculture portal, the project has put in a database server, a web server, software firewall, an automated enterprise anti-virus system, and an automated systems update mechanism at the Ministry headquarters. This will help in lot in ensuring the integrity and reliability of the ICT platforms deployed at the Ministry.

## ***1.2 Analysis of knowledge management component***

Knowledge management activities in the project have been progressing steadily. It is fair to say that the project has been able to narrow its focus into areas that will have the most significant impact in and around knowledge management. In addition to farmer-to-farmer knowledge sharing (both facilitated and informal) the project is focusing on leveraging Woreda Knowledge Centers, the NAIRC and the Ethiopian Agriculture Portal, agricultural technology exhibitions, and communities of practice (in some PLWs) as the main tools to develop a sustainable knowledge management regime in the PLWs and MoARD. Although it is obvious that most of the project stakeholders value knowledge as an important asset that need to be managed well, it is early to say if knowledge management will get the attention and discipline it deserves. The project will continue to work to support efforts to make this a reality.

## **2 Developing innovation capacity**

The expected outcome of the project's innovation capacity development component is to have a strengthened innovation capacity of farmers, pastoralists, community-based and private sector organizations, and agriculture and natural resource management public organizations to support the development of small-holder, market-oriented agricultural production systems.

### ***2.1 Completed, on-going and planned activities and outputs***

#### **2.1.1 Capacity development agricultural educational/training institutes**

Two lecturers from Alage ATVET have started their MSc thesis research in the project PLWs. The project had regular contact with the local universities on the MSc thesis co-supervised by IPMS staff.

#### **2.1.2 Building capacity public sector partners**

##### ***MSc/BSc education***

IPMS staff continued developing and reviewing MSc thesis proposals and supervising the students on research topics relevant for the development of the interventions in the PLWs. During this reporting period, three IPMS and one IWMI co-supervised students completed their theses research. Some of the students who are sponsored by IPMS for their tuition completed their second year education and are amongst the students starting their research. An overview of the students and their thesis research at various stages of development is provided in **Annex 1**.

##### ***Innovation, HIV/AIDS and gender***

Gender and HIV/AIDS ideas sheets for mainstreaming the issues into IPMS and OoARD activities were developed, translated into local languages and shared with actors in the PLWs. The idea sheets are being printed in the form of booklets for wider distribution to FTCs and Woreda Knowledge Centers. Gender and HIV/AIDS planning and monitoring checklists were also prepared and discussed in PLWs.

The HIV/AIDS fact sheets developed for all PLWs were translated into local languages and distributed widely. These fact sheets were highly appreciated by Woreda level partners since this created access to reliable and accurate Woreda specific information which could be disseminated widely. The HIV/AIDS Fact sheet for Metema and Ada'a have been developed into a poster format.

The IPMS Gender and HIV/AIDS action plan workshops were organized in all the eight PLWs during November 2006-Jan 2007. These were organized in close collaboration with the PLW partners including, the OoARD, Woreda HAPCO, Woreda Women Affairs Offices, involved communities, staff of governmental and non governmental organizations, CBOs and community associations (youth, women, PLWHA). The purpose of the gender and HIV/AIDS Action Plan workshops were as follows:

- to increase understanding of gender and HIV/AIDS issues specific to each PLW among IPMS partners and other actors;
- to review existing project activities and amend/add as necessary to ensure equity of opportunity for women and men to participate in IPMS activities;

- to review existing project activities and amend/add as necessary to reduce risk of HIV infection and vulnerability to AIDS impacts through IPMS activities; and
- to develop the capacity of *Woreda* advisory and learning committee and other actors to integrate gender and HIV/AIDS into work programmes.
- to initiate networking of GoE and NGO partners in each PLW involved in addressing gender and HIV issues.

As an output of these action plan preparation workshops, each PLW identified the major gender and HIV/AIDS issues and priority areas to be focused on and understood. The occasion also created the opportunity for different Woreda level development actors (GO, NGO, CBO) to forge linkages and collaborative ties. The experiences shared across different actors also created the opportunity to broadly observe the institutional landscape in the respective PLWs. Co-planning, experience sharing, networking and collaboration across sector offices are at the core of the agenda. The forum also created the opportunity for IPMS, Woreda level working partners and stakeholders to road map the future tasks and work responsibilities. It also highlighted the need for all actors to concretise specific gender and HIV/AIDS issues and to put in place the proper work plan, monitoring and evaluation mechanisms.

The action planning workshops were followed by half-a-day mainstreaming workplan meetings in all eight PLWs. This enabled review of the action plan documents prepared in the action planning workshops. Practically mainstreaming gender and HIV/AIDS was new to all of the PLWs. In most of the PLWs, staff from the key partner organizations was not very familiar with key concepts related to gender and HIV/AIDS issues. The gender commodity sheets, HIV/AIDS Fact sheets, Implication of gender and HIV/AIDS mainstreaming for IPMS project etc. partially helped in creating this understanding. A gender and HIV/AIDS mainstreaming plan based on specific tasks identified by key partners was prepared for each PLW. The finalized plan was aimed to be integrated into the Woreda OoARD annual plan in each PLW.

In majority of the PLWs the workplans were successfully prepared and integrated into the Woreda annual plans. The women affairs, Woreda HAPCO, associations and HIV clubs gave their input to be considered in the annual plan of the OoARD. A number of lessons emerged and were shared among stakeholders. As the practice of mainstreaming of gender and HIV/AIDS in their annual plan is new for all the PLWs, issues such as staff capacity, budget, work coordination, institutional goodwill to implement the plan etc. were persistent issues raised by participants. Variations in terms of capacity, institutional experience, political will at higher echelons of the Woreda staff, prior experience of collaboration across sector offices were observed.

To sustain the mainstreaming process, strong monitoring and follow up, close collaboration and responsibility sharing between IPMS and OoARD is needed. The IPMS team at PLW level needs to take extra care not to over look the follow up during the actual implementation phase of the mainstreamed plans. Good practices, emerging issues, lessons, challenges and opportunities need to be recorded and shared across all PLWs. As stipulated in the work plans of PLWs, IPMS needs to use the gender and HIV/AIDS mainstreaming monitoring sessions to be held quarterly by the respective WALCs.

The other activity carried in relation to gender and HIV/AIDS is the institutional linkage for resource sharing at federal level, the translation of IEC materials into vernaculars for

fulfilling FTC and Woreda knowledge centers. So far, 16 IEC materials both in English and Amharic are collected and some of them have been distributed to PLWS. An overview of the awareness/capacity development activities is shown in **Annex 2**.

### **Skills development public sector staff**

#### GIS capacity building assessment

IPMS has planned to provide basic GIS training for Woredas, Zonal and Regional bureau of agriculture. It has also planned to provide focused GIS for market-oriented agriculture training for institution that already have GIS capacity such as the regional agricultural research institutions. Initial assessment is finalised for Amhara and Oromiya Regions and Tigray and SNNP's will follow in the coming weeks. Based on this assessment, IPMS can define the level and the number of trainees. A rapid assessment is jointly conducted at the Woredas and Regional level and plans to procure GIS equipment & software is underway.

#### Capacity development EARS

In the past months the team worked intensively with the regional research institutions to develop proposals in support of the development of and monitoring of action research in the PLWs. Meetings were held with the regional research institutions and linkages were made to start the process, including visits to the PLWs during the RALC/WALC meetings. Draft proposals were then developed by all four Regions, which were reviewed and discussed by project staff, which provided feedback through a continuous process of interaction with the RARI staff to ensure that research was in support of, or focused on the actions in the PLWs/Regions. As reported in the previous progress report, training in project proposal writing was provided to TARI staff in early October.

Discussions have started with the EIAR to develop proposals for PLWs for which their centers can provide location specific support as well as for cross site comparison of results.

In the next year, specific emphasis will be put on developing the skills of scientists from the different research centers in documenting outputs, outcomes and processes.

#### Capacity development OoARD staff

An overview of the capacity development activities in the PLWs in support of the development of the priority commodities is provided in Annex 2. Training included field visits and study tours and is usually combined with farmer training.

### **2.1.3 Capacity development farmers and private sector partners**

Each of the PLWs continued its capacity development of skills for farmers and private sector partners. An overview of the training is provided in **Annex 2**. Training included field visits, study tours combined with theoretical training. Since most rain-fed crops had already been planted in the previous rainy season, capacity building efforts during this period were focused on developing the capacity on production and input supply for livestock and irrigated fruit and vegetables including para-vet and community AI/health service training.

### **2.1.4 Partner linkages and learning mechanisms**

#### ***RALCs***

### Joint RALC/WALC meetings and field visits to PLWs

To increase ownership of the project by the stakeholders, the project proposed to structure the monitoring and learning by the RALC and WALC (see steering committee meeting) through joint bi-annual meetings and field visits to the each PLW in the Region. The first set of such visits were held during Jan-Feb 2007 with the participation of IPMS HQ staff. The teams visited and reviewed on-going activities to learn lessons and plans for the following year were discussed. These exercises resulted in charting directions for future work and identifying some action points. They also served to increase the understanding of the project concepts by the RALC and WALC members. This was also necessary since there is a frequent turnover of staff especially in the offices of agriculture and rural development.

### Regular RALC activities

Besides the joint RALC/WALC meetings described above, the following activities were undertaken by the RALCs in the different Regions.

The RALC in **Tigray** has been regularly monitoring and evaluating the progress of the project. The M&E meetings were planned quarterly but this was not strictly followed. The RALC believes that scaling out of successful innovation and best internal practices are crucially important to the Region. The relationship among IPMS, BoARD and others was exemplary and most partners meet often informally and work collaboratively. The strengths, weaknesses and opportunities of commodity development in both PLWs were evaluated and it was revealed that in both PLWs, there was a lack of due attention to water harvesting and utilization techniques which are critically important for the development of market oriented commodities. There is also a strong need to link producers with market partners. The experiences of linking producers with traders/consumers are still lacking. It was emphasized that the plans should reorganize and link with the Woreda strategic and annual plans. Research has to support the development efforts in both PLWs. Zonal chief administrators of Southern and Eastern Tigray, private sectors such as Dejenna Endowment will be members of the RALC. The Regional government is developing a plan to transform the Raya-Alamata valley into a Special Economic Zone and therefore, IPMS may play a supporting role in this.

Besides the advisory role, the Tigray RALC also organized some seminars to disseminate project ideas to a wider audience including a presentation by project staff on extension and innovation (see **Annex 2**). The RALC members were also involved in the preparation of the symposium and technology exhibition which was organized by the BoARD.

In **Amhara** Region, RALC members took part in previously mentioned RALC/WALC meetings and field visits to Fogera and Metama Woreda. No other meetings were organized; however the project had frequent contacts with individual RALC members. The head of the BoARD is presently exploring the possibility to delegate the responsibility of chairing the RALC to a member of the BOARD.

The **Oromiya**, RALC members also took part in the joint RALC/WALC visit to Mieso and Ada'a Woredas. The RALC sent a representative for the introduction of the program in Goma Woreda. Regular contact is maintained with the RALC chair, who is also actively monitoring developments in the PLWs. Plans are being developed to host a series of seminars for a wider audience. Since Mieso is administratively handled by the Oromiya Pastoral Commission, a member of the Commission has become a member of the RALC. The member took part in the joint RALC/WALC meetings and field visits.

The RALC in **SNNPRS** met to initiate the Technology Exhibition, for which a special committee was formed. Following the joint RALC/WALC meetings field visits to Dale and Alaba, the RALC met in February with the new Chair (Head of the BoARD). The previous RALC had been weakened due to movement of members from the Region and reorganization within the government structure that moved people from their previous position and responsibilities. The lack of commitment by members and multiple responsibilities and schedules compounded this. The following recommendations were agreed upon to strengthen the RALC:

- The RALC agreed to replace most of the previous members with decision makers in their offices. The previous RALC was composed of more of technical people (not decision makers) and was unable at times to execute activities effectively.
- That the RALC should play a more active role in the future by:
  - ✓ Making full commitment to the purpose of the RALC and developing the wider advisory and learning mission entrusted to the committee
  - ✓ Deliberating in regular meetings
  - ✓ Using the RALC as a means of learning through visits with in and outside the Region, Inviting scholars and distinguished speakers share their rich experience plus interacting with the other RALCs.
  - ✓ RALC will meet four times in a year in the months of September/October (Meskerem), December/January (Tahisas), April/May (Megabit) and July/august (Hamle). The meeting will be held on the first Friday at the end of the third month in the Ethiopian calendar.

## **WALCs**

### Membership

The role of the zones increased since the inception of the project and Woreda and Regional staff suggested having zonal representatives in the WALCs to increase ownership of the project at that level and also enhance opportunities for scaling out. This was effected in the past six months but requires official follow up to ensure sustainability of their participation.

To increase ownership of the EARS in the learning structures, the project also reemphasized the need for participation of research center directors in the WALCs of the nearby Woredas. This was effected in the past six months but requires official follow up to ensure sustainability of their participation.

### WALC activities

The WALCs in the various PLWs met and undertook study tours to obtain ideas for the projects. Following the joint RALC/WALC meetings, WALCs started planning their activities for the following year, including enhanced monitoring and evaluation activities.

### **Platforms**

Apiculture groups in two PAs in Alaba continued the platform activities and are on the anvil of obtaining credit fund in the coming months for their operations. The group has formalized and upgraded to a primary apiculture cooperative in the Woreda.

Women sheep fattening groups were established in Alaba during the reporting period, which is seen as the first step in the creation of a platform in the PLW.



The goat marketing platform in Mieso did not have much activity during the reporting period due to goat market failure internationally.

The cattle fattening platform members in Alamata continued their interactions and discussions. Farmer visits were organized as part of the platform activities to the Abergele PLC site, to demonstrate the fattening practices. Feed supply arrangements by PLCs is being discussed.

### ***Synergy with other organizations***

CIDA continues to make significant investments in the programs and projects it supports in Ethiopia and the CIDA Ethiopia office has been promoting the value of synergy among the various programs and projects in the country with the aim of sharing knowledge and learning among projects.

Along this line, IPMS is actively trying to partner and collaborate with CIDA-sponsored as well as other relevant projects. During this reporting period IPMS continued sharing knowledge with the CIDA funded CHF project which is engaged in rural development in Bati district; the SWISHA project in Amhara Region during a meeting organized by CIDA. The newly initiated Rural Capacity Building Project (RCBP), funded by the World Bank and CIDA also has many areas which are similar to IPMS interests and activities especially in the areas of extension, promotion of participatory approaches to extension and development of Farmer Training Centers (FTCs). IPMS proposes to actively engage with this project in future to develop synergies for both the efforts.

Besides these CIDA funded project, IPMS also participates regularly in events organized by other donor funded projects, notably SNV and USAID funded market oriented projects. The knowledge management and monitoring and evaluation components of the project have started productive relationships with an African Development Bank-funded project at MoARD, called Agricultural Sector Support Program (ASSP) as well as in capacity building in gender mainstreaming. The project recently also had extensive discussions with a project under development that will be funded by the World Bank in Knowledge Management and spatial database (GIS) related activities. This project, which is currently called the *Sustainable Land Management* which will be part of a regional umbrella project that will be funded in a grant of Global Environmental Facility Trust Fund. The proposal on this project will specifically include recommendations to scale up the IPMS-developed agricultural portal in support of the five smaller regions not covered in the IPMS-project regions. In addition, the project has had discussions with the Rural Capacity Building Program project since the project's pre-launch days and it will now actively work to translate this into specific and practical collaboration on the ground.

## ***2.2 Analysis of the innovation system capacity development***

In general this component of the project is on course in terms of planned activities. Each of the PLWs continued its capacity development of skills for farmers and private sector partners. Theoretical training was combined with field visits and study tours. As part of enhancing the project institutionalization process, the WALCs in the PLWs have developed workplans for activities to be supported by IPMS and were integrated into the Woreda annual plans. These workplans also integrated inputs from women affairs and Woreda HAPCO offices. The WALCs and RALCs also developed their own program of work for the first time and included capacity development for members and regularly monitoring and evaluating the

progress of the project in their respective regions. In addition, inclusion of representatives of Zonal Offices of Agriculture and Rural Development in the WALCs and RALCs has provided opportunities for improved ownership of the project. The decision to include RALC chairs or representatives in the project steering committee has improved the planning process and created an increased sense of responsibility by the Regions.

In the past months, considerable progress has also been made with reorienting the EARS through intensive interaction over research proposals. The team worked intensively with the regional research institutions to develop proposals in support of the development of and monitoring of action research in the PLWs. Also good progress was made with mainstreaming gender and HIV/AIDS. Discussions have started with the EIAR to develop proposals for PLWs for which their centers can provide location specific support as well as for cross site comparison of results. Measurement of outputs is on-going at the moment and will be published in a separate report. Interactions with partners and observations in the field during the RALC/WALC meetings indicate that the project should continue its efforts to build the capacity of the public sector partners in order to bring about changes in behavior, attitudes and roles. An intensive capacity building program in participatory market oriented agricultural development is proposed for each of the PLWs in the proposed program of work

### **3 Participatory commodity development**

The expected outcome of the project's participatory commodity development component is the adoption of appropriate technologies, innovative input supply – output marketing, and financial services using participatory approaches in order to improve agricultural productivity and market success in the PLWs.

#### ***3.1 On-going, planned activities and output***

##### **3.1.1 PLW planning**

###### ***New PLWs – Goma and Bure***

The activities in Goma started on February 21<sup>st</sup> with an introduction at the zonal office by the project manager, a representative from the Oromiya Bureau of Agricultural development and the newly appointed Research and Development Officer. The following day an introduction was made in the Woreda Administration Office in particular for experts from the Woreda Office of Agriculture.

The RDO and Woreda staff have prepared an initial assessment of the potential marketable commodities. Consultation with communities, key stakeholders and farmers will take place in the next quarter followed by a stakeholder meeting. An official launching of the program will take place in April, 2007.

Recruitment for the RDO in Bure was not yet finalized and hence work has not started.

###### ***Existing PLWs***

After the RALC/WALC meetings, the WALCs and RALCs were requested to develop a detailed program of work for the coming year. This program is to be integrated in the overall program of work of the Woreda and Region. Six of the PLWS have completed their plans and the remaining ones are being prepared

### **3.1.2 Participatory market-oriented crop commodity development**

Some highlights on the production, natural resource management, input supply and marketing interventions for the major commodities are presented below.

Market access and profitable outlets of produce provide an important stimulus for market-oriented agricultural development. Market access and linkage of farmers with market actors is, therefore, an important focus of IPMS. Market linkages can be actual or referral. The former refers to linking farmers with market actors physically, while the latter refers to availing contact information. Following are the market-oriented crop commodity development activities of IPMS for the report period.

#### Cereals and Pulses

##### *Production, NRM interventions*

In Ada'a, crop assessment survey was conducted in the past six months. The data collection and analysis have been completed. A consultant has started the report writing. The output of the report will help identify future intervention. Generally, interventions in crop commodities are not active during the dry season.

In Atsbi, technical support on land preparation, supplemental watering and pest management practices is in progress for production of pulse crops.

In Dale, link has been created to involve Awassa Agricultural Research Center (AARC) to scale out soybean at the Woreda and the cooperatives level. There is a plan to involve 200 households to participate in this scheme.

In Alaba, bio-fertilizer demonstration will continue on soybean and haricot bean. In a workshop organized by the AARC to scale out the technology, the Woreda office and IPMS project have agreed to take part in the process.

##### *Input supply interventions*

In Atsbi, sources of true to type basic seed supply has been identified and secured. Farmer based seed production proposal is being developed in collaboration with ICARDA, WUR (Wageningen International), BoARD/OoARD, TARI and ESE.

In Alaba, IPMS has provided credit for the establishment of input supply shops at two sites.

##### *Marketing interventions*

In order to better meet consumer demands, standards and grades have an important role to play. Rice is a good example in this regard. In order to expand the choice to consumers, IPMS is intervening in the grading and standards of rice produce in the Fogera PLW. In line with this, IPMS designed and introduced three sieve sizes for grading. The use of different sieve sizes is expected to supply rice for the different consumer niches.

In the Alaba PLW, market information supply using billboard was started in the nearest market site, Guba Site. The commodities covered include wheat, tef and haricot beans. This market price intervention is a joint undertaking by LVIA (an Italian NGO), the OoARD and

IPMS. Two market information billboards are expected to be placed at Kulito and Besheno market sites soon.

In Ada'a, Ropack International, PLC has signed an agreement with Erer Farmers Union to export 15,000 -20, 000 quintals of Kabuli type chickpea, which is a continuation of last year's market linkage.

### Irrigated Vegetables and Fruits

#### *Production, NRM intervention*

In Ada'a, fruit commodity development started with a three-day practical training of 20 model farmers (2 female), 2 DAs (one from each PA) and one SMS (extension) at the Melkassa Agricultural Research Station in May, 2006. At the end of the training, each of these farmers were provided with seedlings of improved varieties (10 banana, 5 mango, 5 orange, 5 lemon, 20 Papaya and 5 avocado). The training also included aspects of vegetable production. The technologies/practices that have been adopted by the trained farmers are raising of fruit seedlings, grafting of fruit seedlings, backyard layout for fruits and management of fruits including pest control.

This knowledge has spread to neighboring farmers, who requested the OoARD to buy seedlings of improved varieties on their behalf (they paid Birr 13 for single improved varieties). The money was collected by DAs who passed it to the Woreda SMS. The purchase of the seedlings from Awash Farm and Arba Minch was then made by the OoARD with transport assistance by the IPMS project. A total of 5 trained and 15 untrained farmers bought improved varieties of fruits which include 101 mango, 72 avocado (*Fuerette, Hass and Pinkerton*), 97 orange (*Valencia*) and 66 cavendish banana (*giant and dwarf*). The fruits seedling have been planted and are under continuous monitoring and supervision by the Melkassa Agricultural Research Centre, the Woreda SMS, DAs and IPMS.

Two approaches were used to introduce improved vegetable production in Godino, i.e: i) study tour/practical training by commercial farmers in Ziway and ii) training at Melkassa Agricultural Research Center.

Farmers observed improved irrigation practices (furrow instead of flood) new planting methods and improved varieties for tomato. Some farmers took seeds of the new tomato variety with them and planted them in their fields. Some have introduced the new practices and started using the new varieties. Farmers who received training on fruit production at Melkassa also received training on vegetable production. These farmers have started introducing the new methods in their field.

Melkassa research staff have also started a (women) Farmer Research Group on onion production in Godino. The group members have their own plots and received training on each step in the production process. They have just completed onion seedling production and have transplanted in double rows with furrow irrigation. New technologies and practices adopted by farmers include raised seed bed instead of flat bed, row seed sowing instead of broadcasting and double row onion plating with furrow irrigation instead of flooding.

In Mieso, vegetable production/onion bulb and seed production, fruit seedling production

and seed collection techniques have been introduced. Demonstration of fruit seedling preparation and management has been undertaken and farmers and DAs have been provided with demonstration materials.

In Atsbi, technical support on pests and management practices for vegetable production in the field has been provided.

In Dale, three households have cultivated more than 3000 seedlings of avocado and mango. Grafting will be carried out soon. Planting materials of pineapple distributed to farmers in August 2006 have established well and grown up successfully. IPMS/Dale had made negotiations with BOAM and the regional cooperative promotion office for tissue culture seedlings to be distributed to farmers in Dale. Jima Agricultural Research Centre is planning to give BOAM about 10,000 tissue culture developed seedlings for the main rainy season.

In Metema, the project launched a scale out program for the fruit and vegetables in 5 kebeles (Tumate, Meka, Kumar, Gubie jajabit, Metema Yohans) with the use of video show. Moreover, credit funds to purchase motor pumps were arranged from the WOoARD through co-operatives. Currently, 6 motor pumps were distributed for farmers and more than 12 ha of land are cleared and ready for planting. Two varieties of watermelon (one from Holland and the other from Kenya) have been introduced and are under close observation and supervision.

#### *Input supply interventions*

In Fogera, onion seed production started over the last three years. So far the technology was not popular among the different partners and recognition was not given due to some complaints from BoARD. IPMS has been strongly supporting this technology development by training the producers, collection of a sample of planting materials (bulbs) for laboratory examination and transport support to collect planting materials. The samples were collected from (Saburie, Ziway, Shewarobit, Awash Arba and Nazareth) last year. Laboratory results confirmed that these planting materials were free from soil born disease and any suspected problem. Following these, 26 producers have been involved and a lot of progress has been made over the last six months. The BoARD, regional plant laboratory and OoARD have been involved in the follow up especially after RALC/WALC meeting took place in Woreta. Currently, seed production is in progress on 10 hectare of land and about 70% of the seed has been collected from the field and kept for drying in the producers' village. From our field supervision, some problems associated with post harvest management need attention.

In Ada'a, in order to ensure future supply of improved varieties of mango and avocado seedlings in Godino and Denkaka two farmer spontaneously offered to start a small-scale nursery in their locations. Staff from Melkassa Research station taught the farmers to raise rootstock in the nursery and grafting of the rootstock. Sale of grafted plants to interested farmers will start soon.

In a similar situation, 4 farmers have also started raising mango and avocado fruit seedlings in order to graft and sell these seedlings to fellow farmers in Alaba PLW. This will create a sustainable supply of fruit seedlings in the future. There are more than 2,500 fruit seedlings which will be ready for grafting.

Farmers who received/bought cavendish banana have started producing suckers. Farmers have been briefed about sucker management. More structured and intensive training on

banana sucker management will be given for all fruit producing farmers in Ada'a in the near future.

In Ada'a some of the farmers have started production of the *Adama Red* onion seeds. Some farmers have also started harvesting seed from the newly introduced tomato variety and started to expand to neighboring farmers. One farmer is interested in establishing an input supply shop.

In Mieso, the project has facilitated an agreement between farmers and the Office of Food Security for the purchase of carrot and hot pepper seed.

In Metema, vegetable seeds are available in private rural shop in Genda Woha town. This is the first time to see vegetable seed sales in Metema Woreda. Farmer-to-farmer banana sucker supply is in progress. A private seedling nursery has also been established in one location. Currently, 1,000 mango seeds are being raised in Tumate PA. However, there is a need to look for additional apple mango seedlings from elsewhere to satisfy the growing demand of farmers.

#### *Marketing interventions*

During peak production periods, onion producers in the PLWs are organized for collective marketing by bulking their produce. Moreover, cell phones are now increasingly used as means of acquiring marketing and price information. In Alamata PLW, farmers and cooperatives and their union were provided with contact information of onion buyers who are based in different towns of the region. More than 500 hectares of land was planted with onion during the last growing season. Fear of price collapse and lack of market was a serious concern of farmers. However, the union used the contact information to approach buyers and negotiate prices. Onion produce of more than 7 million Birr was sold at price almost twice the price that existed at the same time during the previous harvest period.

In order to promote marketing and consumption of tomato, processing of tomato and its use as juice has been one of the options identified by IPMS for intervention in Fogera. In line with this, IPMS in collaboration with Adet Research Centre (one of the research centers of the Amhara Agricultural Research Institute (ARARI)) demonstrated the processing of tomato and production of tomato juice to cafés and staff and student lounges of the Bahir Dar University. Demonstration was done for four days. IPMS staff are following up the interventions for monitoring and evaluation purposes. Similar demonstrations will be conducted at the town of Gondar.

In Metema the banana and papaya production is expanding and new markets are being explored. Papaya was popularized in the main towns and the market has expanded in the Woreda as well as to nearby towns in the Sudan (prices of fruits range between Birr 2 and 4). While the initial price for banana was Bir 7/kg, it is now Birr 4/kg, which is well above prices received elsewhere. A particular problem experienced in the marketing of banana is the ripening process, in particular for opening new markets in Gonder. Training of traders is planned in the next quarter to develop cold area ripening techniques.

#### Coffee

In Dale, a joint meeting of farmers, Woreda experts, DAs and IPMS was carried out at Ajawa PA regarding seed supply arrangement. Agreement has been reached that the role of the OoARD will be to facilitate linkages between farmers, farmers' cooperatives and the research centre. Farmers have agreed to buy their own seeds as long as they know the quality of seeds they are buying. The OoARD and IPMS will negotiate with Awada Coffee Research Sub-centre to organize a coffee field day where seedling raising farmers and representative of the community will visit the research station and make their own decision and make contractual arrangements.

### Cotton

In Metema the project facilitated seed delinting and facilitated linkage among farmers and private sector service provide who anufacture seed treating equipment in order to sustain the use of improved seed with seed treatment,

## **3.1.3 Participatory market oriented livestock commodity development**

### Cattle Fattening

#### *Production interventions*

In Ada'a, a cattle fattening program was initiated in six PAS with the help of the project's credit. Joint husband and wife training was provided on technologies/practices including selection and purchase of right type of animal for fattening, construction of shelter, use of stall feeding, veterinary drugs and concentrate feeds and urea treatment of teff straw. Discussions were held among farmers, the Erer Union and the WoARD to discuss the modalities for disbursing credit funds. Different options are tested and monitored.

In Mieso, urea treatment of maize and sorghum stovers has been demonstrated and is expanding. Manual stover chopper was demonstrated and livestock feed groups have been formed. Mineral lick blocks have been produced from locally available resources and demonstrated to farmers. Farmers have been provided with technical advice on backyard private forage nursery and development of area enclosures for feed resources.

In Metema, the project initiated a cattle fattening project. To start the ball rolling one PA (Gubay jajabit ) was selected to initiate the participatory fattening approach. A meeting was arranged on Nov 1, 2006 with the village chairperson, some farmers and staff from the office of agriculture and rural development to discuss the issue of cattle fattening opportunities in the village.

A number of issues such as feed resource collection and preservation, feeding system, input supply, technical support and linkage with exporters were raised in the meetings and an agreement was arrived on how to address the issues.

Farmers appreciated the project idea and express their willingness to start fattening. However, farmers were not confident that fattening will happen in their PA. This is because farmers were aware of previous attempts made by the Woreda Office of Agriculture and Rural Development extension desk to involve farmers in fattening activities and this repeatedly failed due to failure in maintaining promises regarding credits.

Finally, six farmers who attended the meeting promised to start feed collection, preservation and to construct animal house around their residence effective from the next day. At the end of the meeting, the administrator expressed that such participatory discussions should be continued in the near future and invited the project team to continue the discussion on cattle fattening with larger number of farmers.

One week later, the project team conducted a meeting with 47 farmers (1 female) and explained the project's approach towards the live animal commodity development. During the discussion, farmers indicated that commonly they sold their cattle whenever they needed cash. However there was no culture of cattle fattening before the sale of their animals. This is because most animals depended on an extensive grazing system. Crop residues, in particular the stover of sorghum were mostly left in the fields for grazing by the village animals. Animals furthermore suffered from parasitic diseases for which little support was available.

Capturing and analyzing this knowledge gap, the project team discussed about emerging market opportunity for fattened cattle, the opportunities for training on feed resource conservation and utilization, knowledge on fattening technology based on the use of concentrates (noug or sesame cake). Moreover, the project team promised to follow up on vaccine and disease treatment.

Many of the farmers were developing higher interest to start fattening provided there is credit available. The project team learned that past efforts of the Woreda to promote fattening failed due to lack of credit. Moreover, there was a need to create self-reliance and confidence among farmers to use their own resources.

Therefore, the project team explained that credit can be delivered gradually for farmers who are committed to start and run the fattening on their own resources and the credit fund can be used to fill the gaps in the process of fattening. At the end of the discussion, most participating farmers agreed with the idea and promised to start feed collection and constructing animal shelter.

Continuing the participatory knowledge based commodity development approach and follow up on the activities, it had been observed that 16 farmers (1 female) were collecting adequate animal feed and 33 oxen began to be fattened.

To facilitate the availability of the concentrate for these farmers, one potential village shop was contacted and informed about the initiation of cattle fattening in his village and the emerging market for noug cake and *frushka* (bran) for his business. Moreover, he was informed where he could procure the cake. The shopkeeper responded after he made his assessment for noug cake demand and traveled to Gonder and purchased 50 quintals. Observing the potential sales and demand of the concentrate another shop keeper traveled to Gonder and purchased another 50 quintals of noug cake and started the business. Currently, the concentrate is available locally and it is sold at Birr 1.60/kg.

The first group of sixteen farmers started fattening based on the straw collected from their fields and feeding daily rations of 2 kg of oil cake/per day/per animal. Farmers also feed sesame cake obtained from small-scale camel-operated sesame oil extraction in nearby villages.



The lessons-learned from this initial effort were that the process of bringing knowledge through involvement of local leaders and local groups and the input linkage proved to be a good engine for initiating development.

In the process farmers changed from a free-grazing system to a stall-feeding system based on sorghum stover and oil cake. To tackle disease problems, the farmers were linked with the district's veterinary services which provided vaccinations (free of charge) and tablets at cost of 1 tablet/1.5 birr.

In January 2007, some of the initial group of farmers sold three fattened oxen in local Market (Shinfa) at an increased price of birr 800/cattle. One month later the IPMS team and the Woreda vaccinators visited the village to provide vaccination service for stall-fed cattle. Taking this opportunity, another awareness creation event was organized in the village to share the experience. The meeting was informal and the discussion was made in the middle of *senbetie* after celebrating church ceremony.

In mid February the project linked cattle fatteners in Gubie with potential cattle exporters and many of the fattened cattle were sold with net profit ranging from 550-700 birr/cattle

Similar approaches were used to start cattle fattening practice in Aquashara Kebele and six farmers started cattle fattening without hesitation. This is because farmers in this kebele were aware of the experience of Gubie by their social networking. In the Kebele 22 oxen were under stall-feeding using concentrate and sorghum stover.

In mid March, the project linked cattle fatteners in this village with potential exporters. However, the cattle breed type in Aquashar was not attractive for export and was difficult to arrive in an agreement among partners. However, farmers sold their fattened cattle in local market (Meka) with an increased price ranging 450-600 birr/cattle.

Realizing the rapid pace of cattle fattening in the Woreda, the Woreda office of Agriculture arranged a credit fund for needy farmers found in two kebeles (Mender 6, 7, 8 and Kumar). The credit was supplied for 31 farmers and received 5000 birr/individual. Currently 66 cattle are under stall feeding using sorghum stover and concentrate. Unlike the Gubie and the Aquashara Kebeles, the input (concentrate) in these two kebeles is being supplied by the service co-operatives.

Currently, the fattening practice in Metema is expanding and two private investors started the practice in Kokit and Genda woha towns after they received a license from the Woreda trade office.

To accelerate and to fill the knowledge gap, IPMS started a training program on urea treatment practice. The training was conducted in Mender 6, 7, 8 Kebele and 25 Farmers all male, 3 male and 3 female DAs and 3 Woreda-level experts were trained on the subject. After the training, DAs supplied Urea to exercise the practice in their respective Kebeles.

In Fogera, discussions were made with credit users on management of fattening animals and the credit system in the presence of ACSI. Following that the business plan was prepared and approved by the credit institute (ACSI) and IPMS head office. After the credit was released in the last 2 weeks, a total of 6 beneficiaries started fattening program with more than 30 animals and more animals will be purchased in the next market days. All animals are kept

under stall-feeding. The type of feed they used is hay, rice straw and rice bran, leguminous straw and noug cake. Animals have been de-wormed once so far.

#### *Input supply intervention*

In Ada'a, farmers who are participating on cattle fattening have agreed to establish input supply committee in their respective PAs. Three farmers from each participating PA have been elected to purchase and distribute inputs (salt, concentrate, antihelminthes) to members collectively. When committees purchase inputs on behalf of farmers, costs shared between the participating farmers. In some PAs farmers decided to purchase all inputs individually.

In Atsbi, 6000 Napier grass cuttings were supplied to Hayelom PA irrigated sites and Adi Messanu gullies. Large hectares of land that has been put under area closure will be used as cut-and carry system of feeding. In additions, *Phalaris* seeds have been collected and splits produced for scaling out the technology into various PAs in the Woreda. Efforts are being made to purchase crossbred dairy cows from the ILRI Debre Zeit Station and others sources.

In Metema, encouraging results have been achieved in establishing private rural input suppliers for feed concentrates in areas where cattle fattening is underway. Service co-operatives have also started to supply concentrates to beneficiaries.

#### *Marketing interventions*

In Metema linkages were made with the farmers and a trader. This linkages has resulted in the sale of fattened cattle and increased prices (see production story). Market information was provided to cattle fatteners on selling points, prices, and potential buyers. Follow up is conducted to evaluate the performance of marketing groups in some PAs in Mieso PLW.

In Ada'a PLW, market information on fattened cattle was provided through the established Woreda level input supply committee.

In the Alamata PLW, the linkage between fattening group of farmers and the Abergele International Livestock Development Enterprise, a company established to process and export meat and live animals, is being strengthened. Fatteners are receiving inputs from the company for fattening purposes.

#### Breeding and/or fattening of sheep/goats

##### *Production Interventions*

In PLWs where sheep and goats are important commodities, a project proposal is being developed in an attempt to establish a production system whereby farmers (mainly women and youth) get involved in the breeding and/or fattening operations depending on their resource endowment. Farmers ideally could be divided into two groups. One group of farmers shall be encouraged to undertake breeding activities to ensure production of adequate number of lambs/kids for fattening. Training shall be provide on the selection, management, breeding and handling of young animals, with consideration on the resource based and the optimal reproductive cycle. Young animals shall be kept and managed until weaning and shall be sold out. Credit fund for this effort is under process. For marketing purposes, this group of farmers shall be linked with the second group charged with fattening of animals. Another group of farmers shall be targeted for the production of marketable animals. Weaned animals shall be purchased from the first group of farmers. Animals shall be managed with a

clear objective of producing animals for the market. This group of farmers shall be linked with local abattoirs and consumers.

In Alaba, demonstration of urea treatment continued in Galeto PA. Demonstration was done to 31 farmers (five females). Training on urea molasses block production was also conducted for three private animal feed suppliers in Kulito town. Farmers' based forage seed multiplication continued in 8 PAs. Although 54 farmers were targeted in 2006, data collected in early 2007 showed that only 42 farmers could multiply 3 of the 7 forages supplied from ILRI. Now, there is 334.5 Kg of forage with farmers, 73% of the forage being oats (*Avena sativa*).

The CAHWs (Community Animal Health Workers) have also started operation and are addressing animal health problems for sheep and goat producing communities in the PLW.

#### *Input supply interventions*

In Alaba, a credit fund transferred to Mencheno Union will be used to establish a rural forage seed shop. In Atsbi, sheep and goat fattening and breeding program is in progress and there was technical support on the application of knowledge gained during the previous trainings

#### *Marketing interventions*

In the Miesso PLW, market information on goats was collected, compiled and disseminated to producers. Farmers were also linked with the ELFORA Company, involved in live animals and meat export.

### Dairy

#### *Production interventions*

In Ada'a, the following technologies/practices were adopted by dairy farmers (details are found on a report of apprentice student from Jima University)

*Heat detection and breeding (AI, bull):* After the OoARD/IPMS intervention, most farmers have given emphasis on controlled breeding. The systems of breeding used by the farmers are AI, bull and natural random meeting. The bull centers established with the support of IPMS have not yet started proving service.

*Use of concentrate:* The type of feed given to cows showed a good change after the IPMS intervention. Before the intervention only 25% of the trainees were using balanced feed supplement for their cows but after the training this number increased to 85%

*Urea straw treatment:* One farmer trained in straw treatment has reported change in milk production after feeding his cows' urea treated straw. Milk increased from 6-8 l/day to 10 -12 l/day for crossbred cows. Milk production for local cows doubled from 2 l/day to 4 l/day.

*Change in work division:* Before the training only 10% of the trainees equal division of work between husband and wife but after the training this percentage has increased to 50%.

In Mieso, urea treatment of stovers, manual stover chopper, introduction of Borana bulls, community bull station management systems, supplementary feeding of MUB, and facilitation of formation of feed groups have been undertaken.

In Dale, a plan to widen milk collection and processing has been finalized. Four collection centers and traditional milk collection processing villages have been identified and the marketing link will be initiated soon.

In Alaba, 6 CAHWs (Community Animal Health Workers) became operational in April 2007 in the woreda. The service of CAHWs will address one of the major bottlenecks to improve milk production as a priority commodity of the PLW.

In Fogera, common understanding about grazing land incursion by *Hygrophila auriculata* (Amicala-thorny weed) was identified as the major constraints for grazing land management and to dairy and beef productions. Agreement was made to conduct a one week Amicala eradication campaign in March 2007 through mass mobilizations especially in 6 highly infested PAs. Leaflets were produced and distributed to farmers in order to create awareness. Woreda mass media office collaborated to prepare documentary film during this campaign work. A total of 7,298 person days was involved in the one week campaign of which, 78% and 22% was male and female participants respectively. The community has now cleared 268.25 hectare of grazing land and is being prepared for various crop and fodder production.

#### *Input supply intervention*

In Ada'a, the two bull stations are under good condition. SMS and DAs are following up the condition of the animals. In an attempt to develop 'farmer artificial insemination technician – FAIT), two farmers selected from two PAs are attending AI technician training course at the Assela Cattle Improvement Station. After their graduation IPMS has a plan to demonstrate Private sector AI service in the rural area. IPMS has also a plan to equip these farmers with the necessary AI equipments through its credit scheme.

In Mieso, farmers who are involved in milk production were also exposed to urea treatment of stovers and manual stover chopper. The project also facilitated formation of feed groups in various PAs.

In Alaba, the project supported a forage shopkeeper in getting trade licence and tax registration at region level. IPMS facilitated credit for this innovative farmer to start forage seed supply shop. Efforts are underway to test the quality of forage seeds in a bid to certify the shop owner to produce forage seeds.

#### *Marketing interventions*

IPMS facilitated linkage of milk producers with the Ada'a Dairy Cooperative which is located at the capital town of the PLW. About 65 % of the farmers who received training on dairy production reported that although they were selling milk to the local market prior to IPMS intervention, they are now selling to the cooperative directly.

In Metema PLW, milk market information was collected, compiled and disseminated to farmers. In Alaba PLW, market information supply using billboard was initiated in the nearest market site, Guba Site. This effort is a joint effort between LVIA, the OoARD and IPMS. Two market information billboards are expected to be placed at Kulito and Besheno market sites soon. In the Alamata PLW, training on processing and marketing of dairy

products to dairy farmers and members of the dairy cooperative was given. Traditional milk and butter markets seem to work well and follow up is being made on the performance of the previously trained women who are involved in the business.

## Apiculture

### *Production interventions*

In Ada'a, the technologies/practices that have been adopted by beekeepers include introduction of modern and transitional beehives, transfer of bee colony, and modern apiary management. Some areas which needs our attention for the future production intervention include bee forage development and colony splitting and follow up and strengthening of the established bee keepers' cooperatives.

In Mieso, some activities undertaken include provision of bee forage species and assessment of potential honey production.

IPMS credit was made available for sixty landless youth farmers in four PAs to buy 3 modern beehives to produce honey in Atsbi. On the other hand, , house to house close supervision on the practical application of the previous beehive technical support has been undertaken in this PLW.

In Alaba, bee forage was multiplied by farmers in apiculture groups, and at present 270 gm of Lenorus (bee forage seed) is in the hands of farmers. Tree lucerne and Pahacelia could not be multiplied by farmers. In Metema, various bee forage materials have been provided to farmers.

Assessment of the potential of apiculture development in Dale was made by senior experts from the only Bee Research Centre in the country.

### *Input supply interventions*

In Ada'a, farmers have been connected with private beehive producers. In Atsbi, the supply of bee colonies and the use of box hive accessories have been strengthened. About 25 bee colony producers have been selected and are ready for training and application.

### *Marketing interventions*

In the Atsbi PLW in Tigray region, honey production is an important source of income to farmers. A company known as Dimma Beekeeping Development has been established to process, market and export honey from the region. IPMS in Atsbi linked honey producers with the company. The company has purchased some amount of honey from producers. Landless youth are also being organized by IPMS for honey production. In this regard, IPMS facilitated training to the youth in collaboration with the regional office for small scale enterprise and business development. In the Ada'a PLW, bee keepers and a cooperative were connected to honey market outlets.

In Alaba PLW, the apiculture group turned in to cooperative during the reporting period. It is the first apiculture cooperative in the woreda. Collection and dissemination of Market data using billboard started in the nearest market site, Guba Site. Market data dissemination is a joint effort of LVIA/OoARD/IPMS. Two billboards will also be placed at Kulito and Besheno market sites in the coming month.

### Poultry

In Dale, preliminary discussions were held with two women groups (saving and credit groups) and the groups plan to form pullet out growers to supply chickens and eggs from local breeds. Detail plan indicates that 40-60 farmers will receive up to 100 chickens on credit. There is also a plan to improve productivity of local poultry production by means of reducing mortality and improving productivity through better management.

### Skin & hides

Skins and hides from Atsbi PLW are of high quality and are demanded both by the domestic and international markets. In order to improve the marketing of hides and skins, training is being given on quality and handling of skins and hides. Close supervision and follow up of the trainees is also being done by IPMS staff in the PLW.

### Fisheries

Linkage facilitation of fisherman in Fogera with market actors was made during the reporting period. In this regard, linkages were facilitated between three fishermen and three private traders and marketing agency. Follow up is made in order to strengthen the linkage and improve the flow of information between producers and buyers.

## **3.1.4 Credit interventions**

The credit component of the project became active in the past six months. A start was made with identifying potential credit institutions which could partner with IPMS in developing innovative credit arrangements. The institutions which have been identified so far are summarized in the project management section.

In all agreements it is specified that the IPMS guarantee is 80% for default payments. Interest rates are determined by the lending institutions and vary between 7.5 and 12 %.

The following proposals have been developed and funded:

#### *Atsbi*

Apiculture development and queen rearing by landless youth groups – approved and funds transferred

Sheep breeding (by women groups) and fattening by landless youth groups – agreed

#### *Fogera*

Fattening large ruminants – approved and funds transferred

Development of small-scale lake fisheries groups – approved and funds transferred

#### *Ada'a*

Fattening of large ruminants – approved and funds transferred

Private water pump operators for vegetable production – approved and funds transferred

Apiculture development proposal – agreed

Sheep fattening project by women groups – under discussion

#### *Alaba*

Development cooperative input supply shops – approved and funds disbursed

Private forage seed shop and seed production – approved and disbursed

Equipping para vets – approved and disbursed.

### **3.2 Analysis of participatory commodity development**

There was a slight delay in starting the implementation in the 10<sup>th</sup> PLW due to staff recruitment problems. This has been solved. Activities in all PLW are at various stages of development and the highlights presented depict a picture of the value chain approach used in combination with participatory extension approaches. While impact can be observed in PAs where the interventions have started, impact at Woreda level is still limited and greater involvement of the OoARD staff for scaling out interventions in the Woreda will be the focus of attention for the coming year (also see capacity development). The outputs achieved in participatory commodity development are being collected and compiled at the moment and will be published in a separate report.

The introduction of credit in the PLWs was slower than expected since the identification of lending institutions and innovative financial products took considerable time. The project will use a local consultant to assist in the credit activity.

## **4 Development and promotion of strategies, policies and development options**

The expected outcome of this project component are developed, documented and promoted policy & technology options, and institutional innovations (from both research and lessons-learned) in order to enhance market-oriented agricultural development.

### **4.1 Completed, on-going and planned activities and outputs**

#### **4.1.1 Commodity research**

The commodity research focuses on outputs and outcomes in existing natural resource management, production input supply and marketing systems and/or resulting from interventions initiated by the project partners. Some of this research is combined with documentation of innovation processes which are reported in section 4.1.2.

#### ***Natural resource management, production and input supply***

##### Water

The project partners with MSc students and IWMI to study water related issues in the PLWs. The focus of this research so far is on studying existing situations with the aim of defining technology, organizational and institutional interventions. The following outputs/activities by IPMS staff and partner institutes are noted:

- Two students from Addis Ababa University supervised by IPMS staff defended their thesis on the impact of rainwater harvesting technologies in Atsbi and Alaba, respectively. One of these students graduated with an excellent thesis grade.
- One student, co-supervised by IWMI, defended his thesis successfully on operational analysis of the cascaded Wadecha – Belbela Reservoir system (A case in Ada’a Liben Woreda).

- A technical report entitled “Assessment of water resources and recommendation to improve water resources management in Ada’a Woreda” was submitted by IWMI.
- A technical report entitled “Addressing Irrigation Needs of Alamata Farmers: Options and Scope” was submitted by IWMI
- A new student supervised by IPMS staff, has started looking into institutions for irrigation water management in Atsbi and Ada’a.
- Another student (co-supervised by IWMI) has started his research on water use efficiency for horticultural crops.

#### Soil, flora and fauna

The project also uses MSc students and partner institutions, including ILRI themes to study soil and vegetation issues related to the PLWs. The following outputs/activities by IPMS staff and partner institutes are noted:

- The African Highlands Initiative (AHI) introduced a program aimed at disseminating natural resource management technologies in Dale and Alaba. A technical progress report on the process used and the initial outputs and proposed monitoring scheme was submitted.
- ILRI scientists completed a draft report on the status of the trypanosomiasis in Dale and Fogera Woreda.
- An MSc student is characterizing the rangeland resources and utilization practices for developing livestock feed in Metama (on-going)

#### Crop production

IPMS staff is monitoring the outputs and outcomes of production, input supply interventions for selected crop commodities (also see innovation process monitoring). Proposals have been developed to conduct this monitoring in partnership with regional research centers in the coming year. Besides the monitoring of interventions, the following outputs/activities by IPMS sponsored MSc students and partner institutes are noted:

- ICRISAT/EIAR completed a study on the chickpeas in Ada’a and published it in the IPMS working paper series.
- The coffee/fruit study conducted in Dale by ICRAF is reviewed by ILRI staff to convert it into a working paper.
- An MSc student is looking at the adoption of haricot bean packages in Alaba
- Preliminary GIS studies for scaling out of priority commodities in woredas have been conducted by IPMS staff including:
  - Potential areas for irrigated banana production in Metama”. This study identifies areas near rivers with adequate climatic, edaphic and topographic conditions for banana production.
  - “Suitable areas for selected commodity production in Ethiopia”. Agro-climatic suitability analysis using Eco-crop model to identify areas suitable for selected commodity production. Commodities include chickpea, sesame, faba-bean, common bean, rice (surrounding lake Tana), potato (initially for Alaba)
- An MSc student has started looking at the scaling up of rice production Fogera using GIS and RS techniques
- Proposals have been developed with ARARI to look at the further development of rice in Fogera and Metama, sorghum (Metama), chickpeas (Fogera), onion (Fogera)



- A proposal has been developed with SARI to look at the introduction of soyabean in Alaba and Dale
- Proposals for crop development research in Tigray and Oromiya are under discussion

### Livestock production

IPMS staff is monitoring the outputs and outcomes of interventions for selected livestock commodities (also see innovation process monitoring). Proposals have been developed to conduct this monitoring in partnership with regional research centers. Besides the monitoring of interventions, the following outputs/activities by IPMS staff, MSc students and partner institutes are noted:

#### *Dairy*

- For the development of the dairy commodity, MSc studies are taking place to look at dairy production/marketing systems in the different PLWs, including Fogera (completed), Mieso (on-going), Dale (on-going, part of the larger Dilla-Awassa milk shed) and Metama (on-going).
- An MSc student is looking at dairy extension and adoption of dairy packages in Fogera Woreda.
- A proposal has been developed with ARARI to look at production/marketing systems in the Bahr Dar milk shed to which Fogera contributes.
- A proposal has also been developed with SARI to look at production/marketing systems in the Soddo – Shashemene milk shed to which Alaba contributes.
- A proposal has been developed with ARARI to look at bull stations with the Fogera breeds.

#### *Meat (fattening of large and small ruminants)*

- In support of fattening of large and small ruminants MSc studies are taking place to look at meat production/marketing systems in Fogera (cattle-completed), Dale (goats - on-going), Alaba (sheep – on-going), Metama (cattle – on-going).
- An MSc student is looking at the adoption of small ruminant fattening packages by agro-pastoralists in Mieso
- Proposals are being prepared with regional research institutes to develop small ruminant breeding and fattening research programs in the PLWs in collaboration with ILRI.

#### *Livestock general (dairy, meat)*

- An MSc student is looking at the efficiency of livestock feed resource utilization and forage development in Alaba (on-going)
- A proposal has been developed with ARARI to look at removal of Amicale weeds from the grazing areas in Fogera.
- A proposal is being developed with SARI on feed resource utilization
- Six DVM students are undertaking their studies the major animal diseases in Atsbi, Alamata, Fogera, Metema, Mieso and Alaba PLWs.

#### *Apiculture (honey/wax)*

- SAPTECH has submitted a technical progress report on the apiculture development in Ada'a Woreda

- An MSc student is looking at the determinants of adoption of improved box hives in Atsbi District
- IPMS is providing GIS support to Holetta Research Center on “Spatial analysis methods applied to chalk brood disease occurrence and potential” and “Honey mapping: agro-ecology of major honey types of western Oromiya. Methodology, software and data is provided to the institute and expected to produce a “Honey Atlas” of Oromiya.
- A proposal has been developed with ARARI to develop and monitor queen rearing in Fogera

#### *Poultry*

- Two MSc students have started studies on local and improved poultry production and marketing systems in Dale and Fogera. Supervision takes place by ILRI theme 4 staff.
- A proposal is being developed with SARI on poultry production for Alaba

#### *Fish*

- A proposal has been prepared with ARARI to study the introduction of motorized lake fishing in Fogera

#### Marketing of crop and livestock products

Market research is conducted by IPMS staff, MSc students, international partners, and the markets research theme of ILRI. Most of the studies follow the value chain approach to analyze the opportunities and constraints to expanding and promoting the production and marketing of the selected commodities. This research attempts to identify technological, organizational and institutional interventions that could be implemented by IPMS in order to improve productivity and quality, and marketing of these commodities. Following are the marketing value chain and rapid market appraisal studies /activities outputs by IPMS, MSc and partner institutes

#### *Crops*

- MSc thesis on the **sesame** marketing chain in Fogera was completed and successfully defended
- MSc thesis on the **hot pepper** marketing chain in Alaba was completed and successfully defended
- The completed ICRISAT/EIAR working paper on **chickpeas** also includes a section on the potential for chickpea markets and a preliminary assessment of the market chain. The analysis of the detailed quantitative market chain study by ICRISAT/EIAR will be completed in the next reporting period.
- CIAT submitted its **haricot bean** marketing study report for Alaba and Dale. The report was reviewed and is expected to be published in the IPMS working paper series in the next reporting period.
- A final draft report on the **fruit** marketing systems for Dale and Tigray was submitted by ICRAF.
- An MSc student has started his research on the economics of seed and seedling multiplication in Dale, the Southern Region.
- An MSc student has started research on the **vegetable** (onion, shallot and tomato) marketing chain study in Fogera.
- TARI has started a marketing chain study on **vegetables** (onion, tomato, pepper, and cabbage,) in Atsbi.

- The MSc study on **cooperatives and coffee** marketing in Dale is considerably delayed but on-going.
- An MSc student has started on **cotton** marketing chain study in Metema.
- MSc thesis proposals are being developed for **teff and wheat** in Alaba and Ada, **vegetable** marketing in Alamata and **haricot bean** marketing in Alaba and Dale.

#### *Livestock*

- WorldFish/ARARI published their **fish** marketing study for Fogera in the IPMS working paper series.
- IPMS, ILRI and ILDP conducted a study on the cross border trade of live animals to the Sudan in support of the **fattening** interventions in Metama. The study was published in the IPMS working paper series.
- The rapid market appraisal studies conducted by IPMS staff on **live animal, hides and skins and honey** markets are being reviewed and will be published in the IPMS working paper series.
- An MSc student has started research on the **dairy** marketing chain study for the Awassa milk shed to which Dale contributes
- The on-going and planned **dairy** production/marketing milk shed studies for Fogera, Alaba and Dale also includes an appraisal of the dairy markets.
- The on-going MSc **poultry** production/marketing studies for Fogera and Dale also includes an appraisal of the poultry market
- A **feed** marketing Rapid Appraisal Study has been initiated by IPMS and ILRI Markets Theme staff with the help of a consultant. The research is aimed at generating general information on the feed and fodder marketing system in the four regional states of Ethiopia in which IPMS is operational. The research was started in March 2007. Data collection in three regional states is completed. First draft report is expected to be produced in June 2007.
- MSc thesis proposals are being developed for **small ruminants, cattle and camels** in Mieso, **honey** production in Atsbi, **small ruminants** in Atsbi and Alamata, Alaba and Dale.
- A GIS based study on road network generation for market access analysis has been initiated by IPMS. When finalized, the model can indicate transportation cost according to the production location and destined market of agricultural commodities and input supply items.
- A study proposal is being developed on the commercialization of smallholder agriculture in Ethiopia. This study is aimed at analyzing the processes, and factors affecting the commercialization process of subsistence smallholders in Ethiopia.

#### **4.1.2 Institutional process, tools and methods**

Some of the research related to innovation systems that has been in progress during the reporting period is as follows:

- Innovation process and outcome analysis of Community based veterinary service delivery tripartite control in Dale and Fogera by ILRI and IPMS staff
- Forage and feed resources development processes and outcomes in Alaba, Mieso, Atsbi, Alamata and, Ada lead by IPMS staff with the help of students and consultants.
- Livestock fattening innovation processes and outcome analysis in Metema, Mieso, Atsbi, Alamata and Ada lead by IPMS staff with the help of students.
- Innovation in dairy production and marketing in Ada by IPMS staff

- Onion input supply innovation in Fogera by IPMS staff
- Horticulture development in Metema, Ada, Dale and Alamata by IPMS staff and students
- Apiculture Innovation process and outcome analysis and documentation in Atsbi, Alaba and Ada by IPMS staff
- Effectiveness of extension trainings as part of Teff and Poultry packages in Alaba

These studies are designed to understand the processes involved in innovation (introduction and development) focusing on actors involved, their behaviors, their linkages and networks, knowledge and information flows, the socio-economic context, triggers and drivers for innovation and the learning processes. Mainly qualitative data is collected using participatory tools and supplemented by quantitative data wherever appropriate.

#### **4.1.3 Promotion of project strategies and recommendations**

Three more working papers were produced with the help of ILRI's information and publication unit:

Working paper 2: *Marketing systems for fish from Lake Tana, Ethiopia: Opportunities for improved marketing and livelihoods.* – WorldFish/ARARI

Working paper 3: *Analysis of production costs, market opportunities and competitiveness of Desi and Kabuli chickpeas in Ethiopia* – ICRISAT/EIAR

Working paper 4: *Analysis of the Ethio-Sudan cross-border cattle trade: The case of Amhara Regional State* – IMPS/ILRI

A monograph on “*From Farming systems to Agricultural Innovation Systems: Implications for Agricultural Research and Development*” was published by the Society for Farming Systems Research and Extension for East and Southern Africa in October 2006. This was co-authored by IPMS staff and IFPRI/ISNAR partners.

A documentary video entitled “*The Metama Fattening Innovation*” was produced by IPMS staff and a local film company.

A new poster was produced on ‘*Meat Commodity Development*’ and the general IPMS poster and brochure was updated to reflect the enhanced objectives and strategies.

Presentations on IPMS strategies, objectives were given during RALC/WALC meetings and in conferences, workshops, seminars organized by partner institutes.

#### **4.1.4 Environment, gender and HIV/AIDS**

The following research activities have been in progress in this area.

- Knowledge flows and extension for women farmers in Ada- proposal prepared and defended by MSC student
- Agricultural Information Networks of Farm Women and Role of Agricultural Extension in Dale by MSc student
- A preliminary study of knowledge networks of women in Ada’a was completed by IPMS staff

- Women's Land Use Rights and implications for market-oriented agriculture in Ada - proposal developed, defended and research started by MSC student (Addis Ababa University)
- House hold food security and women's pivotal role in particular reference to market oriented agricultural development in Dale- proposal developed, defended and research started by MSC student (Addis Ababa University)

The Working papers on gender and HIV/AIDS, based on the gender analysis conducted by IPMS in the PLWs and supplemented with information collected later through PLW workshops are nearing completion. The Gender working paper highlights the gender characteristics of rural populations, gender roles in crop and livestock enterprises, use of inputs and technologies, human capital dimensions, commercialization of smallholder production and opportunities for promoting gender equality. The HIV/AIDS Working paper highlights the stages of epidemic in the PLWs, sources of risks, hotspots and bridging populations, cultural norms and practices, market-related risks, Impacts and, opportunities for addressing HIV/AIDS through market-led growth strategies.

## ***4.2 Analysis of development and promotion of recommendations***

The research activities designed to develop recommendations are in line with the project planning. A gradual shift can be observed from research focusing on generating knowledge in support the project's interventions to research aimed at documenting outputs and outcomes from innovations which are evolving as a result of the project's partner' and own efforts. As planned the project also stepped up its efforts in promotional activities aimed at disseminating the project' results to a wider audience. Project publications based on the research conducted as well as documentary video were well received and this activity will be expanded in the coming year. The outputs not yet captured in this report are collected at the moment and will be compiled in a separate report.

## **5 Project Management**

### ***5.1 Recruitment of project staff***

Yirgalem Assegid, the Research & Development Officer for Fogera PLW resigned to pursue further studies in the United States. The recently recruited Gender Specialist, Ephrem Tesema resigned to pursue a PhD study. We wish both of them all the best and enjoyed their inputs in the project.

The following staff members were recruited during this reporting period:

- Research & Development Officer for Goma joined February 2007
- Research & Development Officer for Bure was recruited in February but will join the project in April
- ICT Solutions Officer joined October 2006
- Project Monitoring & Evaluation Assistant joined October 2006
- Project Monitoring & Evaluation Officer joined November 2006
- Drivers for Goma & Bure joined April 2007

### ***5.2 Consultants, international panel of experts, temporary staff***

Dr Jerry Rogers revised the project's PFM in collaboration with the newly recruited monitoring and evaluation staff.

Dr Lynn Mytelka, Science Council advisor ILRI, provided expert advice to the project to develop a strategy for innovation system, research in two separate missions.

Clare Bishop-Sambrook, the project's Gender & HIV/AIDS consultant worked with the project from March 20 – April 8.

## **5.3 Contracting research and development partners**

### **5.3.1 Research partners**

The project signed letter of agreements with regional research institutions for research proposals in support of the development of priority commodities in the selected PLWs as follows:

- Amhara Regional Research Institute (ARARI) for crop and livestock commodities in Metama and Fogera. (11)
- Tigray Agricultural Research Institute (TARI) for vegetable marketing in Atsbi (1)
- Southern Agricultural Research Institute for livestock extension delivery (1)

Several proposals are still under development/discussion for Tigray, SNNPR and proposals from the Oromiya Agricultural Research Institute (OARI) and the Ethiopian Institute for Agricultural Research (EIAR).

Proposals for partnerships with the CGIAR partners are at various stages of development. ICRISAT: Chickpea marketing value chain study (signed), innovation process documentation of chickpea development Ada'a (under discussion).

CIAT: Production of working paper on rapid assessment haricot bean market SNNPRS (signed), capacity development in participatory market oriented agricultural extension (under discussion), innovation process documentation of haricot bean production, input supply and marketing system (under discussion).

IWMI: Publication of training modules on water management, technical assistance and documentation of water intervention in Ada'a Woreda (under discussion).

WorldFish: Dried fish marketing study in Fogera, technical assistance for the development of lake and pond fisheries.

AHI: Publication of training materials on community based soil and water management

ILRI Capacity Strengthening (CaSt) Unit: development of training materials on innovation systems, participatory extension; development and delivery of training on participatory market oriented extension (under discussion).

ILRI themes: Technical assistance on innovation system development for trypanosomes control, poultry development.

The project through ILRI's CaSt Unit also signed 15 contracts with students, who are doing their MSc research with the project. Contracts were also signed with 11 attachment students.

### **5.3.2 Development partners**

Agreements for disbursements of credit were signed with the following lending institutions:

- Atsbi: Mahibere Bekur Multipurpose Cooperative ( 1 proposal)
- Alamata: Shewit Alamata Union (no proposals yet)
- Metama: ACSI (no proposals yet)
- Fogera: ACSI (2 proposals)
- Ada'a: Erer Farmers Cooperative Union (2 proposals)
- Mieso: not yet identified
- Alaba: Mencheno Union (3 proposals)
- Dale: not yet identified.

An agreement was also signed with the BoARD in Tigray for making an inventory of the innovations which have taken place.

Agreements will be signed with NGOs (FARM Africa and Agri-Service) for the development and delivery of training materials in participatory market-oriented extension.

### **5.4 Office establishment and equipment**

The IPMS office in Goma was established in February after the introduction of the RDO. The IPMS HQ office facilities were expanded and furniture was purchased to provide space for the students attached to the program, staff visiting from the PLWs as well as other project visitors who need to office space.

The following items were purchased during the year:

- Color printer
- 5 laptops to be used by the gender specialist, ICT solutions officer, project monitoring & evaluation officer, the RDOs for the 2 new PLWs
- Vehicles (pick-ups) for the 2 new PLWs
- Motorbikes for the 2 new PLWs
- Desktops for the 2 new PLWs (to be used by the RDAs)
- Digital cameras for the 2 new PLWs
- 4 printers – 2 for the new PLWs and 2 for the Woreda offices
- 10 DVDs & 10 TVs for the Woreda Knowledge Centers

### **5.5 Project planning, monitoring and evaluation**

The project team held a three day internal review and planning session at the ILRI Debre Zeit station from November 8 to 10.

The IPMS steering committee met for two days in Debre Zeit (January 11 and 12) to visit project interventions in Ada Woreda and to discuss the planning of the research and development activities for the next financial donor year (April 2007 - March 2008). To increase involvement and ownership of the Regional and Woreda level Advisory and

Learning Committees, a plan was presented and accepted by the Steering Committee to have RALC/WALC meetings and field visits in each of the Regions to learn lessons and discuss follow up research and development activities for the coming year. The Steering Committee also recommended enlarging membership by including a representative from each of the 4 project Regions, to increase ownership of the project activities at regional and at the Pilot Learning Woreda (PLW) level.

This program of work and budget was reviewed on March 27 by the steering committee, including the newly assigned regional representatives. Comments received are reviewed and incorporated in the final proposal to be presented to the IPMS Board.

The project's RBM consultant in close collaboration with the project's M&E staff revised the performance management framework (PMF). The revision included i) adjustments in the timing of the measurements of outputs and outcomes ii) fine tuning of the sources of information (emphasis on group interviews, key informants and published data) iii) coverage of the measurements in the PLW (sample of PAs which little or no interventions and sample of PAs with substantial interventions). Output monitoring and evaluation is underway and will be reported in the next reporting period.

## ***5.6 Project communication***

The project team developed a video on the Metema fattening innovation with the help of a professional film crew.

An overview of the various conferences, seminars and workshops attended by IPMS staff is attached in **Annex 3**.

Posters of the project were displayed in various events, including ILRI Board meeting in November and the ILRI APM.