



Improving Productivity & Market Success of Ethiopian Farmers

Project Implementation Plan

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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
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)
DA	Development Agent
DDG	Deputy Director General
DG	Director General
EARO	Ethiopian Agricultural Research Organization
ECCO	Ethiopia-Canada Cooperation Office
EDRI	Ethiopian Development and Research Institute
EEPA	Ethiopian Export Promotion Agency
ESSP	Ethiopian Strategy Support Program
FA	Field Assistant
FTCs	Farmer Training Centres
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

PLS	Pilot Learning Sites (ILRI term)
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
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
WALC	Woreda Advisory and Learning Committee
WB	World Bank

Executive Summary IPMS project

Improving Productivity & Market Success (IPMS) of Ethiopian Farmers is a five-year project funded by the Canadian International Development Agency (CIDA) and implemented by International Livestock Research Institute (ILRI) on behalf of the Ethiopian Ministry of Agriculture and Rural Development (MoARD).

The Government of Ethiopia has recently embarked upon exploring new knowledge from outside the country in order to accelerate its market-oriented agricultural development. These areas of new knowledge include technologies, biotechnological tools and products, institutional innovations and arrangements for extension, output marketing, input supply and rural finance. The International Livestock Research Institute (ILRI), as an international institution based in Ethiopia, has been selected to implement and facilitate access to these new knowledge through the IPMS project. ILRI has its own experiences and well equipped research facilities for livestock research to assist in livestock-oriented market development. ILRI being a member of the Consultative Group on International Agricultural Research (CGIAR) can engage the involvement and participation of scientists from these centers. It also has strong linkages with advanced research centers on biotechnology (eg. TIGER in the USA for genomics research). In addition, NEPAD's initiative on the Biosciences Eastern and Central Africa (BECA) facility, hosted at the ILRI Nairobi campus (funded by CIDA), shall also serve as a centre of excellence for the application of advanced science and biotechnology in agricultural development.

ILRI has recently reorganized its program structure to include innovations and markets. Other CGIAR centers are also increasingly developing experiences and knowledge in innovative institutional arrangements for extension and input/output marketing. Biotechnological applications can also help Ethiopia in the development of new marketing strategies for indigenous agricultural products. In support of these marketing strategies, the IPMS project shall serve as a vehicle for linking with genetics and genomics centers for the characterization of priority market-oriented commodities. It can also, in a limited way, build capacity of national research and development institutions and create platform to further transfer of technological and biotechnological tools and products to the benefits and development of Ethiopian agriculture.

To achieve market oriented agricultural development the MoARD requested that the project address the following specific objectives:

1. To develop a gender sensitive agricultural knowledge management system in the MoARD that will enable Ethiopian institutions, farmers and pastoralists to adopt appropriate technologies from research and development institutions based in Ethiopia and elsewhere;
2. To build and strengthen gender balanced existing public agricultural institutional capacity and foster institutional learning and change so that

new collaborative arrangements across sectors and levels are developed to better support the dissemination, use and impact of market oriented agricultural technologies and information;

3. To increase gender balanced capacity of farmers, pastoralists, community-based organizations, and private organizations to improve market oriented agricultural productivity and production, and to improve and sustain livelihoods;
4. Based on action oriented research generate gender sensitive policy and strategy recommendations on marketing, technology transfer, input and credit innovations for market oriented priority key crops, livestock & livestock products

In consultation with the federal and regional level authorities, the project choose 10 Pilot Learning Sites (PLS) for developing a community based market oriented agricultural program, i.e. 2 in Tigray: Atsbi and Alamata Districts, 3 in Amhara: Fogera, Metema and Wanberma, 3 in Oromiya: Mieso, Ada'a and Goma, and 2 in SNNPRS: Dale and Alaba (a map showing the locations is presented in section 4.3.1). In 4 of these PLS, research and development programs based on *priority commodities* within farming systems were developed in a participatory manner with the main stakeholders. Programs for four additional sites will be developed in the first half of 2005. Plans for the remaining two sites will be developed once some experience has been gained with managing and funding the activities in the first 8 sites. The selection of the commodities was based on the development priorities expressed by communities as well as the MoARD. The commodities selected so far include cereals (tef, wheat, rice), pulses (faba bean, chickpeas, haricot beans, field peas and soybean), oil crops (sesame, noug), fruits (temperate, tropical), vegetables (irrigated), cattle products (milk, butter, beef and skins), sheep and goats (live animals, hides), poultry (meat and eggs), apicultural products (honey and wax) and fish. These priority commodities will be reviewed in more detail with the village communities in the PLS during the implementation phase. Commodities which are "new" but have been identified by various experts as having a good development potential (e.g. bamboo and sericulture) will also be assessed in more detail during the implementation phase of the project.

Pilot learning site research and development programs will focus on these priority commodities. New and/or innovative approaches to production, natural resource management, technology transfer, input supply, credit, and output marketing will be introduced and adapted. Such innovations are guided by market "demands" and the capacity of the communities and its individual members to handle such innovations in a sustainable manner. Key to such development is to create the capacity of the rural communities, where farmers are "producing what they can market rather than trying to sell what they produce" quote from CIAT's ERI program. Many of these innovations have been developed by research and development partners in collaboration with the farming communities. The project will have a strategy which is aimed at mainstreaming gender and environmental concerns. A

strategy will also be developed to limit the effect of HIV/AIDS on agricultural development.

Emphasis will be put on strengthening or developing farmer-based seed and seedling supply system (linked to a cooperative and/or private sector outlet), private/cooperative bull stations and AI services, private/cooperative rural shops for the supply of veterinary drugs, farm equipment/implements and fertilizers and other innovative arrangements. This approach is in line with the Ethiopian government's privatization strategy.

The IPMS project will focus on grouping individual farmers to increase their negotiating power, agro-processing possibilities, and access to market information thereby increasing their potential for earning high income. The project will also assist in improving product quality, storage and processing. Linking of producer groups and small scale local traders with wholesale, agro-processing and export marketing parties through various forums will be part of the strategy.

At the PLS level, the program will be implemented by existing public and private institutions, including extension/advisory services, agricultural input/service suppliers, credit institutions, cooperatives and private traders. An important aspect of the project will be the opportunity for providing these institutions with new ideas and best practices from CG centres and other institutions outside of Ethiopia. The project's role in the PLS is to provide facilitate access to agricultural innovations – technologies, policies and process as well as strengthening the capacity of institutions to better serve farmers and communities. The project will furthermore facilitate the introduction of improved planting material through the appropriate channels and provide demonstration and training materials. Realizing the GoE keen interest in the use and application of biotechnology, the IPMS project will also serve as a vehicle to introduce biotechnological tools and products to help assess and improve the utilization of plant, animal and microbial genetic resources for the priority commodities in the PLS. A limited amount of credit funds for input supply and small scale marketing and innovative technologies will also be made available. Particular attention will be given to farmers and communities around newly established Farmers Training Centers (FTCs), located in the farming systems for which the market priorities are identified.

The lessons being learned in the PLS on technology uptake and institutional innovations will be documented and discussed in various fora including the FTCs, the annual performance review meetings and multi-institutional learning and advisory committees. These committees have been established at the District, Regional and National levels. The analysis of lessons learned in and across PLSs, together with the results of special studies will form the basis for adjusting the annual program of work. This also form the basis for recommendations on policies and strategies for rural development throughout the life of the project. These lessons may also be used as the basis for planning the scaling up and scaling out of what has been achieved in the project to other parts of the country – during and after the project. Due attention will be paid to the project's lessons learned and impact on the livelihood of men and women, HIV/AIDS and the environment.

The capacity building of farmers and private sector partners is an integral part of the community-based market-led development program in the PLS, and is aimed at building the capacity of the farmers and the private sector institutions for a market oriented development strategy. A special capacity building program for the agricultural staff in the PLS to facilitate such development has been developed and will be implemented during the life of the project. A learning approach will be adopted for farmers as well as agricultural staff to ensure that lessons learned are incorporated in the program. The program will not only support the development of the PLS programs, but also provide the MoARD with functional models for the newly established Farmer Training Centers, which are expected to become multi functional service centers in the future. Emphasis in such centers will be on knowledge exchange between the farmers and service providers, rather than the technology package approach. Such capacity building will also be linked to the newly established Agricultural Technical and Vocational Education and Training (TVET) Colleges, since they are producing the “future generation” of extension workers to be assigned to the FTCs. The project will furthermore, in a limited way, contribute to the increased human resource capacity of agricultural staff (in particular female staff) in fields relevant for the development of a community-based market oriented rural development. This will include, in a limited way, capacity building in the area of agricultural biotechnology. For this purpose, funds will be provided for BSc, MSc and PhD level training at local and universities abroad. Funds for study tours aimed at introducing innovative technology and institutional innovations to decision makers will also be made available. The project will also facilitate workshops and committee meetings linking the development institutions in the PLS to facilitate learning as well as facilitate linkages with the regional and federal level institutions.

The focus of the research and development efforts will be at the PLS or *Woreda* level. To foster this process, action research activities in communities within the selected *Woredas* will be supported through the government established Farmer Training Centres (FTC) and other local groups. The capacity of regional agricultural bureau and the MoARD to support *Woredas* will also be enhanced. One mechanism for this support will be through the MoARD's AgriNet and *WoredaNet* programs. These are nationwide information and communications technology infrastructure (ICT) capacity building initiatives. The project proposes to contribute by systematically capturing, storing and sharing knowledge on priority commodities and institutional innovations from different sources, including knowledge generated by national and international research and development organizations and indigenous knowledge. Special attention will also be given to the capturing, synthesizing and sharing of knowledge in the application of agricultural biotechnology. The project will also support MoARD in its establishment of a National Agricultural Information Resource Centre (NAIRC). Computerized access to electronic information at the PLS will also be facilitated. Non computerized forms of knowledge sharing such as radio programs, use of pamphlets, leaflets and posters as well as exhibitions will also be supported. To make the overall system functional, particular attention

will be paid to promoting improved culture of knowledge sharing between the stakeholders.

The project's research and technical assistance activities will be implemented by a national project team and the 10 PLS teams in collaboration with regional, national and international research and development partners. The national team is comprised of an internationally recruited project manager, a knowledge management expert, a technology expert, an innovative technology transfer specialist and a policy/market analyst. The Addis based team is, furthermore, comprised of a nationally recruited program assistant, a GIS expert and technician, two research assistants and a data analyst. Each PLS team consist of a research and development officer (RDO), a research assistant. Partner institutions have been identified for the initial 4 PLS based on program demand and on the comparative advantage of the various organizations. Detailed plans and budget will developed with the partners in the initial phase of the implementation, once the budgetary allocation in the PIP has been approved.

In summary, the project is geared to help and create an enabling environment where the Ethiopian government and Ethiopian farmers and pastoralists will be empowered to increase agricultural production and productivity in a market-oriented development approach.

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1 Project introduction and background

In Ethiopia, more than 80% of the estimated 71 million people (CSA, 2003) depend on agriculture for their livelihoods. The sector contributes close to 50% of the Gross Domestic Product of the country. However, average cereal yields are low, generally less than a ton per hectare. Livestock productivity is lower than most other countries in sub-Saharan Africa. The use of improved agricultural technologies is limited. As a result, average per capita income is estimated at USD 100 per annum, with about 45% of the rural population living on income below the poverty line of one USD per day. Many rural families suffer from chronic food insecurity and are extremely vulnerable during periodic drought. Inefficient and inappropriate use of soil, water and vegetation contribute to degradation of Ethiopia's natural resources.

The level and speed of economic development in Ethiopia is heavily influenced by sustained growth in agriculture. Sustained agricultural growth requires increased availability of technologies, farm inputs and services on the one hand, and sustained demand for the agricultural outputs on the other. These forward and backward linkages of agricultural production are captured in the concept of an agri-food chain, which can be seen as the institutional linkage between producers, processors, marketers and distributors, which are often separated by space and time. The agri-food chain is made up of several interconnected components. These components include the development and availability of farm inputs and technology, the agricultural production process, harvesting, storage, processing, marketing and distribution. Bringing integrated improvements in the components of the agri-food chain serves as a conceptual basis of this Project.

In June 2002, the then Ministry of Agriculture (MoA) convened a workshop on *Poverty Reduction through Transforming Smallholder Systems from Subsistence to Market-Oriented* at the Addis Ababa campus of the International Livestock Research Institute (ILRI). This workshop and follow-up discussions by MoA, ILRI and others determined that lack of access to existing scientific knowledge by farmers and extension/development agents had resulted in non-utilization of innovations already 'on the shelf' to improve rural livelihoods.

In January 2003, the Government of Ethiopia requested Canada to support its poverty-reduction efforts through a project to improve the productivity and market success of smallholder farmers. As part of this process, the Ethiopian Ministries of Finance and Economic Development (MoFED) and Agriculture (MoA) agreed that the best way to accelerate nationwide economic growth was i) to enable more farmers to participate in markets and ii) get more existing agricultural knowledge and technologies into the hands of Ethiopia's small-scale food producers. Simultaneously, the Government of Ethiopia (GoE) recognises that such a strategy has to take into consideration gender, HIV/AIDS and the environment. The latter is in line with the policies and strategies of the Canadian International Development Agency (CIDA).

Based on these general principles, a project proposal was prepared by ILRI and the Ministry of Agriculture and Rural Development (MoARD), and the Canadian International Development Agency (CIDA) signed a Contribution Arrangement (CA) with ILRI for this 5-year project on June 18, 2004.

Following the signing of the agreement, the project was officially launched on June 30 at the ILRI campus by the State Minister of Agriculture. This event was embedded into a technology exhibition (June 28 -29) and a project launching workshop (June 30 to July 2). In the technology exhibition, EARO, RARIs, IARCs, Regional Technology Multiplication Centers, NGO's and private sector displayed potential technologies and innovative input supply and marketing approaches. During this event strategic development plans for priority crop and livestock commodities prepared by the MoARD as well as the IPMS project concept and implementation principles were presented and discussed in working groups.

Based on these general guidelines, the project started with the formation of the Regional Advisory and Learning Committees (RALCs), and the selection of potential PLS in each of the four Regional States. This was followed by a national PLS selection meeting (on July 30) in which members of the project implementation committee and regional representatives and representatives of national and international centers (based in Addis) were present to finalize the selection of the PLS (see section 4.3.1 for details). The meeting was also used to discuss procedures for the development of programs for the PLS with the main institutional stakeholders and beneficiaries. Programs for four PLS (one for each Region) were then developed over a 2 week period each with the help of *Woreda* staff, members of the project implementation committee and regional and international partners (see section 4.3.1). At the end of each study period, a workshop was held with the major stakeholders including men and women farmers. These workshops were held from August 18-19 in Ada'a, from September 8-9 in Dalle, from September 28-29 in Atsbi and from October 1-2 in Fogera.

During the month of October, the project team was assisted by three consultants i.e. gender, HIV/AIDS (one consultant), environment and Result Based Management (RBM) who helped develop the project strategies for gender, HIV/AIDS, environment and the refinement of the project's LFA, RBM framework.

A three day consultation workshop on the work plan development for the four PLSs was held at ILRI Addis from October 19-21, 2004. Participants included members of the WALC, RALC, NALC and scientists from EARO, RARIs and the CGIAR centers. In this workshop, a synthesis of the work plans for the four PLSs in relation to the priority market-oriented commodities was presented and discussed. Moreover, issues relating to knowledge management and capacity building, institutional arrangements for input supply, rural finance and extension were presented. The consultants on RBM, environmental assessment and gender and HIV/AIDS also made presentation in their respective areas. CIAT and ICRAF representatives made presentations on innovative seed input supply systems and innovative

technologies (bamboo). Working groups were established for the four PLSs and the draft work plans were discussed in detail and enriched by the participants. During the early part of the project implementation phase, it will however be necessary to further refine the work plans based on more detailed discussions with focus groups around FTCs and refinement of the inputs to be provided by the project partners (see 4.3).

Throughout the planning phase, a number of one-on-one and group consultations were held with the members of the project implementation committee (the extension department, TVETs and FTC programmes coordination, ICT and knowledge management unit and the planning department) and representatives from the national and international research community. A special consultative meeting was held on October 18 to discuss knowledge management and ICT with some of the ministerial stakeholders including the Ministry of Capacity Building, the MoARD and the ESSP project. The progresses made and the draft development plans at the PLSs, Regional and Federal levels were also presented and discussed at the first Project Implementation Committee (PIC) meeting held on November 19, 2004.

2 Development context and rationale for the project

2.1 Rural development strategy – market orientation

2.1.1 Present policies and strategies

The overall development strategy of Ethiopia is based on the development of a strong free market economic system. Markets are expected to lead production, not the other way round as currently practiced (where farmers look for markets after they produce). Although current focus is given to agricultural development, due emphasis is also to be accorded to the non-agricultural rural economy, trade and industry.

In the development of the agricultural sector, producer subsidy is ruled out as an option. Agricultural growth is expected to follow labor-intensive agricultural production strategy, as opposed to capital intensive strategy. Technological interventions are envisioned to be agro-ecology based. As a long-term target, the strategy envisions the creation of educated farmer population, through primary education and the use of Farmer Training Centers (FTCs). As far as the source of agricultural technology is concerned, the strategy envisions that the major source will be adaptive research of existing technologies developed by the national and/or international research systems. The public, private and individual farmers are expected to be involved in this adaptive research.

The agricultural development strategy also envisions combining specialization and diversification. Areas are expected to focus on key specialization commodities, while at the same time produce multiple commodities. Voluntary and planned settlement programs that move households from highly populated and drought prone areas into sparsely populated high potential areas are considered as one means of facilitating the achievement of food security for these people.

The Ethiopian Rural Development Policies, Strategies and Instruments document clearly emphasizes that the development of Ethiopian Agriculture should be based on market-oriented production system. Although both the local and international markets are recognized, in the short term emphasis is put on developing the local market and in the longer term penetrating the international market. To be successful in competing in the international market, continuous improvement in production efficiency at farm level and quality of products is envisaged. As an integral part of this overall strategy, improving the efficiency of markets is underlined. In this regard, four areas are especially emphasized: establishing a system of labeling and standards, improving the provision of market information, expanding and strengthening cooperatives, and improving and strengthening the participation of private investors in agricultural marketing. The strategy also stipulates that rural banks be established and expanded to provide financial services to farmers.

An integral part of this market oriented agricultural development strategy is the development of water resources including water harvesting and strengthening of small and large scale irrigation schemes.

The development of rural infrastructure, especially roads and telecommunication, is expected to facilitate the development of market-oriented agriculture in the country. Construction of major roads that connect regions has been given top priority and is the responsibility of the federal system. Rural roads that connect to the main roads, and roads that connect districts with *kebeles/tabias* are expected to be constructed by regional governments.

In support of the market oriented strategy, the MoARD has embarked on developing a strategic plan for export market oriented crops (wheat, barley, tef, lentil, chickpea, faba and haricot beans, cotton, sesame, coffee and spices) and livestock (dairy, meat, poultry, apiculture, sericulture, fisheries, skins and hides) commodities. These general plans are used at Regional and *Woreda* levels to develop more detailed plans. (For details on some of the export potentials on the selected crop and livestock commodities see **Annex 1, part 1**).

Reflecting the importance attached to agricultural marketing, the Government has also embarked upon major institutional restructuring in order to strengthen agricultural production and marketing under the MoARD. Initiatives include the appointment of the State Minister for Agricultural Marketing and reorganization of marketing responsibilities within the regional bureaus. The GoE also established The Ethiopian Export Promotion Agency (EEPA), which is now a Department in the Ministry of Trade and Industry.

In addition to the various Federal organizations that are mandated with agricultural marketing support services; some regional states have established regional level agricultural marketing support agencies. The Tigray Regional State has established the Tigray Agricultural Marketing Support Agency (TAMSA), mandated to provide agricultural marketing support services to farmers including the provision of market information, identification

of potential export markets, and linking farmers with buyers. The Southern Regional State has also established the Export Products Development and Promotion Agency, mandated to identify important exportable commodities, facilitate improvement in production and quality, and link farmers and traders with export market.

In line with the market-oriented development strategy and the emphasis to improve the efficiency of the market system, several research programs on agricultural markets are also being undertaken in the country. The Ethiopian Agricultural Research Organization (EARO) is leading a national program of agricultural markets that includes both capacity building and research components. The International Food Policy Research Institute (IFPRI) is undertaking a research and knowledge management project to support the Ethiopian rural development strategy. This project, known as Ethiopian Strategy Support Program (ESSP), is partly funded by CIDA. Although this research project is not only about markets, it has substantial focus on market studies and improvements. Moreover, various donor agencies such as the United States Agency for International Development (USAID) and the Government of The Netherlands¹ are showing increasing interest in getting involved in the development of agricultural markets in Ethiopia.

2.1.2 Policy/strategy gap analysis and role of IPMS

While this market-oriented policy direction is providing some new options for reducing poverty and food insecurity, translation of this policy into action at the grass roots level is still a major “gap”, especially since many of the past development efforts have been geared to increasing food production within an institutional framework which had a high degree of control by government institutions. Hence, there is not a lot of experience in market oriented development of the agricultural sector in Ethiopia.

The new policy direction will therefore require a re-orientation of the different service institutions especially extension, input supply and credit and marketing, as well as the linkages between these services. While there are some ideas on technologies and institutional innovations (see 2.1.1), government explicitly acknowledges that it would welcome “new” innovative ideas to translate policies into action.

In assessing the institutional situation in the Pilot Learning Sites (PLS), during the project planning phase, the project also diagnosed that many of the technology and institutional innovations are still at their infancy. Therefore little is known on institutional development and its impact on technology development and ultimately the livelihood of people. Systematic feedback on innovations is therefore hampering the proper development of policies.

¹ A project for the integrated institutional development of the Ethiopian Export Promotion Agency is implemented by the Centre for the Promotion of Imports from Developing Countries in the Netherlands. Amongst others this project is conducting studies on potential export commodities. A new project entitled “Support to Business Organizations and their Access to Markets in Ethiopia” is presently being developed by the Dutch SNV organizations.

The IPMS project will assist the government by “accelerating” the introduction of technology and institutional innovations, as well as adding/modifying innovations. Since the IPMS project believes that the successful development of these innovations can only be achieved in collaboration with the beneficiary institutions and rural population, the project agreed with the MoARD to do this through a “hands on” approach in selected Districts (Pilot Learning Sites) introducing innovative extension approaches as an integral part of the process.

The innovations will be implemented by existing institutions in the PLS and be closely monitored by the project staff and partners in order to identify successful innovations and factors which have influenced this. The lessons learned will be fed back into policy makers at Regional and Federal levels through the project’s learning structures at these levels as well as policy projects at the Federal level (e.g. ESSP). The IPMS policy feedback will contribute to policy debates and ultimately result in the refinement of government policies and strategies in order to facilitate the scaling out of the innovations. Innovation introduction and policy feedback will pay specific attention to gender, HIV/AIDS and the environment.

2.2 The extension services – towards a new role

2.2.1 The present extension system and strategies

Agricultural extension interventions started in Ethiopia in 1953 following the establishment of the Ethiopian College of Agriculture and Mechanical Arts, currently named Alemaya University.

During the imperial regime, the Ministry of Agriculture followed the minimum package program (MPP) in its extension system. The MPP I was implemented between 1971 and 1979. The objective of this program was provision of essential services (extension and agricultural support services to small scale farmers. The program integrated research, input supply and credit from the Agricultural and Industrial Bank

In 1980, the minimum package program MMP II was formulated and became operational. It was funded by the World Bank, IFAD and to some extent SIDA. The objectives were modified and focused on improving productivity of crops and livestock for domestic requirements, improving productivity of industrial crops for domestic industry and export market, enhancing soil and water conservation activities, establishing farmer organizations and construction of rural roads, grain stores and agricultural offices.

In 1985, the so-called Peasant Agricultural Development Programme (PADEP) was initiated. The program employed the Training and Visit (T&V) extension system. It was under this extension system that the research extension liaison committees (RELC) were formed at the national and regional. This helped to bring research and extension together for better transfer of technologies.

After the change of Government in 1991, the previously started PADEP program continued for the next 4 years. After a review of the system, a new extension system called Participatory Demonstration and Training Extension System (PADETES) was developed in 1995. Following some of the experiences gained in pilot demonstrations by SG-2000, a package for the development of the agricultural sector was adopted. In this approach, all the essential components such as information on agriculture technology, cultural practices, provision of inputs and credit and communication methods were provided to farmers as a complete set. The transfer of technology was done through demonstration of the various agricultural development activities on a realistic size and adopted a cluster approach to transfer the knowledge through diffusion from farmer to farmer extension and organizing field days.

Three major initiatives are presently underway by the GoE to strengthen and reorient the extension system i.e.

- Increasing the capacity of the extension staff
- Introducing a Farmer Training Centre (FTC) based extension system
- Strengthening the agricultural knowledge management system

Increasing the capacity of the extension staff

In response to the inadequate numbers of extension staff as well as the inadequate level of professional training of the existing staff, the MoARD in 2001, started the middle level Agricultural Technical Vocational Education and Training College (ATVET) Program to provide a three year, tailored agricultural training for students who completed 10th grade or above. Unlike other TVETs, which are under the Ministry of Education, the ATVET are under the MoARD, which has created the extension and TVET Department, currently structured with a Project Office, a Curriculum Development and Program Supervision Team, and a Training Needs Assessment and Research Coordination Team. The training has started in December 2001, by upgrading 25 former training centers to a college level after adding other relevant establishments.

The training emphasizes five major agricultural fields; namely, plant sciences, animal sciences, natural resource conservation and development, animal health and cooperative development. A total of 55,000 students are expected to graduate over the next four years. In September 2004 a total of 9,400 students graduated from the TVETs and have been deployed in the various Woredas, where they will fill the positions in the newly opened Farmer Training Centres at PA level. The final batch of students will be admitted in 2005. In the meantime the ATVETs are preparing themselves to initiate specialized training programs to meet market demands in specific fields, as well as refresher courses for the newly trained DAs. For a more detailed description of the TVET program see **Annex 1 part 2**.

Introducing a new Farmer Training Centre based extension system

This middle level agricultural (diploma) training program is directly linked to another major MoARD activity aimed at improving the capacity of the extension system i.e. the establishment of 15,000 Farmer Training Centers (FTCs) that would provide extension services and junior level training to farmers².

Out of the 55,000 middle level professional graduates, 45,000 will be assigned in the newly constructed FTCs, three at each center (one specializing in plant sciences, one in animal sciences, and one in natural resource conservation and development), while the remaining 10,000 who are specializing in cooperatives development and animal health will be employed /assigned/ in cooperative societies, cooperative promotion offices and animal health clinics.

The first batch of students (Development Agents) who graduated in August-September 2004, and the DAs are being assigned to the newly established FTCs. For a more detailed description of the FTC program see **Annex 1 part 3)**

Strengthening the agricultural knowledge management system

Lack of knowledge was/is considered as one of the key impediments to the development of agriculture in Ethiopia. This lack of or poor dissemination of knowledge covers many areas including:

- lack of awareness of research outputs that are already on the shelves of national and international agricultural research institutes.
- lack of or inadequate understanding of the market dynamics that impact profitability of outputs or even availability of markets for agricultural outputs
- lack of awareness of the impact of quality production processes in what can be expected from the final outputs of agriculture, etc.
- lack of awareness of various specific options available in improving production and productivity of selected commodities.
- poor documentation and dissemination of indigenous knowledge that have potential in increasing production, productivity, and sustainability of the agricultural sector of the country.

This need is currently well understood by the Ethiopian government as can be witnessed by the massive scale initiatives underway throughout the country to build an infrastructure for delivery of knowledge and information at all levels. Examples of these efforts include the following:

² The MoARD is designing a project called Capacity Building for the Agricultural Sector (CBAS) for donor funding (potentially including the World Bank and CIDA) for ATVET, FTCs, Extension and Research and Marketing

i) The *WoredaNet* project under the Ministry of Capacity Building is well underway with an ultimate goal of connecting over 660 *Woredas* (administrative districts) with their respective regional governments and the Federal government offices. The initial services delivered in this infrastructure are e-mail and video conferencing capability that are expected to streamline communication among the various government institutions and thus help make the government more efficient and responsive. The near term goal for this project is to identify “knowledge assets” in various areas including agriculture, health, trade and industry, education, etc., with the potential to be delivered using this infrastructure. A lot of work needs to be done to make this a reality and the IPMS project plans to link with this initiative in the *Woredas* in which it operates and make contributions to the national effort while leveraging the infrastructure to deliver other specific objectives of this project.

ii) The *SchoolNet* project is a similar project of ICT infrastructure that beams satellite based distance education to over 5700 high schools around the country. This project is already underway and programs are being broadcast to many of the targeted high schools. This infrastructure creates an excellent opportunity to broadly disseminate knowledge to targeted groups with proximity to these infrastructures.

iii) The *AgriNet* project will link regional and national agricultural research institutes with the goal of better and more efficient sharing of available expertise and content as well as making communications among these institutions more efficient.

2.2.2 Gap analysis and role IPMS

While major efforts are underway to improve the extension institution the new role of the extension department still has to evolve and be tested in the field. As explained above, past extension has emphasized technology transfer through various packages. With the introduction of a market-oriented agricultural development strategy, the Extension Department has realized that an agri-food chain approach is required, in which the focus is a commodity value chain (from producer to consumer). Such an approach requires the linkage of different partners and making such linkages operational. At the community level, the newly established (FTCs) can be used to create such institutional linkages between farmer (groups) and the different institutions in the agri-food chain, including rural finance, cooperatives, private traders and entrepreneurs. Simultaneously various forms of linkages between similar interest groups from different FTCs can be explored to develop institutional innovations at the scaled up level. In addition other organizational forms of extension (linkages) may be introduced, e.g. agri-food chain services, including technical assistance provided by large scale private entrepreneurs through out-growers schemes.

For the extension system to start playing this new role, a considerable shift in the modus operandi of the existing system will be required. Not only will the role of the extension services change in terms of an institution providing linkages, but also in terms of an institution providing knowledge (including

farmer knowledge) to and from the beneficiaries (farmers, cooperatives, private traders, other community based organizations) and institutional service providers.

Emphasis in the new extension approach would be on the use of participatory principles/tools and learning principles, resulting in participatory commodity development (PCD). Such an approach should also take account of the gender; HIV/AIDS and environment (see separate sections).

During the planning phase the IPMS team visited some TVETs and also reviewed the extension activities in 4 Pilot Learning Sites. In general emphasis in the TVET training is still on technical training i.e. crops, livestock and natural resources. A considerable gap exists in participatory extension oriented training, emphasis of gender/HIV-agriculture relationships and environment-agriculture relationships, as well as the operation and management of the Farmer Training Centers (FTCs).

It was also observed that the role of the extension service is gradually moving away from providers of inputs and loans. Some less restrictive packages have also been introduced. In some of the PLSs, research and extension organizations have also initiated some linkages with processing industries following the agri-food chain principles. However, there is still a long way to go and the newly opened FTCs and staff are in fact not yet operational.

Most of the knowledge management systems activities at present are IT based and past efforts have not been successful. Also little or no attention is provided to knowledge management capturing and sharing mechanisms and procedures. A system for knowledge sharing and learning among all stakeholders involved in the county's agricultural sector in one way or another is required. These stakeholders include farmers, pastoralists, government institutions at various levels, national and regional agricultural research institutes, NGOs, community based organizations and the private sector involved in this segment of the economy. Unique opportunities therefore exist for the IPMS project to assist the MoARD to help shape the new role of the extension institution at different levels.

At the federal and regional levels, it can support the MoARD with its knowledge management efforts, building on the on-going initiatives, using the PLS knowledge management requirements as a guide. Particular attention can also be paid to broaden the present concept of knowledge management including (IT and non IT based) knowledge sharing and capturing mechanisms.

At regional and federal levels, the IPMS project can furthermore strengthen capacity building institutions (such as ATVETs) by introducing staff and students to new extension methods and innovative technologies in support of a market oriented development.

However much of the project's work will focus on the "gap" which exists between theory and practice for the development of a market-oriented

extension system at the grass roots level – PLS level. Getting hands on experience with developing an extension system in and around the newly formed FTCs, including a functional knowledge management system will therefore be a focus area of the project.

The knowledge management system to be developed will be responsive to the specific needs of the intended target audience at all levels. As such, the methods and processes used to share knowledge will be tailored to the needs of Federal and Regional institutions, farmers and pastoralists, as well as variations in methods and delivery mechanisms when reaching men and women farmers. The project will also be cognizant of the need for multi-faceted communication among all the stakeholders in Ethiopia's agriculture development, specifically the extension system, research, and education institutions, with the Ethiopian farmers at the centre and focus of all other actors. Customary (traditional) knowledge sharing methods will be leveraged to capture indigenous knowledge for broader dissemination to a larger audience – whenever this is relevant. Another area of short-coming that has been observed by the project is the retention of qualified technical staff that can support systems developed by the MoARD. Such staff often leave due to better market conditions for skilled technical staff. The project will share best practices in the areas of human resource development and retention strategies that may help alleviate the critical need in retaining qualified IT staff that can support the systems to be developed by the project and other MoARD initiatives.

In some of the Pilot Learning sites, Non Governmental Organizations (NGOs) are involved in the development of the agricultural sectors. Many do work however through the existing government staff. The ones which employ their own field staff are usually project funded and phase out when projects come to an end. However, there are some powerful organizations which have longer term commitment to agricultural development and the project will include these organization in developing and introducing innovative extension services in the PLS.

2.3 Civil society – towards an increased role

2.3.1 The present role and strategy

Civic society organisations in particular community based organisations; and private sector individuals and organisations for the supply of agricultural inputs /services, credit and marketing are still poorly developed. In the past, input supply and credit was linked to agricultural packages and the main distributors/suppliers were the agricultural offices and/or government controlled enterprises such as AISCO, the Ethiopian Seed Enterprise, government nurseries, government hatcheries and ranches for the multiplication of improved stock etc. Also veterinary services, including the supply of veterinary drugs and artificial insemination (A.I) services were completely in the hands of a government controlled system. On the other

hand, most of the marketing was handled by the private sector within the framework of government rules and regulations.

As a result in the change in overall policy, the government is trying to increase the involvement of non governmental actors in the supply of these services. In so doing , particular attention has been given to the role of cooperatives for input supply, credit and marketing. The government furthermore encourages the development of private limited share companies for the disbursement of rural finance, so called micro finance organisations. Some private companies were also established for the supply of improved chickens. There are beginnings in some of the regions and PLSs that the Bureau of Agriculture and Rural Development (BoARD) contracts private manufacturers for the supply of improved implements such as improved beehives and treadle pumps.

2.3.2 Gap analysis and the role of IPMS

The impact of these changes in policies in terms of institutional changes was observed in the PLS. In general, the role of the cooperatives for the supply of inputs previously handled by the agricultural department has increased, often coupled with the supply of credit to purchase the inputs. The role of the cooperatives in marketing has also increased, notably in the coffee and cereal marketing. However, the major share in marketing is still taken by the private sector. In the livestock sector some cooperative formation has taken place especially for milk processing and marketing, however the bulk of the dairy products as well as all other livestock products are in the hands of the private sector. It was observed, however, that management and business capacity of cooperatives was fairly poor and functioning was constrained by the rather bureaucratic procedures involved, as compared to the private traders. Also their access to markets and market information is less than that of the private traders.

Supply and production of improved seed is still mainly in the hands of the official seed companies and the research system. Farmer, cooperative and private entrepreneurs' involvement in the supply of seeds is limited. A change can however be observed in the production of seedlings (coffee, fruits), away from the government controlled system to a farmer based system. Involvement of the private sector in the supply of veterinary services was virtually non existent in the PLS. Many of the livestock related services are also still mainly in the hands of the ministry, although some privatised efforts can be observed in and around urban centres (e.g bull stations).

Micro finance institutions have been introduced in all PLS, however their services are limited and loan conditions are restricted. Also in some PLS, interactions with the agricultural development programs are limited.

There is a tremendous opportunity for the IPMS project to use the “new” extension system to build the capacity of farmers and civil society to bring new technology and institutional innovations for civil society into the system,

linking the different institutions and establishing a knowledge management system. Obviously, not all aspects can be covered and the involvement of specialised partners is most crucial in this part.

2.4 Gender

Ethiopian women are heavily involved in agricultural production by supplying labor to various agricultural activities and making important farm management decisions in addition to performing other household tasks. The proportion of female-headed households in the Ethiopian rural community is high, averaging as high as 26%. Female headed households farm less intensively, achieve lower crop yields, and have lower total and per capita income. These situations of female headed households indicate the need to provide special attention to the status of female-headed households.

The MoARD has recognized this and in its food security strategy it specifically refers to the special needs of women. Canada has also put gender as a core theme for its development strategy. The case for gender mainstreaming within development programs in Ethiopia is now well established and the context in which gender should be addressed is set out in the National Policy on Ethiopian Women. In the MoARD, the Rural Women's Affairs Department promotes gender development in the agricultural sector at the Federal level, while experts in the bureaus of agriculture are responsible for supporting women's development in their respective regions. There is limited attention to gender issues in the agriculture TVET curriculum although extra-curricula courses have been held at the Federal TVETs. CIDA intends to provide technical assistance to support engendering the ATVET curriculum (not yet materialized).

Besides institutional changes in the MoARD, the GoE has also established Women Affairs offices at the Ministerial (federal), Regional and District level.

The overall purpose of the gender strategy in IPMS is to promote gender equity in market-led agricultural development opportunities as a step towards achieving gender equality. The specific objectives are fourfold:

- to understand the gender context of the priority commodities and services to be supported by IMPS;
- to develop the skills of IPMS research and development officers (RDOs), agriculture TVET staff, *woreda* staff and development agents (DAs) to identify and address gender issues in the agricultural sector;
- based on the improved understanding of the gender context, adjust the project activities in the PLS and identify opportunities to enable women and men to have equity of opportunity to participate in project activities: and
- to contribute to the knowledge base about gender in the agricultural sector.

See **Annex 2** for details

2.5 HIV/AIDS

The HIV/AIDS pandemic is devastating rural communities in sub-Saharan Africa, including Ethiopia. Many in the agricultural labor force are dying, and labor productivity is declining due to the disease. Interventions to mitigate the social and economic impacts of HIV/AIDS are desperately needed. Both CIDA and the MoARD are aware of these implications and the food security strategy recommends the promotion of preventive and curative healthcare with a focus on building a healthy and productive population.

To date, the response by the lead agencies working in the agricultural sector, namely MoARD, the regional bureaus, and the Ethiopian Agricultural Research Organization (EARO) has generally been limited. They have appointed one member of staff as the HIV/AIDS focal point; a task which they perform in addition to their existing duties. In the MoARD, a small task force has been established. Some initiatives within the agricultural sector are underway and have the potential to contribute in various aspects of HIV/AIDS prevention, care and mitigation. Examples of such initiatives include, raising awareness among MoARD and regional bureaus and *Woreda* staff, agriculture TVET College staff and DAs; training DAs to raise awareness in farming communities whenever an opportunity arises; and undertaking HIV/AIDS impact assessment studies in 26 *Woredas* from eight regions to be overseen by MoARD HIV/AIDS task force.

The overall purpose of the HIV/AIDS strategy in the IPMS is to reduce the rural population's risk of HIV infection and vulnerability to the impacts of AIDS as a result of the project activities as well as reduce the effect of HIV/AIDS on agricultural development. The specific objectives are fivefold:

- to understand the HIV/AIDS context of the PLS;
- to develop the skills of agriculture TVET staff, *woreda* staff and DAs to identify and address HIV/AIDS issues in the agricultural sector;
- to empower communities to understand and address factors contributing to the spread of HIV/AIDS in their communities;
- based on a better understanding of the HIV/AIDS context, adjust project activities in the PLS and identify opportunities to minimise the risk of HIV infection and mitigate the impacts of AIDS in rural communities through project activities and linking with HIV/AIDS specialist organizations; and
- to contribute to the knowledge base about HIV/AIDS in the agricultural sector.

See **Annex 3** for details.

2.6 Environment

Given the importance of agriculture in Ethiopia's economy, unsustainable land management practices pose a serious threat to crop and livestock productivity and thus to food security. A number of factors contribute to this. Population growth is increasing the pressure on forested areas and is contributing to the extension of the area cultivated and grazed. According to the Ethiopian Forestry Action Plan, approximately 150,000 hectares of woodlands are cleared for agriculture each year, (the World Bank estimates the clearing at

62,000 hectares). Reduced vegetation coverage contributes to the loss of fuel supplies and to accelerated soil erosion. Free grazing by livestock (estimated at over 60 million cattle, sheep, goats and equines) slows the regeneration of natural vegetation and varying degrees of soil compaction reducing infiltration of rainfall and increasing runoff.

The government established an Environmental Protection Agency (EPA) and Proclamation 295/2002 defines the EPA's mandate and gives it authority to undertake its work. The proclamation is notable for its emphasis on human welfare and development. This is reflected in the EPA's mission statement, which begins, "The mission of the EPA is human well-being and ensuring environmentally sustainable development".

The new environmental legislation requires that Regions establish their own independent regional environmental agencies (REAs) or designate an existing agency for this work. The mandate of the REA is not clearly outlined in the proclamation, but there is a general understanding that it will involve functions similar to those of the Federal EPA. These will include mainstreaming environmental considerations into the development process and the activities of all government, civil society, and private sector organizations, and clarifying the role that environmental management can play in addressing development issues.

The exceptional dependence on agriculture in Africa's third most densely populated country has had a major impact on the environment and is of considerable consequence at all levels of Ethiopian society. Natural resources management is considered as a cross-cutting issue in the IPMS project. The project shall therefore work very closely with the State Ministry of the newly organized Natural Resources Development sector of the MoARD. At the PLS level, experts in natural resources management under the Woreda Offices of Agriculture and Rural Development shall be involved in the implementation of various NRM activities in relation to the priority commodities. The IPMS will undertake initiatives which build and strengthen the environmental knowledge of all stakeholders associated with IPMS project activities and will promote the use of tools such as environmental assessment, as a capacity building instrument. The IPMS "environment framework" puts forth three key objectives; they are:

- to better understand the environmental issues and effects of the priority commodities and services, including macro and micro catchments to be supported by the IPMS and adjust the project activities in line with the findings;
- to develop the skills of IPMS project research and development officers (RDOs), agricultural TVET staff, *Woreda* staff and development agents (DAs) to identify and address environmental issues in the agriculture sector;
- to contribute to the knowledge base on environment, environmental issues in the agriculture sector, and environmental assessment as a planning and project implementation tool.

See **Annex 4** for details.

2.7 Benefit to Canada and the recipient country

The benefits to the Canadian and Ethiopian people are the contribution this project makes to improving food security and reducing poverty through its market led development approach.

The IPMS project is an innovative research and development project, with a high level of GoE support and directly responsive to GoE priorities set out in the SDPRP.

The IPMS project contributes to Canada's effort to fulfill its MDG commitment and will further strengthen Canada's relationships with CGIARs. Over time, improved agricultural production and market success will help to improve the livelihoods and reduce Ethiopia's dependence on food aid.

The project will build the capacity of all levels of government, farmers and other stakeholders in a number of key areas. It will provide important lessons that can be shared with national programs, projects and other donors and will add significantly to the knowledge base of the country in the key areas of agriculture and food security.

CIDA's and the Ethiopian Government's gender policy and strategy is based on the premise that promoting equality between women and men in terms of access to information, resources and decision making allowing them to develop their life potential in similar conditions is an integral part of sustainable development. The project is contributing through a strategy aimed at ensuring a role for women in a market-oriented development.

CIDA's and the Ethiopian Government's policy is to integrate environmental considerations into its decision - making and activities, and to work with its partners and developing countries at improving their capacity to promote environmentally sustainable development. This project seeks the development of "sustainable" agricultural production to overcome Ethiopia's chronic food insecurity.

CIDA and the Ethiopian Government's policy consider HIV/AIDS as a development problem because of its negative impact on skill and labor supply; reduced productivity, income and food security; and increased health costs. This project will develop a strategy aimed at reducing the risks of HIV/AIDS on a market-oriented agricultural development and vice versa.

3 Project description and implementation methodology

Project goal: To contribute to improved agricultural productivity and production through market-oriented agricultural development, as a means for achieving improved and sustainable livelihoods for the rural population.

To achieve this goal the project has four main objectives:

- To develop a gender sensitive agricultural knowledge management system in the MoARD that will enable Ethiopian institutions, farmers and pastoralists to adopt appropriate technologies from research and development institutions based in Ethiopia and elsewhere;
- To build and strengthen gender balanced existing public agricultural institutional capacity and foster institutional learning and change so that new collaborative arrangements across sectors and levels are developed to better support the dissemination, use and impact of market oriented agricultural technologies and information;
- To increase gender balanced capacity of farmers, pastoralists, community-based organizations, and private organizations to improve market oriented agricultural productivity and production, and to improve and sustain livelihoods;
- Based on action oriented research generate gender sensitive policy and strategy recommendations on marketing, technology transfer, input and credit innovations for market oriented priority key crops, livestock & livestock products

The project strategy is to introduce/strengthen and adapt innovative technologies and practices for priority crop and livestock commodities in the 10 Pilot Learning Sites (PLS)³ in conjunction with innovative private sector marketing, input supply and credit arrangements. Such innovations will be introduced and developed on the basis of the potentials of the “market” and the needs and capacities of farmers, including female headed households in the PLS. (objective 3).

Such innovations will require improved access to knowledge on technology and institutional innovations for which the project will assist the MoARD in developing a knowledge management system at the level of the PLS, linked to a Federal and Regional knowledge management system within the MoARD and the BoARD respectively. Not only should knowledge be obtained from indigenous and national (research) resources, but also from international

³ The project intends to use Districts (Woreda), comprised of various Peasant Associations (PA) or Kebeles, as its PLS, since Districts have become the focal point for development by the GoE and most of the institutions in support of agricultural development (extension, input supply, rural finance) are organized at this level.

sources. The project's knowledge management component will therefore support mechanisms and processes aimed at increasing access and linkages with knowledge sources from outside Ethiopia, including international and national agricultural research organization as well as originations like the International Trade Centre (objective 1).

Simultaneously, the capacity of public agricultural institutions⁴ to introduce the technology and institutional innovations and to adapt them with the rural communities using a learning approach will be improved. Such capacity strengthening will focus on introducing/testing innovative methods of technology transfer on priority commodities in and around Farmer Training Centers (FTCs) in the PLS. These FTCs are newly established and staffed with freshly graduated Development Agents (DAs) from the Agricultural Technical and Vocational Education and Training College (ATVET) centers. Emphasis will be put on interactive knowledge transfer, aimed at empowering the rural community's to undertake a market oriented development strategy. The technology transfer and adaptation methods will take into account the farmer's assets and knowledge on the technologies, as well as gender, HIV/AIDS and environment impacts. The methods will also emphasize improving linkages with other public and private institutions involved in agricultural development. Inter-institutional advisory and learning committees have been created and will be further developed at the PLS (*Woreda*), Regional and National levels. (WALC, RALC, NALC). To mainstream this "new" public capacity, the project will also introduce these concepts in the MoARD's learning institute i.e. ATVETs. (objective 2)

The innovations in the PLS will be closely monitored, documented and synthesized. These findings together with the results of special studies on institutions, gender and HIV/AIDS will also be synthesized across different PLS during the project implementation period, in order to provide the Regional and Federal governments with recommendations on strategies and policies on technologies, technology transfer methods and institutional arrangements for input and output marketing, rural finance as well as strategies for the gender and HIV/AIDS. This in turn will assist the MoARD to scale out the lessons learned to similar areas as the PLS during and after the project life. (objective 4).

Because of the innovative nature of the project, the IPMS will use a learning process approach to enable the project stakeholders to be flexible in developing such innovations. The "actors" at the FTC level, including private partners and the advisory and learning committees at the PLS, regional and federal level are expected to play a key role in this learning process. The bases for such a learning approach will be the experiences (successes as well as failures) with the innovations introduced in the FTCs the PLS and the studies on the existing technology adaptation/ adaptations.

⁴ The project will also make use of non public institutions (like NGOs) which are involved with their own staff in agricultural development at the grass root level. Many of these institutions are however limited in their area of operation and often work through/with the staff of the public institutions.

The project's contribution in this innovations process will be to facilitate and monitor the introduction and developments of these innovations with the help of its own staff, consultants and staff from research and development partner institutions. The facilitation will include technical assistance, supply of demonstration/training materials, and credit for input supply, technology innovations (if required) and operational funds for implementing institutions. The project will furthermore conduct/facilitate capacity building activities for project implementers (extension services, subject matter specialists cooperative departments) and the ultimate beneficiaries (farmers, private sector, cooperatives, community based organizations).

The logical framework analysis of the IPMS project, including assumptions, risks and mitigation strategies is attached in **Annex 5**.

4 Work breakdown structure (WBS) and description of the (sub)-components and activities

As shown in the project's objectives, 4 main components can be identified:

- strengthening innovative knowledge management system
- strengthening institutional capacity of agricultural public institutions
- enhancing capacity of farmers, Community Based Organizations (CBO) and agricultural private institutions and technology uptake
- developing recommendations on technology, institutional and policy options

These components are inter-linked and activities may be implemented at the Federal, Regional and PLS levels as shown in the diagram below:

Diagram1: Activities by result and level

Federa	X	X		X
Region	X	X		X
PLS	X	X	X	X
	Comp 1	Comp 2	Comp 3	Comp 4

As shown in the diagram, the project's emphasis will be on the Pilot learning site and the learning of lessons on technology and institutional innovations at this level. The project will also support activities at the higher (regional and federal) level; however, emphasis at these levels will be at supporting and linking PLS activities with on-going government and other donor/project initiatives in particular policy support program like IFPRI's ESSP project, the Capacity Building for Agricultural Services Project and the MoARD's project to link an agricultural component to the multi sector *WoredaNet* program.

Annex 6 provides a summary of the RBM and WBS for each of these components.

4.1 Component 1: Strengthening innovative knowledge management system

Objective: To develop a gender sensitive agricultural knowledge management system in the MoARD that will enable Ethiopian institutions, farmers and pastoralists to adopt appropriate technologies from research and development institutions based in Ethiopia and elsewhere;

Outcome: Functional gender sensitive agricultural knowledge management system interconnected and utilized at all levels, highlighting innovations and appropriate technologies.

There are 5 sub-components, with the following main activity Work Breakdown Structure (WBS)

- Assessing the current state and knowledge requirements at PLS, Woreda, Regional and Federal levels, including Technical and Vocational Education Training College (TVET) and Farmer Training Centers (FTCs).
- Assembling, capturing and synthesizing knowledge on technology and institutional innovations relevant for the PLS.
- Support developing processes and mechanisms for enhanced knowledge sharing systems, including recommendations on organizational development to foster knowledge sharing.
- Support the establishment of a National Agricultural Information Resource Centre (NAIRC), including the establishment of linkages among various stakeholder institutions (Ministry departments, national research centers, TVETs, FTCs, etc.) to make the effort sustainable.
- Support the establishment Information and Communication Technology (ICT) networks and infrastructure to strengthen links between all stakeholders, with emphasis on TVETs, FTCs and PLSs.

With the abovementioned activities it is important to note that the project will focus its attention on the PLS delivery of outputs and make contributions to the higher (regional and federal level).

4.1.1 Assessing the current state and knowledge requirements

Before explicitly mapping out what will be done in terms of knowledge management at the PLS, Regional, and Federal levels, it is important to identify the current state of knowledge sharing and dissemination practices in each of these institutions. Furthermore, there is a need to identify the envisioned (desired) state and extent of knowledge sharing given the time, scope, and budget of the project. Many specific activities will be carried out to accomplish these tasks.

- Diagnosis of organizational, cultural, infrastructure, and process related dependency that either promote or hinder knowledge sharing. This will be done by the project knowledge management expert in collaboration with staff at each level where the knowledge management system will be implemented (PLS, *Woreda*, and Federal). At each level of the project implementation, the assessment will be based on the intended target beneficiary. For example at the PLS level, the assessment will be to determine how the *Woreda* and agriculture offices currently function in terms of knowledge sharing, processes, tools (ICT and other) and organizational setup. The access capacity and mechanisms of farmers at the PLS level will also be examined. However, this will focus on different parameters such as availability of local (rural) radio stations that can be used for knowledge sharing, traditional associations that can be leveraged for the same purpose, etc.
- Knowledge mapping⁵ on priority commodities, input and output marketing, institutional arrangements for technology transfer, input/credit supply schemes, and marketing systems will be done by the project team and staff at the various institutions of the PLS, Regional and Federal agriculture offices.
 - *The Ethiopian Ministry of Capacity Building is currently engaged in a similar process of knowledge assets identification as part of a broad project called “Content and Applications Development” that includes the Ministry of Agriculture, Ministry of Trade and Industry, Ministry of Health, and Ministry of Education. The project has already established linkages with taskforces working on this project and will contribute in the identification, capturing, assembly, and dissemination of knowledge in this area.*

4.1.2 Assembling, capturing and synthesizing knowledge on technology and institutional innovations for the PLS

This activity set will include the actual collection and codification⁶ of knowledge assets⁷ identified at various levels and various forms throughout

⁵ **Knowledge mapping**

A process to determine where knowledge assets are in an organization, and how knowledge flows operate in the organization. Evaluating relationships between holders of knowledge will then illustrate the sources, flows, limitations, and losses of knowledge that can be expected to occur.

⁶ **Codification**

The process of getting people's knowledge into a form by which it can be communicated independently of those people. The most common method is writing things down and putting them into documents and databases. Other methods include pictures, and sound and video recordings.

⁷ **Knowledge assets**

Those parts of an organization's intangible assets that relate specifically to knowledge, such as know-how, best practices, intellectual property and the like. Knowledge assets are often divided into human (people, teams, networks and communities), structural (the codified knowledge that can be found in processes and procedures) and technological (the technologies that support knowledge sharing such as databases and intranets). By understanding the knowledge assets an organization possesses, the organization can improve its ability to use them to best effect and also to spot any gaps that may exist.

the agro-economic system for the priority commodities. Specific activities in this area include:

- Development of spatial and non spatial databases on the technology (including biotechnology) and input/output marketing of priority commodities for the PLS will be done by the project database specialist. This includes linkages with other international organizations including product and trade information from the International Trade Centre.
- Development of spatial and non spatial databases on institutional arrangements on technology transfer, input/credit supply schemes, and marketing systems for the PLS will be done by the project in collaboration with *Woreda* institutions staff in each PLS.
- Development of spatial and non spatial databases on gender, environment, and HIV/AIDS in relation to the priority commodities will be done by the project team in collaboration with PLS *Woreda* and FTC staff. (see Annex 2, 3 and 4) for the information to be deposited in this database.
- Development of spatial and non spatial baseline database with annual up dates for the PLS. This will include biophysical (soil, rainfall, altitude and land use) and socio economic data which will be used for measuring progress.
- Expert consultations/taskforces to identify, capture and synthesize knowledge related to the priority commodities by project staff and partners (See **Annex 7** for potential consultation counterparts)
- Synthesis of knowledge from all available sources to create actionable knowledge assets database that promotes the productivity and market success of priority commodities from the selected PLS will be done by the project staff.

4.1.3 Support developing processes and mechanisms for enhanced knowledge sharing systems

Even when “knowledge” and “information” is available, its value to the overall success of a community depends on the extent of dissemination and manner of packaging such that it is easily accessible to all stakeholders. Processes and mechanism that foster such an environment need to be identified and implemented. Activities in this area include:

- Preparing various forums such as radio programs, leaflets, story telling, etc that help disseminate knowledge to a broad audience in formats and packages that target specific audiences will be done by the project team. This will be especially useful when targeting the rural poor beneficiaries where there is a very low rate of literacy and access to some of the more sophisticated knowledge sharing tools and mechanisms. The project will support some of these activities at in particular at the FTC and PLS level. Overall responsibility should however be with the MOARD.
- Conducting technology exhibitions at national, regional, and PLS levels held on a regular basis in order to share experiences among

stakeholders. The project in collaboration with national, regional, and PLS staff of the Ministry will host these exhibitions.

- Organizational processes that foster knowledge sharing and utilization will be recommended to the various offices of Agriculture and Rural Development at PLS, Regional, and Federal levels. This will include indigenous knowledge sharing processes as well as knowledge sharing with international sources.
- Establishment and strengthening of institutional linkages that foster learning and knowledge sharing between the main stakeholders in extension, research (international, national and regional) and education with the farmers being the focus point of the effort.

4.1.4 Support establishing a National Agricultural Information Resource Centre

The National Agricultural Information Resource Center (NAIRC) is envisioned to be a dynamic repository of a wealth of agricultural resources that will come about as a result of the aggregation of information and knowledge collected to implement the project at the PLSs as well as an active culture of knowledge sharing among all stakeholder institutions and communities. (While the NAIRC will have a hub out of which the overall system will be coordinated and a significant collection of information and knowledge assets will be kept, not all of the information and knowledge assets may be housed in the NAIRC due to logistical, tactical and/or strategic reasons that may dictate the preferred location for certain agricultural resources, information and/or knowledge assets. The development of the NAIRC will be the responsibility of the MoARD and the project's role will be to assist MoARD conceptually. The project will do this on the basis of the assessment (see 4.1.1), the proposed processes and mechanisms to improve knowledge sharing and the experiences gained with the KM systems developed for the PLS (see 4.1.2). The NAIRC will play a key role in strengthening the capacity of the Ministry in national agricultural planning process and in scaling out of the lessons learned from the implementation of the project at the Pilot Learning Sites throughout the rest of the country as appropriate. Activities in the establishment of the NAIRC will include but will not be limited to the following activities:

- Planning and design of appropriate data models for capturing information from diverse sources. The comprehensive data model for data that will be collected from all of Ethiopia will be defined by MoARD in collaboration with national taskforces currently working in this area under the umbrella of the Ministry of Capacity Building. (also see 4.1.2) The IPMS project will assist in this process – including the leveraging of PLS specific experience that will be gained in the course of the project.
- Planning, design, and implementation of the hardware and software infrastructure for the deployment of the NAIRC. The project will support in the procurement of such equipment and also support MoARD staff in the installation and commissioning of the hardware/software platforms.

Particular attention will be paid to linking MoARD's extension department with this NAIRC initiative.

- Capturing and synthesizing of information and knowledge for the PLS (see 4.1.2) in a manner that are conducive for broader application will be done by the project.
- Establishment of mechanisms for populating and continuous update of the national database will be done by the project and the staff of MoARD.
- Training of personnel that will participate in the development of the NAIRC and personnel that will maintain the NAIRC after the completion of the IPMS project will be done by the project.

4.1.5 Support establishing Information and Communication Technology (ICT) networks and infrastructure to strengthen links between all stakeholders

This aspect of the project will leverage existing government initiatives geared to connect various government institutions. The emphasis here will be to strengthen this effort in the PLSs in which the project is active and derive more value from the existing initiatives. Toward that goal the activities of the project will include:

- Procurement of computers and printers to be placed in selected *Woreda* offices in the PLS will be done by the project. At present most of the FTCs do not have telephone connections, however, the MoARD is planning to connect 3,000 FTCs in the coming years and the project will assist in making the system operational in the selected FTCs. This will include equipping one FTC/PLS with at least one computer and a dial-up connection to the *Woreda* agriculture office.
- Design and implementation of simple databases, spreadsheets, and forms that will enable a more efficient data collection and analysis in the PLS will be done by the project team in close collaboration with PLS staff.
- Training of selected staff in the PLS in the use and maintenance of these computers will be done by the project team.
- Linking the computers in the PLS to appropriate Regional and/or Federal offices by leveraging existing ICT initiatives or providing simple but independent connectivity solutions will be done by the project team in collaboration with the Ministry staff at various levels.

4.2 Component 2: Strengthening the capacity of staff in public agricultural organizations

Objective: To build and strengthen gender balanced existing public agricultural institutional capacity and foster institutional learning and change so that new collaborative arrangements across sectors and levels are developed to better support the dissemination, use and impact of market oriented agricultural technologies and information;

Outcome: Strengthened gender balanced institutional capacity of agriculture public organizations to support the development of farmer-based, market-oriented agricultural production systems.

There are 3 sub components which have the following main activity WBS:

- Strengthening the capacity of staff in TVETs, including the procurement of materials and equipment.
- Strengthening the capacity of staff in public agricultural organizations at the *Woreda* (including FTCs), Regional and Federal levels, including the procurement of materials and equipment.
- Developing institutional arrangements (linkages and roles) and a culture of sharing to foster effective responses to information demands.

4.2.1 Strengthening the capacity of staff in TVETs, including the procurement of materials and equipment

The strengthening of the agricultural TVETs will indirectly lead to strengthening of the agricultural extension system, since TVETs are in the process of “producing” future development agents and agricultural development practitioners.

During the planning phase, a number of meetings were held with the MoARD to discuss the potential contributions of the IPMS project to the TVETs. It was concluded that the project could make a contribution to the TVETs program’s second objective i.e. staff development, curriculum and applied research (see Annex 1 part 2). The following activities are proposed:

- Providing in-service training to TVET instructors to improve their skills in technical aspects, especially on “new” commodities and technologies (including value adding). Such training may include visits to ILRI Station in Debre Zeit and/or centers of excellence. Training will be conducted by project staff and (research) partner institutions. (see **Annex 7** for an overview of potential institutions)
- In the area of curriculum development, the project can assist the TVET program by bringing experts that will train existing Ministry staff in curriculum development/revision in selected topics such as “new” commodities/technologies, innovative technology transfer methods, “gender awareness”, “HIV/AIDS and environmental assessment”, etc. As a result, the capacity of the Ministry staff to develop such curricula will be strengthened. (the Ministry’s attempt to develop a gender and HIV/AIDS curriculum has not been successful so far) This will be a more sustainable approach than independently preparing and turning over completed curricula to the TVET program.
- Provision of teaching aids and training materials on innovative technology transfer methods, technologies, gender, HIV/AIDS and environment to the TVETs. Such materials will be compiled and

synthesized as part of program component 1 with the help of research partners and consultants.

- Involving selected TVET instructors and students to PLS research activities on technologies, and institutions, especially those instructors who are or will be enrolled in MSc/PhD regular or summer course program.
- MSc education for selected TVET instructors in topics relevant for a market oriented agricultural development. Half of the trainees envisaged to be female (also see 4.2.2).
- Linking the TVETs to the project's knowledge management system (see component 1).

4.2.2 Strengthening the capacity of staff in public agricultural organizations including the procurement of materials and equipment

Woreda, Regional, and Federal level

The plan for developing the capacity of individuals within the Agricultural and Rural Development Department for market-led development is still under discussion, since the needs for training in relation to the project's program are not yet finalized. This will be done in discussions during the first year of project implementation. It is proposed that part of the funds will be used for study tours for regional and federal level Ministry staff to observe interesting innovative institutional and technology innovations in other countries (for example, Malawi, South Africa, and Uganda). The other part will be used for specific degree and diploma training in subjects which are crucial to the strengthening of the capacity of institutions for market-led agricultural and rural development (policy and institutional analysis, extension, innovations, gender, new technologies). Whenever possible the project will foster appropriate institutional and individual links both within Ethiopia and outside. To bring in new ideas and practices, one focus will be to make links between Ethiopian and foreign institutions in rural innovation systems research, gender and other key topics. Such links would include staff and student exchanges at various levels.

PLS level

The project has a unique opportunity to influence the development of the FTCs and its staff (DAs) in the PLS, since they are at the initial stage of their development and do not yet have a fixed modality for operation (see Annex 1 part 3 for details on the outline of their task). Emphasis will be put on an interactive technology transfer approach in which the various actors will be linked, adopting learning rather than an "instructor's" approach. The project will follow a Training of Trainers (TOT) approach in that the *Woreda* subject matter specialist and Development Agents will receive the training which they will then use to assist farmers and community based organizations (see 4.3.2) to build up their capacity in an interactive way. In cases where the number of farmers to be included in the training is still small, the project may also decide to combine training of agricultural staff and farmers. The TOT training will be given by project staff, partners and/or consultants. Training material will be developed in the course of the project; initial materials/guidelines will in part be obtained from the synthesized knowledge obtained from expert

consultation/task force meetings (see 4.1.3) and material developed by consultants (see Annex 2, 3 and 4 for details). Most of the training will be provided at the PLS level, some of the training may be given at the central level.

A number of capacity building activities are envisaged in support of the proposed PLS and FTC tasks (details for these activities are PLS specific and can be found in the proposed program of work for the PLS). For the proposed capacity building activities, the project will make sure that women staff members are included.

- Capacity building activities (including curriculum development) in innovative technology transfer methods aimed at empowering farmers, CBO and private sector organizations to develop a market oriented sustainable livelihood approach. Such capacity building will be developed in collaboration with partners specialized field (see expert consultation in 4.1.2) and will be aimed at *Woreda* experts (extension, crop, livestock, NRM, input supply, cooperatives) and DA staff of the targeted PAs/FTCs. This activity will benefit the proposed FTC's *extension service* program. Training will be conducted by project staff and (research) partner institutions (see **Annex 7** for an overview of potential institutions).
- Capacity building activities (including curriculum development) in gender assessment, environmental assessment and HIV/AIDS awareness for the *Woreda* and DA staff of the targeted PAs/FTCs. This activity will benefit both the *agricultural training* and the *extension service* program. Training will be conducted by project staff and consultants (see Annex 2, 3 and 4 for details). The development of an environmental assessment handbook for course delivery on Environmental Assessment (EA) is scheduled for 2005. The handbook will be tailored to reflect project and stakeholders needs; and, it will also build on the information already in existence in Ethiopia. Case studies will be culled from project experience and when required, from the existing studies in Addis Ababa.
- Capacity building activities (including curriculum development) for technology innovations (including biotechnology products)⁸ for the priority commodities for *Woreda* and DA staff of the targeted PAs/FTCs. This activity will benefit both the *agricultural training* and the *extension service* program. Training will be conducted by project staff and (research) partner institutions (see **Annex 7** for an overview of potential institutions).
- Capacity building activities (including curriculum development) in private (farmer/cooperative/private enterprise) marketing and input

⁸ The project realizes that building national capacity in the area of agricultural biotechnology will require more resources than is currently available and attempts shall be made to leverage additional financial resources from other sources.

supply system, including group formation for *Woreda* and DA staff of the targeted PAs/FTCs. Training will be conducted by project staff and (research) partner institutions (see **Annex 7** for an overview of potential institutions).

- Provision of training materials on priority commodities and technologies to the FTCs (see component 1). The materials which are found to be most useful can be translated with the help of the project (such an effort should be linked to the Federal and Regional extension services). This activity will benefit the FTCs *agricultural training and extension service* program.
- Provision of demonstration materials on priority commodities and technologies to the FTCs. This activity will benefit the FTCs *agricultural training and extension service* program.
- Strengthening linkages for knowledge sharing and supply of services between PLS, FTCs and private sector institutions for market-led development (micro-finance, marketing and input supply)

This capacity strengthening process will be continuous over the life of the project. Activities will be adapted and modified on an annual basis based on lessons learned. The use of extension and learning methods by the *Woreda* and FTC staff will be monitored and documented as an integral part of the project in order to measure the project's impact and develop recommendations for innovative institutional arrangements (see component 4).

4.2.3 Developing institutional arrangements (linkages and roles) and a culture of sharing to foster effective responses to information demands

The project established preliminary *Woreda* Advisory and Learning committees (WALC), Regional Advisory and Learning Committees (RALC) and National Advisory and Learning Committees (NALC) to help facilitate learning and dissemination of experiences to districts outside the PLS. The members of these committees are comprised of staff from the bureaus of agriculture, rural development, research, micro-finance, women's affairs, cooperative development, HIV/AIDS offices and others. Membership will be expanded with private sector involvement and more women representation when project implementation starts. It is expected that such inter-institutional sharing of knowledge and experience will facilitate the up-scaling of success stories. Learning will be based on the project performance monitoring of the technology and institutional innovations, including the annual performance review workshops, and the special studies conducted by the project on the existing technology and institutional systems.

To enable these advisory and learning committees to function, the project will provide a budget for these committees to meet and interact with project activities and project staff. This will include field visits to the PLS as well as study tours to sites with technology and institutional innovations (see 4.2.2).

- Meetings and field visits of the WALCs
- Meetings and field visits of the RALCs
- Meetings and field visits of the NALC

In addition, these committees shall be linked with the Research and Extension Linkage Committees (RELC) in areas where they are operational. The RELCs are essentially organized and led by research institutions with the objectives of introducing new technologies to experts, DAs and farmers.

4.3 Component 3: Enhancing capacity of farmers, CBO and private sector institutions and technology uptake

Objective: To increase gender balanced capacity of farmers, pastoralists, community-based organizations, and private organizations to improve market oriented agricultural productivity and production, and to improve and sustain livelihoods;

Outcome: Enhanced gender balanced capacity of farmers, pastoralists, community-based organizations, and private organizations to improve agricultural productivity and production, and to improve and sustain livelihoods through the adoption of strategies, technologies, and processes developed in their respective PLSs.

There are three subcomponents which have the following main activity WBS:

- Establishing PLSs that are strategically linked to the priorities of Regional Development Plans.
- Strengthening the capacity of farmers, pastoralists, and staff from Community-Based Organizations (CBOs) and from private organizations at the *Woreda* level in PLSs, including the procurement of materials and equipment.
- Identifying, assessing, implementing and monitoring participatory market-led development programs based on identified priority commodities in farming systems in PLSs, using innovative processes.

This project component will be implemented in the PLSs, which are the project's field laboratories. In these PLSs, innovative technology practices shall be introduced, tested and transferred using innovative technology transfer approaches (see component 2), and innovative input supply, rural finance and marketing strategies. The ultimate objective of this work is to have a set of technologies (practices) suitable for the priority commodities as well as innovative institutional processes and structures for a farmer/community based market led development.

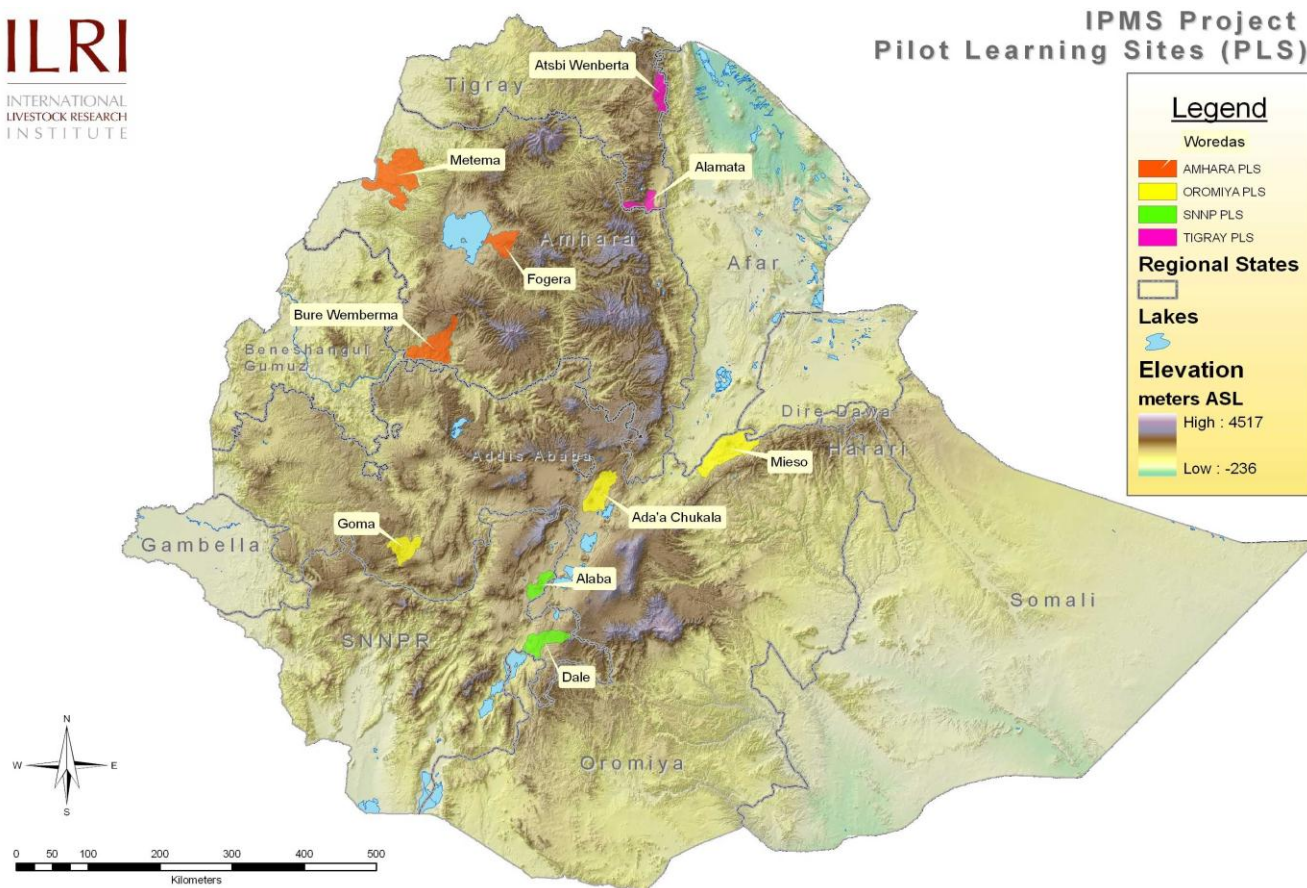
4.3.1 Establishing PLSs that are strategically linked to the priorities of Regional Development Plans

The selection of PLSs was initiated during the project planning phase. Criteria and procedures were suggested during the project's launching workshop held from June 30 to July 2, 2004. Based on these suggestions, the project team adopted a two step approach in the selection of the sites.

The first step was the official introduction of the project and establishment of an initial Regional Advisory and Learning Committee (RALC) in each of the 4 Regional States. During the RALC establishment meeting, the project team introduced the project concept and the proposed selection criteria for the PLSs, i.e. presence of marketable commodities, which reflect regional priorities, possibilities for successfully introducing innovative technology and institutional arrangements within the life of the project. The latter required, amongst others, the presence of a reasonable⁹ agricultural service infrastructure. The number of PLSs had been predetermined from the onset by the MoARD/IPMS project proposal based on potentially available resources and realistically achievable targets, i.e 2 sites in SNNPRS, 2 in Tigray, 3 in Oromiya and 3 in Amhara Regional State. Based on these guidelines, each Regional State selected a number of potential sites, which were prioritized in order of importance, priority commodities and farming systems.

The second step was the finalization of the selection of the Regional sites at the National level. This was undertaken in a one day meeting (July 30) by the preliminary National Advisory and Learning Committee (NALC), for which representatives from the MoARD, EARO, Regional States, and Addis based international research partners were invited. The main criterion for this second selection process was to achieve, as much as possible, complementarities between the sites selected in order to introduce innovations across different commodities and farming systems. The final selection of sites is shown in **Map 1**, while some initial details for each site are presented in **Annex 8**.

⁹ Presence of cooperatives, micro finance institutions, FTCs; nearness of the PLS to TVETs and research stations will be an advantage, but is not a must



During the national site selection meeting, the project team introduced the procedure and methods for establishing an initial program of work for a PLS. Based on recommendations made during the project planning workshop, the project team decided to limit the number of PLS program development during the IPMS planning phase to one site for each Regional State, i.e. Atsbi District in Tigray, Fogera in Amhara, Ada'a Liben in Oromiya and Dalle in SNNPRS.

A preliminary set of planning data, including GIS, were collected on each of these PLS and teams comprised of project staff, MoARD and national and international research partners took part in the planning exercise.

The first step in the PLS planning was the creation of a WALC, followed by an introduction of the project to the WALC members. The next step was the identification of the major farming systems in the PLS and the potential market commodities within them, based on the commodities identified in the strategic plans prepared by the regional and *woreda* agricultural staff. Farming systems and potential commodities were then discussed with the various *Woreda* agricultural service institutions (crop, livestock, natural resources, cooperative department, women affairs and HIV/AIDS officials). This was followed by field visits to the selected farming systems by teams (two to three) consisting of project staff, project research partners and *Woreda* staff. During these field visits, semi-structured interviews were held with field staff (DAs and supervisors) and community members (male as well as female farmers) to explore the nature of the farming system, to identify the major marketable

commodities and their production methods/problems (including natural resource management), input supply and marketing arrangements. Problems associated with the production to marketing continuum of the identified commodities were also discussed. The suitability and possibility of introduction of new commodities was also explored and discussed. The findings of this initial PRA were then summarized, presented and discussed in a 2-day PLS planning workshops (one in each PLS) which were attended by representatives from the RALC, WALC, *Woreda* experts, DAs, community representatives, male and female farmers, NGOs, and national and international research partners.

A 3-day national planning workshop with representatives from WALC, RALC and national and international research partner institutions, and relevant NGOs was then held (October 19 to 21) to present the summarized findings and develop an outline for a program of work for the initial year. This includes an overview of the potential commodities to be considered by FTC/DA post. Once PLS implementation starts, these commodities will be assessed with the communities around these FTCs using participatory methods. (the initial PRA was based on only a few villages). Special studies will be conducted to ensure a role for women and resource poor farmers in this market oriented development (see Annex 2 for details). Also more in-depth quantitative studies of the proposed commodities and innovations will be conducted at the village level to fine tune the choice of commodities based on the potentials/assets of the individual communities and the existing systems.

Plans for 4 PLS have been developed and plans for an additional 4 PLS, will be developed during the first 4 months of 2005. The remaining 2 sites will be developed after some experience has been gained with managing and funding the activities for 8 PLS. A decision will be made project steering committee in the second half of 2005 based on the advise of the project's advisory and implementing structures.

Implementation of the individual PLS programs will start once the PIP has been approved.

4.3.2 Strengthening the capacity of farmers and private organizations in PLSs

Armed with the knowledge received (see component 2), *Woreda* and FTC staff can assist the private project beneficiaries to build their capacity for a community based market oriented development process. A number of activities are envisaged to build the knowledge, awareness and skills of farmers, private entrepreneurs, cooperatives, associations and micro-finance institutions in the targeted FTCs in order to improve: marketing, input supply/credit, production including natural resource management (details on targeted FTCs and proposed interventions for priority commodities for these activities are PLS specific and can be found in the proposed program of work for the PLS). The participatory training will be conducted by the DAs and *Woreda* staff who will be guided by project staff and partners from national and international research and development organizations (see **Annex 7** for

potential partner organizations). Training in each PLS, will usually be provided in one of the FTCs to key farmers from similar interest groups from the different FTCs (it is expected that interest groups will be formed in the targeted FTCs – see 4.3.3 for details on the formation of interest groups). These key farmers, together with the FTC staff will then bring the knowledge to the “interested” farmers in their own FTC/village. Study tours to places with operational institutional and technology innovations will be an integral part of the capacity development of farmers and private organizations.

Marketing

Three main interventions for improving the market position for small farmers were identified during the initial PRA, i.e. i) clustering of individual farmers to increase their negotiation power and access to market information ii) improving product quality, storage and processing iii) introduction of business oriented production system (see proposed production system activities). The following capacity building activities will be supported by the IPMS project:

- Capacity building in group formation and group functioning by the cooperative staff, including the development of entrepreneurial skills for farmers, associations and cooperatives. Follow up capacity building activities will be planned annually on a needs basis.
- Capacity building in product quality, grading, storage and processing improvement for farmers, associations and cooperatives. Follow up capacity building activities will be planned annually on a needs basis.

Strategies will be developed to ensure that women farmers are included in these activities (see Annex 2).

Input supply/credit

Supply of inputs/credit was diagnosed as a major bottleneck for a market oriented agricultural development. To improve this situation, the IPMS project will focus its attention on strengthening the private sector in the supply of improved (genetic) crop and livestock materials as well as the supply of all other inputs and services in the PLS. Various models will be tested/introduced including farmer to farmer supply (e.g seedlings, seeds, and improved animals), farmer/cooperative supply (e.g. crop and fodder seeds), farmer/private industry supply (e.g. crop and fodder seeds), cooperative and/or private enterprise supply (e.g. fertilizers, farm implements, beehives, hay box brooder, irrigation equipment, drugs, and animal health services). Depending on the nature of the model, clustering of individuals and linking them with association/cooperatives and/or private enterprises will be required.

Such development will require capacity building in:

- Group formation and linkages with private enterprise and or cooperatives and development of entrepreneurial skills. Follow up capacity building activities will be planned annually on a needs basis.

- Technical skills for the production of inputs (e.g. seeds, seedlings) and provision of services (e.g. bull services, AI). This will be targeted at individuals (farmers, private enterprises, and cooperative staff). Follow up capacity building activities will be planned annually on a needs basis.

Strategies will be developed to ensure that women farmers are included in these activities (see Annex 2).

Production/technology innovations

The IPMS project's technology program will focus its attention on production systems based on the demands of the market and the assets of the individual farmers (male and female) and the communities. This includes improvement of quality and post harvesting handling and processing (already discussed under marketing), as well as production methods which require rearrangement of production processes and schedules. Examples are improved breeding cycles/fattening periods and weights of animals, staggered (over time), planting of vegetables to avoid peaks in supply.

The IPMS technology program will also focus on strengthening or introducing new technology practices including biotechnological practices (e.g tissue culture), natural resource management, in particular soil and water management (including small scale irrigation and water harvesting) and pest and disease management and feed/fodder production. Technologies (practices) will be drawn from "off the shelf" knowledge on varieties, management practices as well as indigenous knowledge.

The following capacity building activities for individual farmers and groups will be supported by the IPMS project:

- Training in market oriented production methods including value adding, for the selected commodities.
- Introduction of innovative (bio) technology practices, including tissue culture for selected commodities.
- Natural resource management including irrigation, soil fertility improvement, soil and water conservation in support of the priority commodities

Strategies will be developed to ensure that women farmers are included in these activities (see Annex 2).

Follow up capacity building activities will be planned annually on a needs basis.

4.3.3 Identifying, assessing, implementing and monitoring participatory market-led development programs in PLS's

Based on the initial diagnosis and program design (see 4.3.1) a more detailed program of work can be initiated at the community level.

In each of the PLS, a number of FTCs and/or DA posts was identified for introducing the proposed technologies and institutional innovation for priority commodities.

The first step in the development of a program for the PLS is to (re) assess these “marketable commodities” and the proposed technology and institutional innovations with the farmers and communities in and around the selected FTCs. Different approaches (to be discussed in the expert consultation meetings – see 4.1.2) may be tried depending on the nature of the commodity, however, regardless of the method used, due attention shall be paid to the resources available to the farmers and communities and the role resource poor farmers and women can play in this market oriented development. A special study to determine the role of the women and resource poor farmers will be used in this process (see Annex 2).

Based on the re-assessment of the potential innovations at each of the FTCs, learning or interest groups¹⁰ shall be established around different technology and institutional innovations. For example in one FTC there may be a group of women farmers around the development of irrigated vegetables, another group for the production of improved seeds for haricot beans, another group testing hay box brooder, and one or two individual interested in developing a business for the supply of small irrigation equipment. Representatives from the FTC based interest groups will be trained in aspect relevant for that particular interest. For example, in 5 of the FTCs in a PLS, an innovative seed supply system may be of interest. Representative of all 5 groups will be gathered in one of the FTCs to exchange knowledge and learn, facilitated by the project staff, partners, FTC staff and *Woreda* staff (see 4.3.2). The empowered male/female farmers’ representatives together with the DA will then start a process of building the capacity of “their” interest groups in and around the FTCs through a process of learning by doing. Different interest groups will also be linked in this process to exchange lessons learned and adjust.

Evaluation of new technologies shall be undertaken by both female and male farmers and based on their assessment wider popularization and dissemination of technologies and processes shall be undertaken. Technologies that require further refinement shall be re-assessed in a participatory manner using similar procedures.

Simultaneously, institutional innovations for input supply/credit and marketing linking the initiatives of farmers around the FTCs will be developed with group representatives and scaled up (*Woreda* level) private sector or community based organizations (e.g cooperatives, unions). The proposed *Woreda* scale

¹⁰ Interest groups (community of practice, common interests) may be newly established groups but may also be build on existing social group structures such as idir, church groups, women associations, youth clubs, cooperatives etc.

capacity building activities of representatives of the different FTC interest groups may be used for this purpose.

This process of simultaneously operating at the farmer/community level for technology and institutional innovations as well as at the scaled up *Woreda* level will be closely monitored by the stakeholders and the lessons learned will be used to adjust the methods and approaches used.

The proposed activities for marketing, input supply, credit and production are presented in the following section. Details for each of these interventions can be found in the individual PLS reports (see 4.3.1). So far, four of these reports have been developed and the reports for the other PLS will be developed in the first four months of 2005.

Based on the identified activities and potential partners for each of the PLS, the partner institutions will be asked to design “their program of work and budget”, within the overall project framework. It is expected that (international) partners make use of project staff and collaborative arrangements with national and regional research institutions for the implementation of the activities.

Marketing

In order to develop appropriate market strategies, more in depth studies of existing arrangements will be made. Based on these in depth studies, innovative market arrangements will be designed with the communities involved (see component 4).

As a result of the studies and initial training on group formation, (improved) functioning of market groups is expected to take place/be strengthened around the targeted FTCs. This process will be facilitated by the DA/*Woreda* and project staff as well as staff from specialized institutions (see before) over the project life.

The project will support this activity by:

- TA for group formation and strengthening in around FTCs by *Woreda* staff and national and international research staff and private consultants.
- Exchange visits for groups and associations within and outside the PLS (expected to start in the second project year). A strategy will be developed to ensure a balanced number of men and women farmers participate in these exchange visits (see Annex 2).
- Linkages between groups/associations and cooperatives with the private sector through meetings, workshops and visits.
- Market promotional activities for the associations and cooperatives.

It is noted that the group formation may also have to be supported with funds for infrastructure facilities and credit. In principal the project will facilitate this by linking the groups with development oriented project's operational in the *Woreda*, Region and the country. Demonstration materials and small-scale

models for the above facilities would be considered for support by the project on a case by case basis.

As a result of the initial capacity building (see before), improved storage, quality and processing program at farm and cooperative/association level is expected to take place around the targeted FTCs. This process will be facilitated and monitored and documented by the DA/*Woreda* and project staff as well as staff from specialized institutions (see before) over the project life.

The project will support this activity by:

- TA for on farm storage, quality improvement and processing by *Woreda* staff, and national and international research staff and private consultants
- Exchange visits within and outside the PLS (expected to start in the second project year). A strategy will be developed to ensure that a balanced number of men and women farmers participate in such exchange visits (see Annex 2).

It is noted that the quality, storage and processing improvement may also have to be supported with funds for infrastructure facilities and credit. In principal the project will facilitate this by linking the groups with development oriented project's operational in the *Woreda*, Region and the country. Demonstration materials and small-scale models for the above facilities would be considered for support by the project on a case by case basis.

Monitoring and documenting of the market innovation is a continuous process in order to measure the project's impact and develop recommendations for innovative institutional arrangements (see component 4).

Input supply/credit innovations

In order to develop innovative input/credit development strategies, more in depth studies of existing input supply arrangements will be made. Based on these in depth studies, innovative input supply systems will be designed with the communities involved (see component 4).

As a result of the in depth studies and initial training, group-, farmer- and private sector based input and service supply systems are expected to be developed and/or strengthened around FTCs. This process will be facilitated by the DA/*Woreda* and project staff as well as staff from specialized institutions (see before) over the project life.

The project will support this activity by:

- TA for farmer and private sector experimentation with input supply systems in around FTCs by *Woreda* staff, national research staff and international research and private consultants
- Exchange visits within and outside the PLS (expected to start in the second project year).

- Establishment of credit program for farmers, small scale entrepreneurs and cooperatives through the existing micro-finance and commercial banking institutions. Particular attention will be paid to women entrepreneurs (petty trade is one of the more women focused credit operations).The project will not finance large scale input supply systems such as fertilizers.
- Provision of foundation seeds and experimental/demonstration inputs (examples are seeds, semen etc). Introduction of improved genetic material will follow the appropriate channels to minimize the risks to farmers and the environment. For the genetic characterization, conservation and multiplication of indigenous genetic material of priority commodities (see 4.4.1) the project will facilitate linkages with the appropriate institutions.

Monitoring and documenting of the input supply innovation is a continuous process in order to measure the project's impact and develop recommendations for innovative institutional arrangements (see component 4).

Technology innovation

In order to develop innovative technology options, more in depth studies of indigenous technology options will be made. Environmental briefs as well as special studies on gender and HIV/AIDS will also be conducted to provide better targeting of the technology innovation (see Annex 2, 3 and 4 and component 4). Based on these in depth studies, innovative technology options will be designed with the communities involved.

As a result of in depth studies and the initial training, farmers are expected to start introducing technologies and practices on the priority commodities around FTCs. This process will be facilitated by the DA/*Woreda* and project staff as well as staff from specialized institutions (see before) over the project life.

The project will support this activity by:

- Community experimentation and learning by successes and failures of technology innovations together with FTC, *Woreda*, national and international research staff
- Exchange visits within and outside the PLS to share new ideas and best practices
- Establishment of credit funds through the existing micro finance institutions for innovative technologies, especially for technologies suitable for women farmers (small livestock ,vegetables, etc).

Monitoring and documenting of these experiments will be a continuous part of the project learning process to improve its relevance and impact (see component 4).

Other activities

It has been proposed (see **Annex 3**) that the project also facilitates activities which will increase “community understanding and ability to address factors contributing to the spread of HIV/AIDS increased through community conversations”. This methodology is developed by UNDP and the project will try to link some communities in the PLS with these programs.

4.4 Component 4: Developing recommendations on technology, institutional and policy options

Objective: Based on action oriented research generate gender sensitive policy and strategy recommendations on marketing, technology transfer, input and credit innovations for market oriented priority key crops, livestock & livestock products.

Outcome: Gender sensitive recommendations (strategies, policies, technology options and institutional innovations) developed from both research and lessons learned.

This component has 5 sub components which have the following main activity WBS:

- Undertaking research on the adoption and impact of alternative technologies within and across the PLSs.
- Undertaking research on alternative and innovative institutional arrangements for extension systems, input supply, rural finance and markets.
- Conducting and synthesizing environmental studies, environmental assessments and analyses in relation to the market oriented commodities.
- Conducting gender analyses and studies related to priority commodities, technologies and services.
- Conducting studies on the interrelationship between HIV/AIDS and agricultural productivity and production vis-à-vis the priority commodities.

The project shall generate knowledge on innovations mainly based on studies and lessons learned in the Pilot Learning Sites. These studies and lessons learned in the PLS will be used and synthesized in the project’s learning structures i.e. FTCs, WALCs, RALCs and NALC and the annual program review. To translate these into policy and strategic recommendations, the project will closely liaise with the Ethiopian Strategic Support Program, which is focusing its policy research work at the regional and federal levels.

4.4.1 Undertaking research on the adoption and impact of alternative technologies within and across the PLSs

The identification of priority commodities and technologies for the PLS is a continuous process which is expected to result in refined technology options during the project life as a result of studies, monitoring and evaluation. The research proposed will be conducted by project staff as well as staff from national and international partner research organization (IARCS, EARO and RARI's), who have been involved in capacity building and technology introduction for the technologies. The IPMS project will undertake the following sub activities in support of technology refinement process:

- Focused studies on indigenous knowledge systems for priority commodities (including identification of indigenous genetic resources) by project staff and selected partners in collaboration with PLS and FTC staff.
- Focused studies on the adoption and impact of current natural resource management technologies (water harvesting ponds, river diversions, soil fertility management, soil and water conservation, etc).
- Regular monitoring of the introduced technologies, including adoption and impact of technologies on environment and gender. Besides, the project regular monitoring, this will require *baseline data* collection and follow up surveys during the lifetime of the project. The baseline data and follow up survey data will be compiled in GIS and other computerized databases.
- Analysis of the impact of technologies on the livelihood of the rural communities including impact on the environment, HIV/AIDS and gender.
- Analysis of factors (institutional, socioeconomic etc.) influencing the adoption of technologies (also see 4.4.2).
- Comparative analysis across PLS on impacts of technologies and factors affecting technology adoption.
- Workshops, conferences and seminars (at PLS, regional and federal levels) to present and disseminate recommendations on the technology innovations.
- Publications (working papers, journal articles etc.) to present and disseminate recommendations on the technology innovations.

The results of activities will be linked to the knowledge management component.

4.4.2 Undertaking research on alternative and innovative institutional arrangements for extension systems, input supply, rural finance and markets

The identification of institutional innovations for the PLS is also a continuous process which is expected to result in refined institutional options during the project life as a result of studies, monitoring and evaluation. The research proposed will be conducted by project staff as well as staff from national and international partner research organization (IARCS, EARO and RARI's), who have been involved in capacity building and the introduction of the institutional innovations. The IPMS project will undertake the following sub activities in support of institutional refinement process.

- Focused studies on the marketing of priority commodities in the PLSs by project staff and partners in collaboration with PLS and FTC staff, including feasibility studies.
- Studies on the marketing of the priority commodities across PLSs. This will include supply and demand studies; marketing channel analysis; structure, conduct and performance studies; feasibility studies etc .
- Studies on existing input supply and credit systems for priority commodities in the PLS by project staff and partners, in collaboration with PLS and FTC staff. While the study will focus on the PLS, it will also take into consideration Regional and Federal level input and credit markets.
- Monitoring of the development and impact of the introduced institutional innovations for technology transfer (see component 2), input and output marketing and rural finance (see component 3). Besides the regular project monitoring, this will require *baseline data* collection and follow up surveys during the lifetime of the project (also see component 1). The baseline data and follow up survey data will be compiled in GIS and other computerized databases.
- Analysis of the impact of innovative institutional arrangements on the livelihood of the rural communities, including the effect on environment, HIV/AIDS and gender.
- Analysis of factors influencing the adoption of institutional innovations.
- Comparative analysis across PLSs on impact and adoption of institutional innovation.
- Workshops, conferences and seminars (at PLS, regional and federal levels) to present and disseminate the institutional innovations and recommendations.
- Publication (working papers, Journal articles etc.) to present and disseminate the institutional innovations and recommendations.

4.4.3 Conducting and synthesizing environmental studies, environmental assessments and analyses in relation to the priority commodities

In line with the project's strategy to have an environmentally friendly development, the project will undertake the following activities:

- For each of the ten (10) PLSs, an “environmental brief” will be prepared and then distributed to the Woreda staff, DAs, and TVET and FTC staff. These briefs will form part of the Participatory Rural Appraisals (PRAs) which culminate in site diagnoses and program designs for each of the ten (10) PLSs;
- Review of existing studies and reports on the status, conservation and developments of the natural resource base (soils, forests, water resources, etc.) in the PLSs by project staff and partners, in collaboration with PLS and FTC staff.
- Comparative analysis and synthesis of environmental assessment and studies across PLSs. Such analysis are expected to contribute to developing a national strategy on environment assessments for market oriented agricultural development.

4.4.4 Conducting gender analyses and studies related to priority commodities, technologies and services

In line with the project's strategy to have a gender balanced development the project will undertake the following activities:

- Studies on gender roles in production and marketing of priority market oriented commodities in PLSs (for guidelines for such studies see **Annex 2**), These will be followed by stakeholder workshop in each PLS to discuss findings from gender analysis of priority commodities, technologies and services and their implications for project activities.
- Case studies of technological, institutional and socio-cultural aspects hindering or facilitating enhanced participation of women in market-oriented development (starting in year 2) - see **Annex 2** for details.
- Comparative analysis across PLSs of gender roles and factors affecting women participation in market oriented development. Such analysis will contribute to developing regional and national strategies aimed at a gender balanced market oriented agricultural development strategy

4.4.5 Conducting studies on the interrelationship between HIV/AIDS and agricultural vis-à-vis the priority commodities

In line with the project's strategy to integrate HIV/AIDS considerations in the design and implementation of project, the following activities will be undertaken:

- Studies on the current status of the relationships between HIV/AIDS and production of priority commodities in PLSs (for guidelines on such studies see **Annex 3**). These will be followed by stakeholder workshop in each PLS to discuss findings from HIV/AIDS assessment in each PLS and their implications for project activities.
- Case studies on the technological, institutional and socio-economic aspects influencing the spread of HIV/AIDS in PLSs (starting in year 2).
- Comparative analysis across PLSs of the relationship between HIV/AIDS and agricultural production, and factors influencing it. Such analysis will contribute to developing regional and national strategies aimed at reducing the risk of HIV/AIDS in a market oriented agricultural development strategy.

The project implementation schedule (**Annex 9**), budgetary details (**Annex 10**), declaration of contributions (**Annex 11**), procurement plan (**Annex 12**) and subcontracting plan, capacity building plan and micro-finance plan (**Annex 13**) are attached.

5. Strategy for results-based management and performance measurement

5.1 Project performance measurement framework

Measuring the performance of the IPMS Project with respect to progress made toward the achievement of developmental results will follow closely CIDA guidelines on the use of the Project Performance Measurement Framework (PMF). The PMF highlights results expectations at the impact, outcome and output levels. It then indicates performance indicators (PIs) used to measure achievement of results expectations as well as indicators for the Reach of the Project and for human and financial Resources required to implement the Project. Data sources, methods and techniques of data collection, frequency of data collection, and the responsible body for collecting, analyzing, reporting and making decisions, if they are required, are all described in the PMF. A detailed PMF for the IPMS Project has been completed and is presented in **Annex 14**.

It is important to note that the performance indicators in the PMF have been selected carefully to measure change with respect to the key results expectations at the outcome level of this Project. PLS have been selected to measure change with respect to developing a functional knowledge management system that highlights institutional innovations and appropriate technologies; to achieving a stronger institutional and organizational support system at all levels and across all sectors that supports improved agricultural productivity and production, and thus to achieving market-led agricultural development. PLS have also been selected to capture changes with respect to gender equality and women's participation in markets and other economic activities; with respect to HIV/AIDS, especially behavioral and attitudinal changes; and with respect to the adoption of methods and techniques to avoid or mitigate harmful environmental effects. Equally important is the use of PLS in the PMF to capture the voices, perceptions and judgments, of the beneficiaries of the IPMS Project to ensure that, in their opinion, they have enhanced their capacity to improve agricultural productivity and production and to adopt new strategies, technologies and processes introduced by the Project that will help them to improve and sustain their livelihoods. The ultimate beneficiaries in the IPMS project are men and women farmers and the immediate beneficiaries are public and private institutions and organizations serving the farming community in particular and the agricultural sector in general.

5.2 Performance measurement strategy

Data collection methodology

Data collection will be an important feature of the IMPS Project for a number of reasons:

- To measure progress made towards the achievement of developmental results.

- To identify institutional factors and processes crucial for market-led development of the agriculture sector and of the rural population.
- To provide an organizational learning tool for the IMPS Project Team and for those organizations and institutions that are the Project's delivery partners and stakeholders; and
- To capture lessons learned so that innovative technologies (products, methods and processes) and innovative institutional processes and arrangements ("institutional innovations") are identified and applied in order to improve and sustain the livelihoods of rural households, thus contributing to the reduction of poverty and food insecurity.

The IPMS project in collaboration with stakeholders, will select priority commodities based on the main farming systems (e.g., teff, dairy, pulses or coffee) identified in ten different Pilot Learning Sites (PLSs) which are *Woredas* (districts) in order to measure change at the household (HH) level within the ten PLSs. It should be noted that the target areas or farming systems may not necessarily cover the entire geographical area of the PLS or *Woreda*, as some parts of some of the PLSs are not in the major farming systems identified. These target areas or farming systems will comprise those households (HHs) that will be served by a functioning Farmers Training Center (FTC) and those HHs that are within the same target area or farming system but who are not served by a functioning FTC. This approach will allow the project to capture the differences and to measure the changes that take place in those HHs currently served by the FTCs, one of the project's main delivery mechanisms for knowledge and technology transfers, and in those HHs that are not served by FTCs. Additional FTCs and their "command areas of HHs" which are either constructed or planned for in selected target areas or farming systems of the Project but which are not yet functional will be added to the Project's data collection approach if and when these FTCs become functional during the implementation life of the project. In the PLSs where FTCs are currently functioning in all PAs, differences in the impact of the interventions will be compared based on the intensities with which the project interventions will be implemented, in addition to factors that are not controlled by the project.

Data Collection Focus

The IPMS project will focus on introducing and/or strengthening market-oriented commodities or technologies and innovative institutional processes and arrangements (institutional innovations). These market-oriented commodities or technologies and institutional innovations will be targeted at existing institutions and organizations for extension, input supply, finance and marketing in the ten PLSs. Innovations will include within and between institutional processes and arrangements. Both government and non-government institutions will be considered, emphasis will be put on innovations in both institutions and organizations in line with Ethiopian Government's strategies. The Project will make knowledge on market-oriented commodities, technologies and institutional innovations accessible for the institutions, organizations and communities served by the Project, in

partnership with national and international agricultural research and development organizations.

Data will be collected on three main areas, taking into consideration the above focus of the Project and its desire to improve the livelihoods of rural HHs:

- Institutional and organizational infrastructure development (private/public) and service delivery;
- Adoption and impact of technologies and commodities and
- Community or HH livelihood status and development
- Market participation (commercialization).

A baseline will be established during the initial stages of the Project implementation period. Data collection will subsequently take place at regular intervals during Project implementation, but at a minimum it would take place every six months to allow for six-month and Fiscal Year reporting. The frequency with which each PI will be collected and the roles and responsibility for doing so are indicated in the PMF.

Data will be collected at the District (*Woreda*), village (*Kebelle*) and community or HH levels and will be grouped by the main farming systems found in each PLS, as noted earlier. Data will be geo-referenced to allow for spatial analysis, whenever possible. Furthermore, all data will be disaggregated by gender and will also be sensitive to cross-cutting themes of gender equality, HIV/AIDS and the environment, whenever possible.

The same data sets mentioned above will be used and analyzed to identify institutional factors and processes crucial for market-led development. For this purpose, a spatial analysis of institutional infrastructure and service delivery will be conducted to ascertain its effect on commodity and technology adoption and on community and HH livelihood status and development. This approach is based on the hypothesis that the progress and effects of commodity and technology adoption as well as community and HH livelihood development is expected to differ across the villages within a PLS, based on differences in institutional infrastructure and service delivery.

The same data sets will also be used in the third, fourth and fifth implementation year of the Project to identify key development factors supporting market-led development across PLSs. As it may be apparent, data requirements will possibly exceed those considered “normal” for performance measurement in other projects in order to meet the above mentioned analytical objectives.

Data Collection Approach

The Project will endeavor to use simple, affordable and cost-effective methods and approaches for collecting data by utilizing to the fullest extent possible data that are being collected already by others, such at the Office of the Agriculture and Rural Development (OARD) at the *Woreda* level. While the Project will use existing data collected by public and private institutions and organizations at the *Woreda* and Regional levels, the project will also

undertake its own data collection in order to meet its own specific data requirements for collecting HH as well as institutional and organizational data at the community, *Woreda*, Regional and Federal levels.

The Project may also request *Woreda* officials in the 10 PLSs to undertake additional data collection required to measure specific changes brought about by the Project. Since data are already being collected at the Kebele level down to the cell level in communities, the Project will assess with *Woreda* officials the possibility of using existing data collection system to collect data needed to measure performance in the Project.

Training of *Woreda* officials in methods and techniques of data collection by Project personnel and the provision of computer hardware and data processing software by the Project may be required to strengthen existing data collection systems and to ensure the timeliness and integrity of data collected within *Woreda* offices. The Project may, however, develop its own data collection system if the existing data collection processes at the *Woreda* level appear too weak to collect data in a timely fashion that is needed to measure progress in the Project.

Data Collection Agents

The Project will designate one of the senior members of the IPMS Project Team to act as the Performance Measurement Officer (PMO) for the Project. This will be an additional task to the regular duties of the team member. The PMO will be the “focal point” for performance measurement in the IPMS Project. He/she will be responsible for ensuring the correct and timely application of the PMF, including the collection of baseline data, and for regular reporting on the progress made toward the achievement of results, under the supervision of the Project Manager. The PMO will be assisted by a Performance Measurement Assistant (PMA) who will work on a full-time basis to assist the PMO with the collection and analyses of data and reporting on performance.

The Project will also use IPMS staff members located in each *Woreda* or PLS for data collection and reporting as required. There will be a Research and Development Officer (RDO) at each PLS, assisted by a Research and Development Assistants (RDA), who will be involved in most of the data collection for the performance measurement. RDOs will have funds to employ enumerators if and when required. Specialized staff from partner institutions, in particular the International Food Policy Research Institute (IFPRI), will also help with data collection or with the provision of relevant data being collected already by them.

5.3 Performance information

Performance information is very important for the IPMS Project. Performance information will support quality improvements in Project implementation and continuous organizational learning; support timely decision-making and

adjustments to Project implementation; satisfy public accountability; and improve performance reporting.

Performance information in the IPMS Project will be generated in the following manner. The Project will carefully plan each year for the achievement of results at the output and outcome levels. Project implementation will follow an iterative approach for generating output and outcome level results. This means that there will be a cycle of activities or operations that produce or generate outputs over each of the five years of the Project implementation period. These outputs will combine together over time to generate outcomes during and at the end of the Project. During these iterative Project implementation cycles that generate outputs and outcomes, the Project will undertake continuous performance measurement of the Project using quantitative and qualitative PLS to capture lessons learned about what is working and what is not working with respect to achieving results in the Project. This continuous performance measurement approach will enable the Project to clearly understand exactly what progress it has achieved at any point in time in Project implementation. It will also enable the Project management to clearly understand exactly what, if any, adjustments to its Project implementation strategy must be made so that the Project can stay on track to achieving its targets of change at the outcome level. Information gleaned from the continuous performance measurement approach will also help Project management to develop institutional innovations and creative solutions for solving problems and for overcoming roadblocks that may be hindering progress made toward the achievement of developmental results in the Project.

So the process of Project implementation will be one of iterative Project implementation to generate outputs, collect data and lesson-learned through continuous performance measurement, review progress quarterly or every six months but no less than every year, then make adjustments to Project implementation strategy and Annual Work Plans based on lessons-learned in the previous year(s) in order to generate output level results desired in the next Project Year. This process will continue on until outcome level results are achieved when the Project comes to an end.

One of the enormous benefits that the IMPS Project will derive from using performance information as a tool to enhance its organizational learning will be the ability to capture in a timely manner lessons learned concerning, e.g., market-selected commodities or technologies and innovative institutional and organizational processes and arrangements. Performance information collected and analyzed on a regular basis, will enable the Project to ensure the achievement of its four outcome level results.

6 Project organization and management

6.1 Project governing agreements

The project organization and management is governed by two formal agreements i.e. the Letter of Agreement (LoA) signed between the MoARD and ILRI and the Contribution Arrangement (CA) which is signed between CIDA and ILRI.

In the LoA it is stated that the Government of the Federal Democratic Republic of Ethiopia officially submitted the IPMS Ethiopian Farmers project proposal to the Canadian International Development Agency for funding. The LoA furthermore states that the MoARD is the “Governing Authority” and that ILRI was appointed by the MoARD as the Project’s “Implementing Agency”.

This LoA spells out amongst others i) the overall objectives of the project, ii) tasks and responsibilities of the governing authority (MoARD), iii) tasks and responsibilities of the implementing agency (ILRI), iv) the project steering committee iv) the project implementation committee, v) the project technical committees and taskforces, vi) the project manager.

CIDA has approved and agreed to this arrangement and entered into a CA with ILRI. The project proposal was attached to the CA and outlined in more detail the implementation an governing structures of the project.

These agreements formed the basis for the development of the more detailed project organization and management described next.

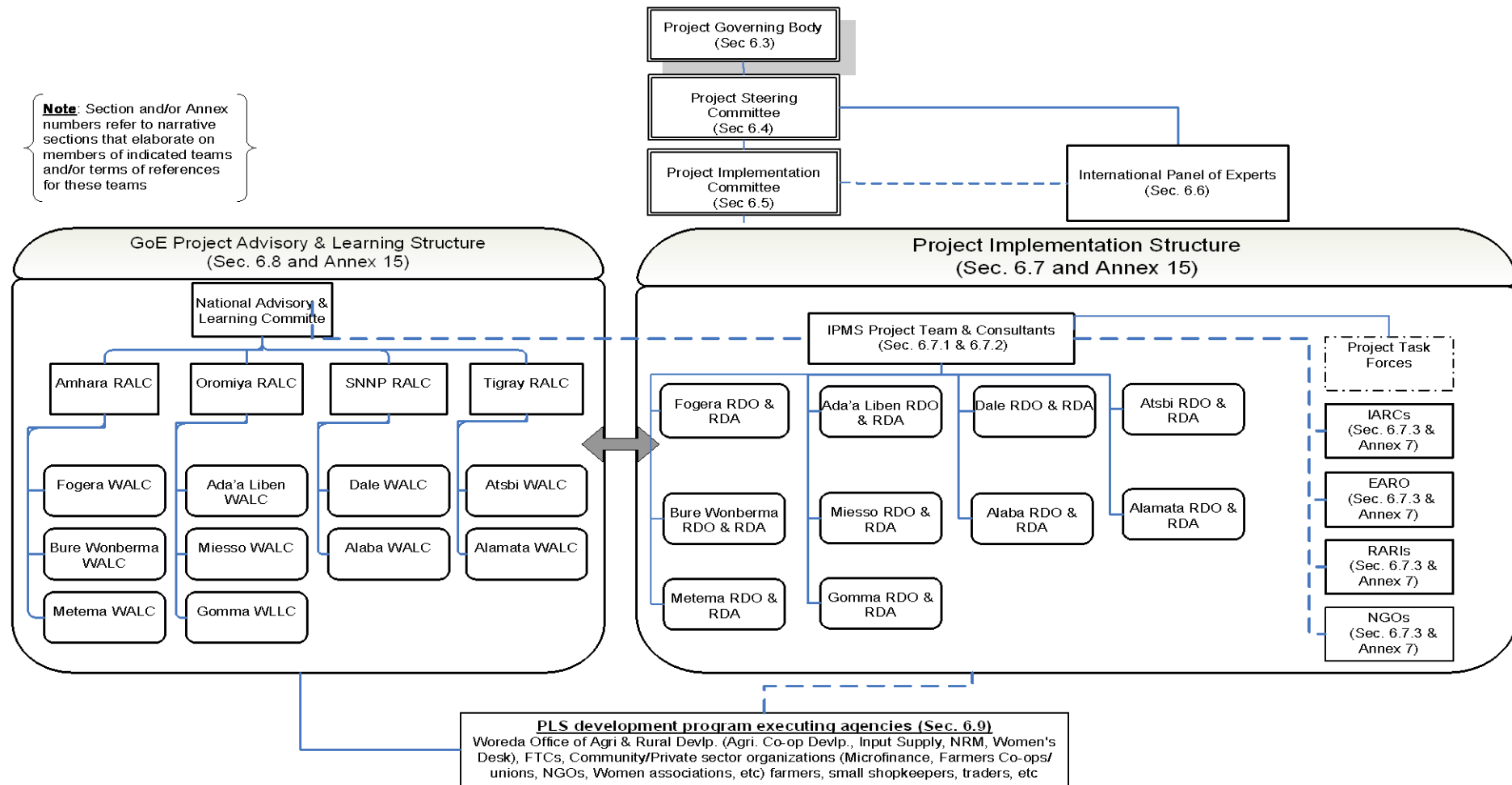
6.2 Project organization

The project organizational structure is shown in the chart and has the following elements:

- Governing body
- Steering committee
- Implementation committee
- Implementation structure
- Advisory and learning structure
- Market led program execution

Improving Productivity & Market Success of Ethiopian Farmers

Project Organization chart



6.3 Project governing body (PGB)

The project will be overseen by a Governing Body comprised of the State Minister of Agriculture and Rural Development (Chair), the Director General of ILRI and the Head of CIDA in Ethiopia. The Project Manager will serve as Secretary to the Governing Body. It is proposed to include EARO in the governing body, subject to approval from the Ministry of Agriculture and Rural Development. The Governing Body will provide overall guidance and oversight to the Project.

6.4 Project steering committee (PSC)

The project will have a Project Steering Committee (PSC). This committee will be comprised of the ILRI Deputy Director General-Research (chair), the CIDA project director and 4 senior staff members from the MoARD including i.e. the Head of Extension and TVET Department, the Head of the Planning Department and a representative from the State Ministry of Natural Resources and the State Ministry of Agricultural Marketing. It is proposed to include EARO in the Project Steering Committee, subject to approval from the Ministry of Agriculture and Rural Development. The Project Manager will serve as secretary. The project steering committee will receive and approve annual work plans and oversees implementation of the Project, commissions external reviews, oversees dissemination of Project results and monitors progress.

6.5 Project implementation committee (PIC)

The project will have a PIC comprised of the two main collaborators i.e. the MoARD and the ILRI project team. The MoARD has assigned four senior staff members (one for each of the project components) to work along side the project team on a part time basis. It is proposed to include EARO in the Project Implementation Committee, subject to approval from the Ministry of Agriculture and Rural Development. In line with the overall project design, the MoARD staff has been assigned in support of knowledge management, capacity building, extension (sustainable livelihood development) and policy/institution development. During the project planning phase, these members have been involved in the planning of Pilot Learning Site programs as well as the development of the Federal and Regional activities of the project components.

Special advisors/experts may be invited to participate in PIC meetings as needed.

The main task of the PIC is to prepare the Project Implementation Plan and the annual work plans for submission to the PSC. In order to prepare the PIP and annual workplans, the PIC will be advised by the project advisory and learning committees, the project partners and the annual performance review meetings.

6.6 International panel of experts

A panel of international experts comprised of international experts, will meet once a year to review progress, share experiences from other countries, disseminate lessons and provide professional and technical guidance to the project. A similar structure has been developed for ILRI i.e. the Science Council and it is proposed to draw members from this council for this panel of experts. The panel members will furthermore be used to review strategic documents during the year. In the panel we will include an expert on institutional capacity building especially innovative technology transfer methods.

6.7 Project implementation structure

The project implementation structure consists of an IPMS team (including consultants), and partner organizations.

6.7.1 Project team

The ILRI project team will consist of an Addis Ababa based team and four Regional teams (Amhara, Oromia, SNNPRS, Tigray). The ILRI Addis based Core Team will consist of the following persons. A team leader, knowledge management/IT expert, capacity building and innovation specialist, technology dissemination expert, policy/institution specialist, a program assistant, one database management assistant, one market/policy/institution research assistant, one technology research assistant, one performance measurement assistant, one GIS officer and one GIS technician, one secretary, and 2 drivers. (see **Annex 15** for a job description of the senior positions).

The PLS based ILRI teams will consist of a Research and Development Officers (RDO), a Research and Development Assistants (RDA, in principle, one each per PLS. Within each Region, one RDO will act as the project's representative to the Region and based at the capital of the Region. He or she will also take care of the PLS nearest to the regional capital.

The main tasks of the IPMS team will be to:

- develop/modify (annually) the design of the project component at the PLS, federal and regional level, including methodologies for project implementation.
- provide technical assistance/guidance to the implementation, including capacity building.
- monitor and evaluate and conduct studies with the aim of adjusting and developing recommendations for technology innovations and institutional innovations in collaboration with the project's advisory and learning structures.

6.7.2 Project consultants

During the planning phase the project recruited consultants in the following fields: gender analysis, environmental assessment, HIV/AIDS analysis and RBM framework development. The consultant will assist the project in

developing methodologies and guidance in their respective areas of expertise and contribute to capacity building.

6.7.3 Project partners/taskforces

During the planning phase the project collaborated with various research partners (regional and federal and international) and some private partners to plan activities in the PLS. During the implementation phase, the project intends to work with these partners for the implementation of the project activities. An overview of the potential partner institutions identified so far is presented in **Annex 7**. Additional partners may be identified during the implementation phase of the project.

Project partners will be involved in the following activities:

- Synthesis of knowledge on the priority commodities and supporting NRM technologies, including marketing and input supply systems (component 1).
- Provision/preparation of various extension materials on the priority commodities and supporting NRM technologies (component 1).
- Synthesis and preparation of training materials on innovative technology transfer methods (component 1).
- Synthesis and preparation of training materials on technical aspects of priority commodities and supporting NRM technologies (component 1).
- Synthesis and preparation of training materials on input and output marketing systems for priority commodities and supporting NRM technologies (component 1).
- Conducting training for staff at TVETs, *Woreda* Offices and FTCs in innovative methods of technology transfer, input and output marketing, and technical topics (component 2).
- Provision of demonstration materials on priority commodities and supporting NRM technologies to the TVETS and FTCs (component 2).
- Providing technical assistance for introducing innovative methods of technology transfer, technologies and input and output marketing systems (component 3).
- Conduct/analyse studies and monitor introduction of innovative technologies (component 4), within and across PLS.

The project will also form *taskforces* with partners on a need basis to develop and analyze a common strategy around common themes, e.g.

- Interactive technology transfer approaches

- Crop marketing innovations
- Livestock innovations
- Seed input supply systems
- Livestock service innovations

Such taskforces will be an integral part of the expert consultation meetings mentioned in the knowledge management component (see 4.1.2).

6.8 Project advisory and learning structure

A major component of the project is to develop a learning and advisory structure which “links” the different private and public institutions for the development of the agricultural sector (also see section 4.2.3).

At the National level, the project will establish a National Advisory and Learning Committee (NALC)¹¹ comprised of the senior project team members and the technical committee members nominated by the MoARD, one representative from each of the 4 RALCs, a representative from EARO and representatives of the IARCs and NGOs involved in project implementation. Additional members can be invited to this committee on a need basis. This committee will formally meet once every 6 months to discuss project progress and the lessons learned from the field implementation and advise in project design. An initial ToR has been developed for the NALC during the planning phase. The ToR may evolve as lessons learned on the operation of the NALC are included over time.

At the Regional level, the project has established Regional Advisory and Learning Committees (RALC). Composition can vary by Regional State depending on the organizational structures and the nature of the selected PLS. In general, membership will consist of the Heads of Bureaus (or their representatives) including Rural Development, Agriculture, Cooperatives, Input supply, Micro Finance, Regional Agricultural Research Institute (RARI), and Marketing. Once appointed, RDOs and a representative from each of the WALCs will also be included in the RALC. The RALC is expected to meet 4 times a year, of which 2 times will be organized in PLS. During these meetings members of the Addis based project team will also be present. A ToR was developed for the RALC and is included in **Annex 15**. The ToR may evolve as lessons learned on the operation of the RALCs are included over time.

At the *Woreda* level, *Woreda* Advisory and Learning Committees (WALC) have been established. It is composed of the Heads (or their representatives) from the implementing institutions. These include experts from the project’s research (national and/or regional) and development partners (extension, NGOs, micro finance, marketing, cooperative, input supply, etc). The PLS RDO will act as a secretary to the WALC. The *Woreda* Office of Agriculture and Rural Development will chair the WALC. A ToR for the WALC was developed during the planning phase and is included in **Annex 15**. The ToR

¹¹ The project already established a preliminary NALC during the planning phase but this will be formalized and expanded during the implementation phase.

may evolve as lessons learned on the operation of the RALCs are included over time.

Inclusion of relevant members of the private sector and farmers in these committees will take place once research and development activities on priority commodities have started.

Besides the NALC, RALC and WALC, the project will also have such learning structures with farmers and the various service providers in and around FTCs.

6.9 Market oriented program execution

Although a number of line Ministries (including the Ministry of Trade and Industry) are charged with the responsibility of contributing to its successful implementation, the execution of the market led agricultural development program is the primary responsibility of the MoARD. This will involve the State Ministry for agricultural production, particularly the extension and TVETs main department, the State Ministry for agricultural marketing and State Ministry for natural resources management. Furthermore the planning department of the MoARD, in particular its data processing team will be involved in the project's knowledge management activities, in particular the national resource information center.

Project implementations at the PLS level may be subdivided into three categories i.e. i) public institutions ii) private and or community based institutions iii) communities, farmers, traders and shop keepers.

Public agricultural institutions

The main public actor involved at the Pilot Learning Site level is the *Woreda* Office of Agriculture and Rural development. Within this office, there are a number of sectors (varies between PLS) of which agricultural development is usually the most important one. The subject matter specialists (crops, livestock, natural resource management, extension specialists) together with the field staff (supervisors and DAs) shall be responsible for developing the innovative technology options with the communities and farmers, including the innovative input supply systems using interactive technology transfer approaches. Another important sector is cooperative and input supply. Staff from this sector will be responsible for developing innovative institutional options for input supply and marketing, including the formation of group structures.

Besides the *Woreda* Office of Agriculture and Rural Development, two other public actors will be involved in the implementation of project activities, i.e, the *Woreda* Women's affair desk and the *Woreda* HIV/AIDS desk.

Private sector or community based institutions

At the PLS level, the main private institutions are micro finance and cooperatives/ unions. These institutions are responsible for the implementation of credit, input supply and marketing innovations. Cooperatives in some cases may also be involved in technology innovations.

Besides these two major actors, NGOs, church organizations and associations may in some cases be involved in introducing technology innovations and/or implement institutional innovations.

Farmers, traders and shop keepers

These are the ultimate beneficiaries of the project's innovations and they will be implementing the technology innovations, input supply, marketing and credit innovations.

6.10 Project meetings

6.10.1 Internal project meetings

The project team, including its regional and PLS staff will officially meet once every 6 months. In the initial phase of the project the team is expected to meet more frequently for familiarization and overall direction. The same event will be used for the regional project teams to meet. It is proposed to rotate these meetings between the national and regional capitals over the life of the project. The purpose of these internal meetings is to discuss project administrative and logistical issues as well as issues related to partner's involvement.

The project team at national and PLS level will arrange internal meetings on a weekly basis to discuss the program of work and any issues related to it.

6.10.2 Meetings with project partners

A meeting schedule with project partners will be developed once implementation has started. Such meetings will be used to discuss technical project issues. Once a year, the project will organize a participatory performance review with the main partners and stakeholders. These workshops will be used to absorb lessons learned and to develop an outline of the program of work for the next year (also see section 6.12 on performance review).

6.11 Project communications

The Project's strategy for disseminating lessons learned will comprise a number of dissemination channels. These channels will include, but not be limited to, an annual participatory performance review process, a well developed information and communication technology (ICT) system including a website, a newsletter and varied publications. In order to disseminate information about the project to farmers and pastoralists, appropriate channels, such as radio and/or presentations in traditional farmers associations will also be employed. Awareness booths in traditional weekly market gatherings will also be considered as a means to reach farmers in the *Woredas* (PLS) where the project operates.

As noted earlier, there will be an annual participatory performance review of the Project. At this review there will a wide representation of key stakeholders who will participate in a 4 day review of progress made toward the

achievement of expected results in the Project. This careful and thorough review of the Project, including a review of assumptions and risks, will provide stakeholders with a number of lessons learned with respect to what is working in the Project and what is not. These lessons learned will enable the stakeholders to make recommendations to Project Management for adjustments to project implementation strategies. These also enable to ensure achievement of results as well as to make recommendations to their respective institutions (e.g., MoARD) and to organizations on how they can better support Project implementation (e.g., through policy development, increased local counterpart funds, filling any staff vacancies or even maintaining staff in key organizations serving the PLSs).

A strong and effective ICT system will be developed by the Project which will also be a valuable tool for disseminating lessons learned. A website will be developed for the Project which will, amongst other things, contain electronic publications for use by international, national and regional users. Furthermore, the Project will, in collaboration with Ethiopian authorities, provide support for infrastructure development such as Internet and e-mail connections at the *Woreda* level up to Federal level institutions and organizations. Strengthening the extension system communication capacity will add to the effectiveness of dissemination of technology and lessons learned in the Project. National Agricultural Information Center (NAIRC) to be established at the Ministry of Agriculture and Rural Development will be used as an important venue for the dissemination of lessons learned.

Another valuable tool for disseminating lessons learned will be the numerous publications that will arise from the Project. There will be research undertakings in the Project on the adoption and impact of alternative technologies within and across the PLSs as well as research on alternative and innovative institutional arrangements. There will be initiatives to compile and synthesize environmental studies, environmental assessments and analyses. There will also be gender analyses and studies related to priority commodities, technologies and services as well as studies on the interrelationships between HIV/AIDS and agricultural productivity and production. These research findings, studies, assessments, analyses and lessons learned will be documented in publications that will be shared with all interested parties. Recommendations, policy proposals, suggested technology options and recognized institutional innovations will also be documented and shared with policy-makers and senior government officials in order to improve and enhance the impact of policies and programs within and even outside of Ethiopia.

Some of the *Woredas* in which the project operates can be reached by rural radio stations. Other *Woredas* can be reached with educational radio stations that deliver radio-based distance education programs. Whenever these are the case, the project will take advantage of these media to communicate about project activities as well as knowledge sharing with farmers and pastoralists that are reachable this way. The total target population (those engaged in agriculture within the selected PLS) is estimated to be about one million people living in about 260,000 households. The absolute population of

the *Woredas* where the project operates (agriculture and other) is estimated to be 2.3 million according to the latest government statistics available -- which was from the 2003 Ethiopian Federal and Regional statistical abstracts.

6.12 Project performance reporting

Performance reporting is a very important function for the Project. Not only is it important as an organizational learning tool documenting lessons learned for consideration by Project management and key stakeholders, but it is also important as a tool for providing credible evidence to key stakeholders, e.g., beneficiaries, MoARD and donors, that change, the achievement of results, is taking place as planned, on time and within budget.

The Project will develop formats for six-month and annual performance reports that will clearly report, primarily, on progress made towards the achievement of development results. But, performance reports will also include reporting on the achievement of other results as well, e.g. knowledge management systems, research reports and publications. All performance reporting will be against targets or an expected magnitude of change. Both qualitative and quantitative PLS will be used for setting targets for the end of the Project, for each Fiscal Year and for every six-month.

Performance reports will track changes achieved in the Project with respect to gender equality, environment and HIV/AIDS. Reports will also capture and highlight unintended results or benefits derived from the Project.

To collect, analyze and report on progress made toward the achievement of results, the Project will link data collection points through a data management system that will lead to an on-line reporting system which supports continuous performance measurement.

6.13 Project official reporting to CIDA

To ensure that the funds provided by CIDA are being used in an efficient and effective manner to produce the agreed upon results, ILRI will provide regular written reports to CIDA. The information contained in such reports will be supplemented by the minutes of the Project Steering Committee (PSC) and the Project Implementation Committee (PIC) meetings. The Project reporting requirements include:

- Quarterly Financial Reports
- Semi-annual Progress Reports
- Annual Updated Workplans

Reports of internally and externally commissioned evaluators.

The Project Coordinator will be responsible for preparing and submitting the Semi-annual Progress Reports and the Annual Workplans to CIDA, and ILRI Finance will be responsible for preparing and submitting the Quarterly Financial Reports to CIDA, the financial report included in each Semi-annual Progress Report, and the disbursement forecast included in each Annual Workplan. Two copies of each report will be provided to CIDA.

6.14 Project performance review

Performance Measurement (Internal Monitoring and Evaluation)

The continuous performance measurement approach combined with a planned on-line data collection and reporting system will ensure that the Project is able to undertake good and appropriate internal monitoring and evaluation of Project activities, finances and achievement of results. Quarterly financial and summary narrative reports, six-month data collection and performance reporting on achievement of results and the comprehensive annual performance report will also provide a means for sustaining a good internal performance measurement or monitoring and evaluation system.

Project management is planning to set up a high level international panel of experts (IPE) that would meet once a year or as required to review progress, share experiences from other countries, disseminate lessons learned, and provide professional and technical guidance to the Project. The IPE would include experts in social, gender equality, HIV/AIDS, environment, food security and agricultural issues.

An annual participatory national performance review of the Project is also planned as a means to provide good internal monitoring and evaluation of the Project (this may be scheduled at the time of the regional exhibitions). The review would comprise key stakeholders¹², PLS personnel, Project management and perhaps all or some IPE members. The performance review would be undertaken over a four day process comprising both plenary sessions and four working groups, one for each major result chain. The Review process would assess the level of satisfaction with progress made towards the achievement of output and outcome level results in each result chain. It would review assumptions and risks affecting Project implementation. And it would provide recommendations and suggestions for over coming any problems and barriers to the achievement of results. Any recommendations for adjustments to Project management and/or implementation strategy would be brought before the Project Steering Committee for discussion and approval. After approval has been granted, Project management will be able to include these adjustments in the next annual Work Plan. The project will also explore the possibility for holding regional level annual participatory review workshops of the project starting in the second year¹³.

¹² Key stakeholders: members of Project Steering Committee (PSC), members of Project Implementation Committee (PIC), Members of the NALC, Members of the RALC, Members of the WALC, IPMS staff (both at the PLS and Addis), Federal research system, Regional Research system, NGOs, Community based organizations (CBOs), Representatives of farmer cooperatives, CGIAR centers, Private sector.

¹³ Main regional stakeholders: Selected male and female farmers, Members of the RALC, Members of the WALC, IPMS staff (both at the PLS and Addis), Regional/Federal research system, NGOs, Community based organizations (CBOs), Representatives of farmer cooperatives, CGIAR centers involved in the Region, Private sector, Development Agents.

Another method for ensuring good and appropriate internal monitoring and evaluation is through the use of Participatory Monitoring and Evaluation (PM&E) approaches in target communities and amongst HHs benefiting from Project activities. The Project will consider using the PM&E approach, as required, if it is found that data being collected on HHs and beneficiaries by Project delivery Partners and by Project Staff is not adequately or correctly capturing or measuring the changes in HHs in the target areas nor is it capturing the “voices” of HHs and beneficiaries with respect to their level of satisfaction with benefits received from the Project. PM&E approaches would precede six-month and annual Performance Reports in order to capture and collect data for inclusion into these performance reports.

The Project may consider a Performance Audit as another tool for internal monitoring and evaluation. A Performance Audit may be undertaken in Project Years 2 and 4 to ensure the integrity of data collection if it is suspected that the data being collected and documented by Project delivery Partners is unreliable or incorrectly reported. Involvement of CIDA’s Auditor General Capacity Enhancement (ACE) project, which provides support for such audit work to the Office of the Auditor General in Ethiopia, will be considered.

External Monitoring and Evaluation

Project Management will consider the engagement of a Performance Advisor (PA) to assist the Project to meet the performance measurement and reporting requirements of the IPMS Project and to provide a measure of external monitoring and evaluation. Another important purpose for contracting a Performance Advisor is to build the performance measurement capacity of the IPMS Project’s, Ethiopian Partners and of the Project management team so that they can manage for results in the most efficient and effective manner possible. The Performance Advisor will, inter alia, provide RBM training, assist with the development of a solid performance measurement system for organizational learning and for good and effective project management and will propose a performance reporting system that will provide credible evidence to stakeholders of the Project’s achievement of developmental results.

Good performance measurement allows Project management and stakeholders to know on a regular basis, at least every six months, exactly where they are in terms of progress made with respect to Project implementation plans and schedules. Consequently, external monitors or even evaluators are not really required in this circumstance. However because of the size and significance of the project and the linkages with other GoE and CIDA initiatives, the project will be externally evaluated at least once in the mid-term so that lessons learned can be incorporated into the remaining years of the project.

7 Participation and sustainability analysis

The whole project concept is based on the fact that the project operates within the existing agricultural development framework at all levels.

For knowledge management, the project will be working closely with the MoARD structures to develop agricultural relevant content and application for the newly established multi sector *WoredaNet* program. This includes the establishment of a National Agricultural Information Resource Center. The project will also assist in helping to link key partners such as IARCS, EARO, RARI, NGOs to capture and share knowledge and once such capturing and sharing mechanisms are in place, sustainability is ensured provided sufficient manpower is assigned in the Ministry for the maintenance of the KM system. During the project's life the project will also develop a system in which *Woreda* (PLS) level stakeholders; especially agricultural staff, will be able to electronically share knowledge with international, national and regional level partners. Such knowledge can then be used for the project's primary beneficiaries i.e. farmers, traders, CBO and private sector. The Government already is planning to introduce such a strategy and hence sustainability should not be a major issue once successful models have been developed. The sustainability of other forms of knowledge sharing, such as radio programs, leaflets, posters, exhibitions, story telling, etc. will depend on the government's and public sector willingness to invest in such activities. At present, much of the Government's efforts are focused on electronic knowledge capturing, storing and sharing. The project efforts in non electronic forms of knowledge management should provide a basis for also directing part of future government and private sector funding into "alternative knowledge management systems".

Part of the project's capacity building efforts may be linked to the future Government/donor funded "Capacity building for Agricultural Services" project, which supports TVET as well as FTC capacity building (see section 2.2.2). The project will closely liaise with World Bank/CIDA to ensure sustainability of its efforts. At the TVET level, the project will not only focus its attention on the human component but also on the provision of teaching materials and aids and establish linkages with key suppliers of knowledge i.e. MoARD, IARCS, EARO, RARI, NGOs, and relevant international information providers, to ensure sustainability. At the PLS level, the project will build the capacity of the FTC staff and link them with other development actors. To ensure sustainability of such efforts, the project will also introduce concepts on innovative extension approaches into the TVET curriculum. This would gradually reduce the need for specially funded efforts by projects. To ensure sustainability of a more gender balanced approach to development, the project will especially target female staff for inclusion of (post) graduate training.

The sustainability of the PLS program aimed at technology uptake and innovative institutional arrangement for input supply, credit and marketing by farmers and CBOs and the private sector, will depend on how the project is able to introduce approaches aimed at empowering communities "to do things themselves" rather than being told what to do by the extension services and other service providers. Successful introduction of such approaches by the

extension staff and NGOs is an integral part of the project capacity building program and its success or failure will have a great impact on the sustainability of the PLS program. Once the farmers, community's and private sector actors have been empowered, the role of extension staff will gradually alter into one of facilitating knowledge exchange between the various actors, thus reducing dependency on government and technical assistance. In the longer term, with improved livelihoods through a market led development, segments of the rural population may gradually also be able to start paying for the extension services.

Institutionalization of the lessons learned and generating policy recommendation in particular for a market led development will be a difficult task for the project since this will require more efforts than the project may be able to support at the federal level. To ensure sustainability in this area, the project can contribute through capacity building in policy analysis in the MoARD. Equally important is that the project will link its own efforts with institutions and projects which operate at the federal level in particular the Ethiopian Development Research Institute (EDRI) and the Ethiopian Strategy Support Program (ESSP) and EARO's agricultural market research project.