

## Extension Component

Like the previous years, the Extension Component of AMAREW aims at improving the regional picture in terms of agricultural production and productivity by focusing its activities in the five extension Woredas namely, Lay Gayint, Sekota, Gubalafto, Tehuledere, Sekota and East Belessa. The objectives of the Extension Component of the AMAREW Project are:

- To strengthen the extension system in view of introducing in an integrated way crop and livestock development as well as natural resources management technologies to bring about a significant increase in agricultural production and household income; and
- To promote awareness among rural households about human nutrition, family planning, and HIV/AIDS so as to bring about changes in attitude and practice.

In view of achieving these objectives the following are some of the proposed intervention measures to be implemented in the five pilot woredas:

- Introducing better performing varieties of various food crops, introducing crop varieties of higher market demand (e.g. faba bean, haricot bean, pepper, etc.), promoting horticultural crops production and introducing high value fruit trees along with appropriate management practices such as the use of organic fertilizers to ameliorate soil;
- Introducing different and new improved farm tools and implements such as tie-ridging for moisture conservation as well as cheaper and efficient pumps to promote off-season crop production;
- Introducing and promoting various soil and water conservation measures on communal and farmlands, and promoting water-harvesting technologies;
- Encouraging the use of IPM practices to control pests and diseases;
- Improving livestock management practices especially disease control and forage production;
- Promoting the use of better performing poultry breeds and improved husbandry methods;
- Promoting the use of improved beehives and beekeeping techniques;
- Promoting sustainable fishing methods and improved fish processing and marketing;
- Promoting awareness on issues related to home science, family planning, food habits and HIV/AIDS;
- Organizing experience sharing and study tour for experts, DAs and farmers; and
- Assisting in institutional and human capacity building of the Woreda office of Agriculture and Rural Development.

The 2005 Extension Plan is designed at further pursuing on these activities and improving the dissemination of agricultural and natural resources technologies in the pilot Woredas. This year's plan is

as comprehensive and integrated as possible in view of bringing about a substantial increase in agricultural production and household income of participant farming families in the pilot woredas. Depending on their comparative advantages, the different woredas vary in their emphasis on each of the components, although the emphasis generally on the crop sector.

The general direction that the project follows in its extension approach is in line with the government extension system with some minor operational variations that the Project is encouraging the extension system to adopt, particularly as it relates to beneficiary targeting, to content and extension method selection, and to increasing efficiency and effectiveness of extension interventions. We are now encouraging woredas to adopt watershed based extension system to scale up the success we have achieved in empowering communities in the two pilot watersheds.

### **Brief Description of the Pilot Woredas**

**Lay Gayint Woreda:** Lay Gayint woreda is located in South Gonder Administrative Zone. The Woreda town, Nefas Mewchia, is 175 km east of Bahir Dar. The total area is estimated at 1,519 km<sup>2</sup> with a total population of 210,000 (BoFED, 2002). Ecologically, 41% of Lay Gayint is *Dega*, 31% *Woinadega*, and 28% *Kolla*. The altitude varies from 1,500 to 3,100 meters above sea level. The annual rainfall is marked with erratic distribution, varying from 400 to 1,100 mm.

The Woreda has 44,877 households residing on highly degraded and drought affected mountainous areas. Farmers are mainly dependent on crop and animal production. The major problems limiting agricultural production in these mixed farming systems are shrinking farm size and declining soil fertility, erratic rainfall whose effect is aggravated by lack of drought resistant varieties, weeds, crop pests and diseases coupled with limited access to pest and disease resistant varieties, limited exposure of farmers to improved livestock management and appropriate agronomic practices, scarcity of improved technologies to enhance livestock production, limited experience and inadequate facilities for handling and processing of dairy and beehive products, poor market access for livestock and livestock products, limited experience and inadequate facilities for handling and processing of dairy and beehive products, lack of adequate and conducive credit facilities for smallholders, low quality and scarcity of extension education supporting materials, and cereal dominated food habit of both rural and urban societies. The Woreda Agricultural and Rural Development Office works towards addressing these problems. The planned extension activities aim at addressing some of the bottlenecks so that agricultural production and productivity and household income of rural households will be increased significantly.

**Sekota Woreda:** Sekota woreda is one of three woredas of Wag Hamira Administrative Zone. Sekota town is 435 km North East of Bahir Dar. Agro-ecologically, 58% of Sekotta Woreda is classified as *Kolla*, 37% as *Woinadega*, and 5% as *Dega*. The annual rainfall, which is erratic in distribution, varies between

350 and 550 mm. The predominantly hilly terrain of the woreda seriously limit easy access to the Woreda. The total area of the Woreda is estimated to be 3,962 km<sup>2</sup>, and is inhabited by a total population of 153,670 (BoFED, 2002). About 38,414 rural households depend on agriculture for their livelihoods and cultivate the highly degraded steep slopes. These subsistence farmers practice mixed farming, where crop and livestock productions are managed under the same farming unit. Livestock are particularly important elements.

The major factors limiting crop and livestock production are very similar to those listed as major problems in Lay Gayint woreda. The relative isolation of the Woreda has to a large extent limited farmers' exposure to new technologies and the integration of agriculture with markets. As a result, vegetable and fruit production are extremely under developed. Utilization of water resources is very low. Seeds and planting materials of fruit trees are in short supply. Veterinary services are still so inadequate that wide livestock disease outbreaks are common. Institutions of rural credit are also recent and under developed. The 2005 extension plan of the woreda is designed to address some of these needs.

**Gubalafto Woreda:** Gubalafto Woreda is one of the eight Woredas of North Wollo Administrative Zone, whose administrative town is Woldya. Woldya town is 380 km North East of Bahir Dar, and 521 km North of Addis Ababa. Agro-ecologically, 14% of Gubalafto Woreda is classified as *Kolla*, 49% as *Woinadega*, and 37% as *Dega*. The annual rainfall, which is erratic in distribution, varies widely. There exist a number of mountains that affect the distribution of rainfall in the Woreda. The total area of the Woreda is estimated to be 80,880 ha, and is inhabited by a total population of 162,639. About 45,177 rural households depend on agriculture for their livelihoods. These subsistence farmers practice mixed farming, where crop and livestock productions are managed under the same farming unit.

The major factors limiting crop and livestock production are very similar to those listed as major problems in other pilot woredas. The major roads crossing the Woreda have to a certain extent promoted farmers' exposure to trade. As a result, a number of farmers are engaged in petty trading. Nonetheless, cash crops production is extremely underdeveloped. Vegetable and fruit production are yet to be promoted. Improved seeds and planting materials are in short supply, and utilization of water resources is limited. Veterinary services are poor and inadequate. The institutions of rural credit are also recent and underdeveloped. Natural resources are declining and soil erosion is marked by the ever-expanding gullies. Population increase has entailed shrinking farm sizes and grazing lands. Declining soil fertility, increased incidence of crop pests and weeds, along with cultural and attitudinal baggages have made Gubalafto as one of the food insecure Woredas of the ANRS. This year's extension plan of the woreda attempts to address some of these problems.

**Tehuledere Woreda:** Tehuledere is one of the woredas of South Wollo Administrative Zone. The woreda town, Haik, is located 445 km southeast of Bahir Dar. The total area of the Woreda is 524 km<sup>2</sup>, and the total population is estimated to be 138,900 (BoFED, 2002). The Woreda has close to 25,000 households residing both on valley bottoms and also on degraded hillsides. Like many other woredas, farmers are mainly dependent on crop and animal production although some farmers practice fishing on the two lakes (Ardibo and Haik) located near Haik town. The major factors limiting crop and livestock production are fairly similar to those described for the other woredas. Some of the problems specific to Tehuledere Woreda relate to the under-development of fishery and fish market. The extension activities planned this year are in line with the Woredas potential (beekeeping and fishery) as well as dairy. Due emphasis is also given to crop production and natural resources management.

**East Belessa Woreda:** East Belessa woreda is part of the former Belessa Woreda, and is located in the southeastern part of North Gonder Administrative Zone. The total area of the previous Belessa woreda (currently split into east and west Belessa woredas) is estimated at 3,112 km<sup>2</sup>, with a total population of 238,608 (BoFED, 2002). The estimated population of East Belessa stands at 104,000. Over 90% of the total population is engaged in agriculture. The Woreda has 22,658 households residing on highly degraded and seriously drought affected and mountainous area. The altitude varies from 1,200 to 1,800 meters above sea level. Ecologically, East Belessa Woreda is divided into two zones, Woinadega (10%) and Kolla (90%). The Woreda town, Gohala is 160 km northeast of Bahir Dar.

Though farmers are mainly dependent on crop and animal production, agricultural production is very low and it appears to be heading towards a decreasing trend. Several factors limit agricultural productivity in the woreda, among which are moisture stress (due to erratic rainfall), declining soil fertility, pests, diseases, and weeds. This is aggravated by the lack of seeds of improved varieties. Factors undermining animal production include lack of improved technologies in beekeeping, lack of forage and poor management of crop residues, poor livestock management systems, and lack of improved breeds. Deforestation, cultivation of steep and marginal lands and overgrazing that result in increased soil erosion are major factors limiting natural resource management and utilization. The Woreda Agricultural Development Office has planned extension activities in view of promoting options to improve agricultural productivity and household income.

### **The Planning and Implementation Process**

The process followed in determining activities of the Extension Component is similar to the previous years. One thing that was added to the process this year was the evaluation by farmers and experts of the performance of technologies introduced and the extension methods used to demonstrate these technologies during 2004. Accordingly, the lessons learned were incorporated in the 2005 planning. It

has been agreed that detailed schedule of planned activities and identification of responsible experts for each activity will be made by woredas to building institutional and personal accountability.

Besides, this indicative plan will be critically reviewed and enriched by a forthcoming workshop at Regional level that brings in Regional and Woreda level experts and researchers together, as was done during the 2003 planning. After further consultation with all stakeholders, the detailed planned activities will be refined and agreed up on, subsequently the quarterly distribution of physical and financial plans will be worked out with Woreda Offices.

Though implementation is done by the staff of Woreda Offices of Agriculture, Woreda Extension plans were prepared in consultation with researchers, extension staff of BoARD, and staff of AMAREW. As indicated earlier, BoARD will employ appropriate extension methods to each of the technologies or information to be disseminated.

In each of the pilot woredas, the activities will be implemented in selected three Peasant Associations (Kebeles). The target groups of this project will then be the households residing in these Kebeles. Community representatives will be selected and trained to play lead roles in community organization and in deciding the course of actions to be taken. Baseline data on demographic parameters, assets, agricultural production and household income levels of households residing in these target PAs will be collected during 2005. The information so generated will be used to measure impacts.

### **Monitoring and Evaluation**

As regards monitoring and reporting on the progress of planned activities,

- Experts of the woreda Agricultural and Rural Development Office will meet fortnightly and examine the progress of the project implementation;
- The woreda Office will report monthly to BoARD on progress of project implementation (about the accomplishment of physical plans and the status of financial use) and send a copy to the AMAREW Project;
- Experts from BoARD and AMAREW project will make frequent visits to follow up and provide technical assistance, especially in linking extension with research so that effectiveness of agricultural research and extension in the Woreda will be enhanced.

Besides, as indicated in the Extension Plan of each of the five Pilot woredas, annual review workshops and farmers-day programs will be organized. These occasions should give ample opportunities for all stakeholders, especially farmers, to influence the process and outcome of the extension component. The review/planning workshop at the end of the year constitutes the annual evaluation forum. Further

information on the Performance Monitoring Plans (including activity level indicators) and on Environmental Impact Assessment Report of the Project in general and the Extension Component in particular will be provided early in 2005.

Budget summary for all extension activities by category and woreda is given in Table 10. Details of the work plan for each woreda are given in Annex Tables 9-13.

**Table 10. Summary Budget for the Planned Extension Activities of the AMAREW Project in 2005 (Woredas and BoARD)**

Category	Woredas					Regional BoARD	Total
	Lay Gayint	Sekota	Gubalalfto	Tehuledere	E. Belessa		
Crop	97,530	89,330	143,690	75,546	63,486		469,582
Livestock	48,540	63,600	84,000	51,080	68,385		313,605
Natural Resources	20,000	88,500	78,000	60,958	66,080		315,538
Extension and Home Science	12,269	12,600	13,900	6,000	6,470		51,239
Capacity building	31,000	33,500	23,000	24,500	27,000	15,000*	154,000
PPIM & E **	53,460	55,460	57,400	54,530	52,410	40,000***	313,260
<b>Total</b>	<b>262,799</b>	<b>342,990</b>	<b>399,990</b>	<b>272,614</b>	<b>283,831</b>	<b>(55,000)</b>	<b>1,617,224</b>

\* Fund for compiling, purchasing and distributing technical resource materials on extension and project management for woredas.

\*\* PPIM&E stands for Project Planning, Implementation, Monitoring and Evaluation.

\*\*\* Fund to organize annual workshop to evaluate project activities and plan future course of action. Also, for periodic monitoring and supervision of Woreda activities, and for experts to provide technical backstopping to Woreda expert.