

### **Success Story 1: Training Workshop on Integrated Decision Support System FtF IL for Small Scale Irrigation (ILSSI)**

The Integrated Decision Support System (IDSS) provides the ability to assess the consequences of technology innovations and policy options aimed at improving income and enhancing nutrition for smallholder farmers. The IDSS concurrently estimates the production, environmental, and economic results of these interventions. Outcomes are modeled at the farm, village, watershed and regional levels. The system is being used to assess the impact of small scale irrigation innovations for multiple locations in the FtF zones of Ethiopia. Similar studies will be conducted in Tanzania and Ghana. As part of its goal of contributing to the enhanced use by smallholder farmers of these practical irrigation systems, ILSSI provides in-country workshops on its assessment methods. The objective is to enhance the awareness and application of these methods for long term use by current and future target country analysts and, through this, to provide sustained capacity to apply these methods to future needs and opportunities for smallholders. Using an initial analysis of the results of the introduction of irrigation systems in the Jeldu woreda of Ethiopia as a case study, Texas A&M modelers conducted a five day training workshop in June 2014 on the use of its integrated decision support system for 65 trainees. Forty five students mostly from Ethiopia, seven females, others from government, international centers, and the private sector participated in the workshop (see photo on the next page). The first half day of the workshop was aimed at administrators who will use the results of the IDSS; the remainder of the training was aimed at current and future analysts. Selected graduate students from Bahir Dar University who received this training will participate in field research on smallholder farms and the application of the IDSS to assess the results of these studies. The initial training, followed by active application of the methods will provide the knowledge and experience to help establish and ensure the application of the IDSS to ILSSI and other studies in the future. As an example of outcomes, as a result of participating in this training, an analyst from the Ethiopian Ministry of Environment and Forest has persuaded the leadership in this ministry to apply the IDSS to assessment of policy options to enhance the sustainable use of natural resources in Ethiopia. A second round of advanced training is planned for February 2015 in Ethiopia and similar workshops will be conducted in Tanzania and Ghana in 2015.



Trainers from Texas A&M University, and trainees photograph, Addis Ababa, Ethiopia June 2014

### **Success Story 2: Assessing Stakeholder Priorities and Planning Interventions for Field Research - FtF IL for Small Scale Irrigation (ILSSI)**

ILSSI identifies promising small scale irrigation innovations and evaluates them through field research, farm family surveys, and modeling of results to evaluate production, environmental and economic consequences. It identifies constraints that limit adoption of technology and proposes solutions. The ILSSI uses a “research to action” approach to research in farmer’s fields designed to ensure relevance and produce usable results that will enhance adoption of the outcomes. Planning and implementation involves a highly participatory process with stakeholders at varying levels of scale. Initial national stakeholder meetings have been held in Ethiopia, Tanzania, and Ghana involving farmers, university faculty, government officials, private sector industry and USAID Missions. Review papers prepared by country university experts assessed the need for small scale irrigation, evaluated recent experiences in the use of various systems, successes and problems, along with of recent results of FtF and other research. This provided an introduction for the national level stakeholder meetings. Deliberations and recommendations from national stakeholder meetings were captured in reports initially drafted by the same national university faculty that later provide leadership in the resulting field research. The process produced an initial product that identified priorities for technologies to be studied along with recommendations for location of research in farmer’s fields. The stakeholder process was continued by consultation with district level experts and officials in government to refine the priorities and most useful locations

along with advice on financing methods for the innovations. This was followed by engagement with community leaders and extension staff to refine objectives through community meetings that explain the objectives and methods for the. From these engagements, candidate farm households are identified. Meetings with farmer families provided an agreement on how they would introduce and use the proposed innovation into their farming system. Stakeholder communication is being maintained through community level observation and interpretation of results in farmer fields, community meetings, follow-on national meetings such as the one held in Addis Ababa in June 2014 and in ongoing electronic communications and meetings with stakeholders at varying levels of scale. Results from field studies are being combined with surveys of farm families in the area surrounding field studies to define factors affecting adoption of results. The interpretation of results is being enhanced by the application of the integrated decision support system (IDSS) which models of the production, environmental, and economic implications of the results. Engagement with same set of stakeholders from farm level upward to regional and national levels uses the IDSS models to scale up and out to identify areas of geographic equivalence at watershed and larger areas where the technology under study might be applied. This stakeholder engagement process from national level to the farms involved in research and from farm to back to national levels ensures that the application and interpretation research outcomes keeps the stakeholder communication intact. It helps ensure the sustainable and enduring application of results for small scale farmers.