



### Feed the Future Innovation Lab for Small Scale Irrigation Trains Ethiopian Ministry officials in Ethiopia

On December 18<sup>th</sup> -29<sup>th</sup> 2017 The Integrated Decision Support System (IDSS) team from The USAID Feed the Future Lab for Small Scale Irrigation at Texas A&M University successfully conducted training for over 55 participants from the Ethiopian Ministry of Agriculture and Natural Resources (MoANR), and, the Agricultural Transformation Agency (ATA) in

Adama, Ethiopia. The training is part of a larger collaboration between



ATA, and Innovation Lab for Small-Scale Irrigation (ILSSI) project at Texas A&M University. In accordance with an MOU between ATA and ILSSI, collaboration between these two organizations seeks to deliver the following:

- a) Identification of water resources and their potential for irrigation,
- b) Promotion of environmentally and women friendly innovations and technologies for irrigation water management (e.g. solar pumps for water lifting and drip irrigation),
- c) Identification of the environmental impact of irrigated agricultural land due to poor water management practices and design and implementation of cost effective drainage systems,
- d) Development of sustainable value chains for high value and nutrition dense household irrigation enabled products, particularly horticulture crops, and
- e) Development of community level watershed management interventions linking socioeconomic and environmental benefits.



Participants for the training were invited from different institutions that engage in agriculture, natural resources, forestry, water, and energy sectors including higher education institutions. They came from regional and federal institutions, and they were selected based on their professional role and interest to apply the skills they plan to learn.

The IDSS training was conducted in three blocks. In the first block (from December 18-20), GIS Application to Water Resources Management was conducted. For this training, experts who apply spatial analysis for water management were selected. A total of 55 participants were trained in this part of the training. Based on after training evaluation, the participants expressed that they received sufficient knowledge and skill to apply GIS in their research and development endeavors.

In the second block (Dec 21-27), three models that are used for integrated decision making on the impacts of water management interventions on agricultural production, environmental sustainability, and household income and nutrition were conducted. The three models were the Soil and Water Assessment Tool (SWAT), Agricultural Policy/Environment eXtender (APEX), and Farm Income Simulator (FARMSIM). The application of the integration of the three models and detailed individual hands-on training on each model (SWAT/APEX/FARMSIM) were conducted during this part of the training. There were 55 participants who attended the IDSS training. According to the after training feedback, the participants reported that they got the necessary skillset to make an integrated decision support system analysis for informed policy formulation and evidence based planning in their respective institutions.

On the third block (December 28-29), AutoCAD Application for Engineering Design, and Advanced Soil and Water Assessment Tool (ASWAT) training were provided independently. There were 18 and 9 participants for the AutoCAD Application for Engineering Design and Advanced SWAT training, respectively. The AutoCAD participants are active water infrastructure designers and the training was vital to excel their basic drafting skills to a higher level. While the Advanced SWAT participants are researchers and delivery specialist who are dealing with uncertainty analysis in water resources systems, program design and project implementation. The Advanced SWAT training was valuable to understand uncertainties in hydrological modeling and their estimations.

More than 55 participants engaged in different components of the 2-weeks long IDSS training, namely SWAT, APEX, FarmSIM, GIS Application to Water Resources Management, AutoCAD Application to Engineering Design, and Advanced SWAT. Most of them attended the first two blocks and more than half attend all three blocks. According to the feedback we collected, most of the participants were satisfied with the content of the training and they expressed their confidence that they will put the training into practice in their respective institutions. The MoANR-SSID director also discussed the content of the training with participants who joined



from the Small Scale Irrigation Development Directorate that he led at the Ethiopian Ministry of Agriculture and Natural Resources. The training was instrumental in planning and executing well-thought policy, project and program implementation at our ministry particularly in relation to GTP-II national plans.

The Director appreciated Texas A&M University's commitment to deliver its promises as of the Memorandum of Understanding. The training enables recipients to make more direct and independent application of the models in the IDSS. He also appreciated the willingness of the Texas A & M team to provide on job training remotely as the participants continue to apply the skills they acquired in the course of the training.

Texas A&M AgriLife Research, Blackland Research & Extension Center in there turn expressed their satisfaction on the success of the training through the Center Director, Mr. Thomas Gerik, and their willingness to assist our government efforts in applying these tools to promote and develop small scale irrigation in Ethiopia. They also expressed their commitment to continue and more good news with possible extension of ILSSI project helps to move forward what reminds to be done. Prof. Srimi, Head, Texas A&M University, AgriLife Research, Innovation Lab for Small Scale Irrigation (ILSSI) Project said in his email to MoANR-SSID Director 'please be rest assured we will be with you and your team all the way to carry out the application of GIS and IDSS tools for all your applications now and in the future. This is just a beginning of very long term relationship from our-side. Looking forward to our continued cooperation in this and next phase of the ILSSI project. "