Climate Change Adaptation and Mitigation (CCAM) Program

Agro-Meteorology Project

October 24 -25/2017
The Role of the Agricultural Transformation Agency (ATA)

ATA is an initiative of the Government of Ethiopia (GoE), established by federal regulation to become a change agent in the country’s agriculture sector.

- Work with various stakeholders to identify a set of targeted and high impact interventions (deliverables) that constitute the agricultural transformation agenda deliverables (TAD)
- Assists deliverable owners to provide accurate reporting on developments related to the TAD;

Support in Defining and monitoring the Agricultural Transformation Agenda

Provide high level implementation support for the implementation of TAD

Implementation support: Provides support to TAD owners in four key areas: (a) Strategy development, (b) Detailed problem solving, (c) Capacity building and (d) Coordination support;

Jointly implementing some specific systemic interventions

Piloting: In a narrow set of prioritized interventions, the ATA works with a partner in the sector to pilot a solution and hand over a successful pilot to partners for scale-up

End-to-end solutions: In an even narrower set of prioritized interventions where there is time urgency and lack of capacity in the system, ATA takes joint responsibility to execute an intervention at scale while building the capacity of the long term owner in the system for hand over.
Systemic bottlenecks  Agro-meteorology

• Lack of access by the Smallholder farmer to agro-met advisories
• Limited capacity of the NMA and the MoANR in the generation and application of agro-met advisories
• Lack of inter institutional operability in agro-met advisory generation, dissemination and applications.
Enhance the ability of agriculture support services to effectively inform the agronomic decisions of smallholder farmers in light of climate change by:

- Building capacity of the National Meteorological Agency (NMA), Ministry of Agriculture and Natural Resources (MoANR) and their regional counterparts to provide tailored climate information and related advisory services to smallholder farmers;

- Developing system(s) for disseminating reliable and relevant climate information for farmers and agricultural extension services; and

- Coordinating of major stakeholders involved in climate information generation, research and extension for an effective agro meteorology advisory service for smallholder farmers.
1.1 Expansion of Meteorological Stations Network

- Procurement and installation of 50 AWS
- Installed AWSs at FTC
- With high precision measurement
- It includes all meteorological parameters to be used for NWP initialization
- The measured meteorological parameters are
  - Wind speed and direction (2 & 10m)
  - Surface pressure
  - Surface temperature
  - Relative Humidity
  - Soil moisture at three depths (20, 50 & 100 cm)
  - Precipitation
  - Solar Radiation
  - Leaf wetness
1.2 Human Resources Capacity Development

- Series of Training conducted/will be conducted to NMA experts
  - Introduction to Numerical Weather Prediction
  - Generation of location specific agro-met advisory
  - Data assimilation to improve the quality of short and medium range forecast
2.1 Human resources capacity development

- Series of training conducted/will be conducted for agricultural extension experts
  - General knowledge on weather and climate
  - Forecast and advisory interpretation
  - to develop agro-met decision support based on the advisory
2.2 Mainstreaming of agro-meteorology in agricultural educational curricula

- Enrich the content of curricula of ATVET and agricultural faculties with agro-meteorology
  - Human Resources Capacity building needs assessment for agro-meteorological information generation and utilization was studied by Loyya Consult
  - Developed training strategy on agro-meteorology
Develop effective dissemination and communication system for Agro-meteorological advisory

- AWS data
- Ground observation
- Satellite & radar data
- Upper air data
- Meteorological forecast
- Meteorological database
- Soil profile data
- Cultivar
- Ecotype
- Agricultural database
- Agro-met solution (advisory development)
- ICT solution (dissemination through SMS or Voice to the farmers and collect feedback)
Stakeholder Coordination

4.1 Agro-met technical taskforce

- Agro-met technical task forces established in July 2015 from MoANRs, NMA, EIAR at National level
  - To add value on NMA weather and climate forecasts and advisories
  - To facilitate the dissemination of the agro-met advisory to smallholder farmers through cascading

- Support the establishment of a national multi-stakeholder agro-met platform for future coordination, knowledge and experience sharing
4.2 Seasonal agro-met advisory forums

- Seasonal agro-met advisory forum conducted for short and main rainy season
- Downscaled Woreda level agro-met advisory developed
- The downscaled agro-met advisory cascaded to the farmers
- Periodic agro-met advisory developed by agro-met technical taskforce (MoANRs, NMA, ATA and EIAR)
4.3 International agro-met conference

- It is annual event
- To share knowledge and experience
- It will be organized by agro-met stakeholders platform after its establishment
Agro-met stakeholders platform

- ToR developed
- It is expected to be endorsed by higher officials of MoANRs, NMA, EIAR, and RBoA
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