



Enhancing National Climate Services (ENACTS) in Ethiopia: A participatory demonstration workshop for Key National and International Development Partners

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Introduction

Ethiopia's National Meteorological Agency's ([NMA](#)) Enhancing National Climate Services ([ENACTS](#)) is a collaborative tool developed by the International Research Institute for Climate and Society ([IRI](#)), [The Earth Institute at Columbia University](#), National Meteorological and Hydrological Services ([NMHS](#)) which is supported by the World Meteorological Organization ([WMO](#)) and international and national partners including the CGIAR Research Program on Climate Change, Agriculture and Food Security ([CCAFS](#)).

Objectives of the participatory demonstration workshop:

- Engaging both national stakeholders and Ethiopia's international development partners on the role that climate services play in climate adaptation
- Exposing participants to NMA's online climate information products
- Obtaining feedback on the different climate information products
- Raising cross sectoral awareness on ENACTS in Ethiopia and expanding the use of the climate information services and products in agriculture-, health- and water-related sectors to build resilience

Outline of the workshop

The workshop introduced the Adapting Agriculture to Climate Today for Tomorrow ([ACToday](#)) project through which ENACTS is implemented in Ethiopia, as well as an overview and demonstration of the ENACTS map room related to climate analysis, monitoring, forecast, agriculture, health and water.

ENACTS is grounded in three guiding pillars: i) improving climate data availability (by building institutional capacity of NMS, ensuring data quality control, combining station data with proxies to fill data gaps (e.g. satellite data) and improving seasonal forecasts); ii) enhancing access to climate information (through the development and use of online tools for data analysis and visualization on the intersections of climate with key themes such as health, water and agriculture); iii) promoting use of climate information (by engaging multiple users through community capacity

building and training, awareness raising and involving users in the participatory development of climate products).

ENACTS' climate information products have been developed and applied through [ACToday](#) which strives 'to create climate service solutions to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture,' closely articulated with [Sustainable Development Goal 2: Zero Hunger](#).

ACToday has created multiple innovations at the nexus of climate services and food systems including ENACTS, climate data libraries and map rooms, forecast suites (e.g. agro-weather advisories), financial instruments (e.g. index insurance, forecast-based financing), nutrition and climate intersections, as well as climate services education and curriculum development. In Ethiopia, the focus of ACToday, by working with both international research partners (e.g. CCAFS East Africa and CG centres) and national organizations (e.g. Ethiopian Institute of Agricultural Research ([EIAR](#)), Ministry of Agriculture ([MoA](#)), National Meteorological Agency ([NMA](#)) etc.), support the modernization of the country's agriculture through: i) creating accessible and actionable climate information tools for policymakers, intermediary decision-makers (e.g. agricultural extension officers) and for users, including smallholder farmers; and ii) developing institutional capacity through participatory trainings and co-production processes.

This approach is embedded through Ethiopia's policy and stakeholder landscape, including institutional actors, sector and national plans, programs, strategies and policies. ACToday collaborates with both key international and national partners in a feedback loop of climate data generation, translation, transfer and use. This includes the National Framework for Climate Services ([NFCS](#)) which involves the creation of climate information and services by academia, government ministries, enablers and non-governmental organizations for farmers, pastoralists, fishermen, traders, vulnerable communities, building and construction industry, tour operators and policymakers, among others, to apply tailored climate services.

Dr. Tufa Dinku facilitated a hands-on participatory demonstration of the ENACTS map rooms, specifically regarding climate analysis, monitoring and forecasts, as well as the nexus of climate, agriculture, health and water. The climate analysis includes historical climate information at the woreda level, while the climate monitoring reflects current climate conditions. The station climate data is bolstered and populated by additional data as it is combined with climate data proxies such as satellite data to provide increasingly robust climate data sets. These are used for climate forecasts and application by multiple users. With regards to the nexus of climate and agriculture, diverse agro-meteorological indicators are gathered to provide climate information, including the number of dry and wet spells, the onset and cessation of growing seasons, as well as the length of the growing period by geography and season. At the intersection of climate and health, seasonal climate suitability for malaria transmission is analyzed using temperature, humidity and rainfall indices across different regions of Ethiopia as well as the Weighted Anomaly Standardization Precipitation (WASP) index. Finally, mapping the nexus of climate and water using hydrological and climate data is



available to approximate climate and water conditions (e.g. water scarcity) across watersheds. It was recommended that the water parameters be customized in the portal.

Participants recommended the establishment of mechanisms for this climate information to reach farmers in a contextualized manner that is understandable at local levels. This will require further communications and outreach efforts to relevant stakeholders. Participants also inquired about the flexibility of the system to incorporate new data, as well as how adaptation measures can be derived from the climate information. Further questions pertained to the NFCS, its ongoing progress, as well as the coordination with ACToday and its partners were also raised and discussed. Regarding the translation and transfer of climate information, participants suggested this process be increasingly participatory. To integrate the ENACTS climate map rooms with the agricultural sector, it was suggested that different agri-parameters be established for agricultural decision-making.

Key outcomes

This participatory engagement helped to: (i) raise the awareness of both national and international stakeholders on the cross sectoral potential of ENACTS' in promoting the use of climate information; (ii) enhance partners capacity in climate information services and the available decision support tools; (iii) contribute to enhancing partners (health, water and agriculture sectors) access to climate information services; and (iv) receive relevant feedback to both ACToday and its partners which are key for further development and contextualization of climate services, decision support tools and products.

As Ethiopia becomes increasingly vulnerable to a changing climate, participatory data tools such as ENACTS will be critical for the country's effort in creating climate-resilient agricultural livelihoods and health systems, as well as ensuring robust capacity development for all institutions and communities involved.

Participants

The participatory demonstration workshop for Ethiopia's international development partners involved the participation of the Food and Agriculture Organization ([FAO](#)) of the United Nations, [Farm Africa](#), Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH ([GIZ](#)), [Oxfam International](#), the International Livestock Research Institute ([ILRI](#)), CCAFS, World Food Programme ([WFP](#)), Global Alliance for Improved Nutrition ([GAIN](#)) and NMA.

The demonstration workshop for national partners involved the participation of the Ethiopian Public Health Institute ([EPHI](#)), the National Disaster Risk Management Commission (NDRMC), NMA, the Ministry of Water, Irrigation and Electricity ([MoWIE](#)), the International Water Management Institute ([IWMI](#)) and the Ministry of Agriculture ([MoA](#)). Both workshops were facilitated by Dr. Tufa Dinku, Research Scientist at IRI, who provided the trainings for international and national partners.





International partners at the NMA-ENACTS demonstration workshop on February 25, 2020. Photo: S. Samuel (CAAFS)



National partners at the NMA-ENACTS demonstration workshop on February 28, 2020. Photo: S. Samuel (CAAFS)

WORKSHOP SUMMARY

CGIAR Research Program on Climate Change, Agriculture and Food Security

