Report on participation at East Africa – Peru – India Climate Capacity Building (EPICC) workshop

2-3 May 2019
Ramada Resort, Jangwani Beach, Dar es Salaam, Tanzania

Background

The overarching goal of the East Africa – Peru – India Climate Capacity Building (EPICC) project is to strengthen resilience against disruptive weather phenomena and climate change at national, regional and local levels in the three participating countries. The project provides an opportunity for the partner countries to reduce the gap between research, policy, business and societal decisions particularly regarding agriculture, hydrology and water resources, and migration issues. Visualizations of climate information is also a key part of the project while capacity building cuts across all the themes.

The EPICC kick-off workshop was held in Dar Es Salaam in September 2018 and the second workshop, held in May 2019, is the subject of this report.

A) Opening

Participants mainly from line Ministries of Agriculture, Water, Migration, Vice President's Office, Prime Minister's Office, various universities and research institutes as well as the Tanzania Meteorological Agency (TMA) attended the workshop. Others included a representative of the insurance sector, project implementers from Germany as well as the WISER programme. A representative from the Prime Minister's office officially opened the meeting.

B) EPICC-Outputs: Climate, Agriculture, Hydrology and Migration

Climate

EPICC analyzes, evaluates and produces a wide range of climate data and information, from in-situ measurements and remote sensing products to medium-range predictions and long-term projections. The climate work package targets experts and other users, supporting local capacities in meteorological services and enabling decision makers to better deal with climate impacts. Observed and projected changes in the seasonality and year-to-year variability of

weather-related variables as well as extreme events are analyzed and connected to water management and agricultural practices. The project also works on the development and testing of customized seasonal predictions across different sectors (climate, hydrology, agriculture) and an early-warning for El Niño events to support stakeholders.

Water

The goal of the hydrological work in EPICC is to support national and local policy- and decision-makers, by analyzing and quantifying impacts of long-term climate change and short-term climate variability and climate extremes on water and related resources and sectors in Tanzania. The work has strong links to the agricultural work package, for example in supporting the development of climate-resilient irrigational infrastructure. The hydrological and water resources model system (SWIM) is adapted and implemented for two watersheds in Tanzania – the Wami River Basin and the Katuma River Basin.

Agriculture

The agricultural work package complements existing agricultural information systems by agricultural crop risk assessments, for changing climatic conditions and weather events including El Niño phenomena. These assessments are developed and implemented in close cooperation with local, national and international experts and other stakeholders from the private and public sectors and the civil society. The focus will be on the key crops of maize, rice, sorghum and sunflower and representative agro-ecological regions of Tanzania. Two modeling approaches, statistical modeling and machine learning techniques in combination with satellite remote sensing data, will be used. EPICC provides quantitative information on crop yields and crop failures incurred by weather events either in the immediate aftermath or even before the occurrence of such an event. The information enables farmers – informed, for example, by ministries and farmers' associations – to adjust their agronomic management practices in order to minimize the scope of weather-related crop losses and to increase their capacity to cope with climate risks. Also crop insurances could be developed and further improved based on the results.

Migration

This work package investigates how different forms of human mobility in Tanzania – short- and long-term migration, displacement by disaster, and planned relocation or resettlement of people – relate to climate change.

Data visualization

For capacity development in Tanzania within the EPICC project, we will provide and evaluate several climate services and visualizations, integrating seasonal forecast, climate, and climate impact modules. The idea is to provide tailored interactive climate data and information for different stakeholder groups, using advanced visualization techniques.

Observations by WISER representative:

i) The project at present is mainly in research mode. The research is being carried out at Potsdam, Germany with each themed area having contact persons who are running various models and relating the same to activities in Tanzania.

ii) The project is still trying to concretize engagement of various partners in Tanzania. Due to the contacts we provided them, they (project) have had discussions with TMA on possible areas of cooperation. During the opening, Dr. Chang'a said the EPPIC would be considered as a contributing partner to GFCS in Tanzania. Other areas of cooperation would be in testing the German climate model to see the extent it can model Tanzania climate. Dr. Changa also indicated that the project was welcome to contribute to availability, accessibility and applicability of Climate Information Services.

iii) In terms of agriculture, Tanzania has 25 strategies and policies covering various aspects of agriculture including climate smart agriculture. Some of these strategies are under review and the hope is that the project can have outputs/evidence, which may be taken into consideration during the review. Outputs from the models e.g. crop yields could also be used to inform import/export of foodstuffs thereby contributing to food security. Outputs could also help in crop insurance since the model being used takes on board many aspects of farming including various inputs (seeds, fertilizers etc.) unlike the current situation that only relies on rainfall index.

iv) In terms of migration, participants indicated that most of the migration affects livestock keepers who relocate in search of grass due to climate variability and change. This has caused conflicts especially in southern Tanzania, which has attracted herds from the north of the country. However, the project at present does not have a livestock package.

I) A lot more work should have gone into scoping and design of the project. It was not clear how research findings would be translated into action on the ground. It was also not clear how co-production/co-design would be undertaken.

II) The project persons from Germany have little understanding of the relevant regional institutions like ICPAC, WMO regional office etc. In addition, they are not well informed regarding other relevant initiatives that are ongoing in the region.

Recommendations on engagement of WISER

i) The project can learn from WISER co-production manual currently under production on how to engage with users of climate information

ii) TMA should take advantage of the paid for stays in Germany to enhance capacities in CIS production

iii) EPICC can also learn from our WISER engagement of intermediaries to help support them on the ground in order to translate any project outputs into useful information through linkages with users

iv) EPICC is keen to mobilize resources (e.g. through H2020 and others). This could be an opportunity for cooperation.

v) EPICC is also keen on publications resulting from research questions. This is an area where WISER could work with EPICC.

vi) User engagement is another weak area I noticed. They can benefit from user engagement activities.