



Drought Early Warning and Forecasting System: Improving resiliency of crops to drought through strengthened early warning within Ghana

**9th meeting of the
CTCN Advisory Board
Bonn, Germany 3-5 April 2017**

The Genesis of the CTCN intervention

- Heavy reliance on agriculture for the national economy and for livelihoods
- Agriculture is predominantly rain-fed making it extremely climate sensitive
- Situation of rising temperatures and decreases in mean annual rainfall in most of the country is expected to continue over the coming decades
- Deepening economic and livelihood vulnerability
- Increased land degradation and desertification
- Current information and early warning systems are insufficient to adequately prepare and cope with the extreme climate events

- Initiated by the Water Resources Commission
- Technical assistance for planning and implementation by UNEP-DHI Partnership
- Starting now and running for 12 months
- Introduce, adjust and validate drought early warning and forecasting technologies to local conditions
- Create stronger collaboration among national and local institutions for drought management and climate resilience of crop production
- Design a roadmap to scale-up deployment of technology with appropriate financing

Objectives and Intended Impacts

- Support farmers with timely and detailed information for them to plan and implement drought management actions to minimise drought impacts
- Enhance awareness and expertise to use spatially distributed drought issues
- Increase the accessibility of drought-related data on relevant near real-time satellite information
- Strengthen institutional coordination for disseminating and using drought early-warning information

Impact 1: Contribution to reduced crop losses and improved livelihood of farmers in Ghana

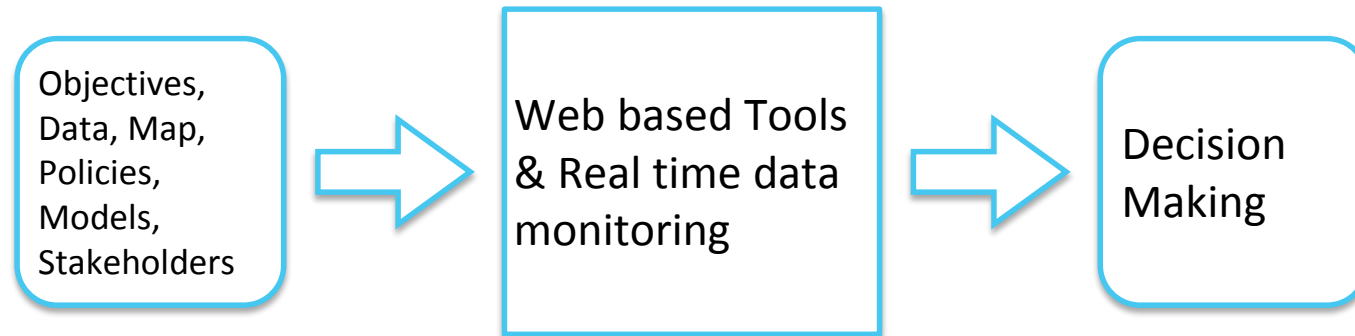
Impact 2: Improved information provision on drought characteristics to help farmers proactively take adaptive measures

Impact 3: Contribution to Sustainable Development Goals (3, 5, 6 and 13)

Expected outputs from the CTCN support:

1. Operational early **drought warning system to be used actively by the stakeholders in the dry season management.** This will further increase the knowledge and awareness of drought management within Ghana.
2. Technologies for evaluating and adapting to climate change impact on drought frequency and duration and eventually on crop production. Output to be used for long term planning within the agriculture and water sectors.
3. The Technical support would also be used to facilitate and seek a stronger collaboration between the regional institutions with respect to climate change adaptation and drought management.

System for supporting decision making by providing actionable information



- Based on freely available near real-time data
- To be adaptable to national and sub-national needs
- To cover different temporal scales (short to long planning horizons)
- To support existing planning methods

Planned activities

- **Activity 1:** *National and regional consultation*
- **Activity 2:** *Technology specification*
- **Activity 3:** *Technology established for local conditions*
- **Activity 4:** *Validation of the technology within an assigned area in Ghana*
- **Activity 5:** *Awareness and knowledge of the use and benefits of the technology*
- **Activity 6:** *Technical training of selected staff within key organizations*
- **Activity 7:** *Dissemination of results and recommendations for scaling up*
- **Activity 8:** *Upscaling and linkage to national implementation*

Lessons learned so far..

- The CTCN has been very supportive during all phases of the project assistance cycle providing concrete feedback in shaping the project
- Useful discussing with NDA (Ghana) and developing the concept to apply for GCF readiness support which is still awaiting response (submitted in February 2016)
- Engage the NDA adequately and on time for GCF Endorsement letter to avoid delays
- Need to enhance collaboration between the CTCN and NDAs to build their capacity on CTCN issues
- Response plan design phase takes long. Regular engagement with Technical expert to ensure quick and timely finalization
- Provide adequate information to stakeholders for a better understanding and for future collaborations



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