**Fifteenth International Workshop Climate Variability and Predictions (15ITWCVP)**

**Accra, Ghana, 11 – 20 September 2023**

**Terms of Reference**

The NOAA’s Climate Prediction Center (CPC) and the DRR Program of USAID have been leading a series of roving annual global climate training workshops since 2009 with WMO and host countries co-sponsorships. The University Corporation for Atmospheric Research (UCAR) typically work with the host country to arrange logistics for the training workshop. The training workshop series are supplement to the NOAA in-house training program at the National Centers for Environmental Prediction (NCEP). The objective is to develop the capacity of National Meteorological and Hydrological Services (NMHSs) around the world, in climate monitoring, forecasting, and to improve climate services.

The 15ITWCVP will take place in Accra, Ghana, and will focus on hands-on operational climate monitoring and forecasting, and the mapping of climate hazards. The workshop will also include discussion on the use of climate forecasts in early planning and early actions.

Participants are from Africa and the objectives are: (1) review the current level of understanding of the climate system and to provide training on advanced climate monitoring and predictions tools; (2) assess the needs and requirements for further climate training; (3) identify the gaps for improving climate predictions; and (4) discuss strategies for future climate training workshops. Sessions are organized around lectures on climate science, climate applications, and practical hands-on-training on the use of climate prediction, diagnostics, and monitoring tools.

The workshop targets meteorologists and climate scientists seeking to gain advanced knowledge and experience in state-of-the art tools for short-term climate predictions and climate monitoring. Instructors are primarily from the U.S., Africa, and Asia, and the topics covered include:

* Climate modes
* Interannual and intraseasonal variability
* Linking climate and weather
* Operational forecast systems
* Use of multi-model ensemble forecasts
* Tools for climate monitoring, diagnostics, and predictions
* Applications of climate forecasts in decision making

The clear benefit and intent of the training workshop is to sustain and improve the knowledge gained from past workshops and to provide participants with an opportunity to enhance their skills in diagnostics and predictions of the climate system and to translate this knowledge into actions to reduce risks from climate extremes.

Following the opening ceremony during the second week of the workshop, there will be a session on early warning systems to facilitate dialogs between stakeholders and providers of climate forecasts to assess gaps in climate services and brainstorm ideas for advancing climate-based early warning systems.