

Systematic observation, data, climate methods and tools - availability, applicability, accessibility

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Abstract

Systematic climate observations are essential for monitoring of the climate system, detecting and attributing climatic change, improving the understanding of the dynamics of the climate system and its natural variability and providing input for climate models. Observations of the atmosphere, land and oceans provide necessary data for that. Each nation hosts a national meteorological centre (and other atmospheric related disciplines) for providing essential networks for the observations. To facilitate and coordinate systematic observations the World Meteorological Organisation (WMO) with its arm, the Global Climate Observing System (GCOS), maintains collaboration among the nations in carrying out the systematic observations. GCOS ensures that the observations and information needed to address climate-related issues are obtained and made available to all potential users.

However several problems are realised over the African continent; inadequate observational networks, lack of data dissemination among the nations, related centres and the international data centres (IDCs), lack of resources to establish adequate observational networks and related facilities, etc.

Therefore, it is by realising these problems, and through the consolidated efforts of the nations, UNFCCC and the WMO-GCOS that nations should solve these problems for improved climate observations and a better understanding and interpretation of our climate.