AN OVERVIEW OF SYSTEMATIC OBSERVATIONS, DATA, CLIMATE METHODS AND TOOLS

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Abstract

Knowledge of temporal and spatial climatic trends is critical for sustainable adaptation strategies in any ecosystem. National meteorological services, regional and world specialised centres are therefore charged with the monitoring of the climate systems through installation of weather observing systems, recording of meteorological and related parameters, exchanging this data, processing the data for both real time and non-real time products. Because of the great need for data exchange, it is imperative to standardise the related operations in order to render all the generated data useful for global analyses. Accordingly, standards for observations, data management, analysis and tools are set and continuous assessments done for their improvements. This unfortunately has a lot to do with individual national capacities and discipline.

The apparent challenges of climate change and the inevitable quest for adaptation to its impacts require adequate and quality data. This is to ensure understanding of the climate system phenomena in order to better manage its bad features and minimise the negative impacts. Whereas a lot has been done especially in the developed world, more is yet to be done in the developing world where resilience to disasters related to climate disorders is still very low. Data from the developing world is so much characterised by both temporal and spatial gaps, while also the data processing facilities (software and hardware) are not modern and robust enough to handle the relatively increasing data volume. This is also aggravated by the high brain drain due to especially economic reasons.

Considering the fact that climate related disasters are to indiscriminately and increasingly cost the international community in terms of life and development, Article 5(c) of the Convention needs to be given increased attention and consideration for the support of the developing world. This will help to improve the monitoring of the climate systems within those countries and provide more and quality data to input in the regional and global climate models. On the other hand it will increase their climate change adaptation capabilities.