

PRACTICAL APPROACH FOR DESIGNING OF OBSERVATION NETWORK OF CONSTITUENTS OF HYDROLOGICAL CYCLE IN THE CONTEXT OF CLIMATE CHANGE

Ashok Kumar Kharya
Director (P&D), CWC, New Delhi
ashokkharya@gmail.com

ABSTRACT

There are evidences of Climate Change all over the globe. The Water Resources sector would be the most vulnerable as the hydrological parameters are going to be affected in varying magnitude due to anticipated climate change. The studies made, so far, are not leading in a conclusive direction in understanding the trends or for making future projections incorporating climatic change, mainly owing to lack of sufficient hydrological data. As all the constituents of the hydrological cycle are going to be affected, it would be necessary to collect the information about them at suitable frequency. To overcome the future uncertainties, upto a certain level, it would be necessary to collect the data from the well thought of locations in all the basins of India for which designing of proper data collection networks is a necessity.

There are several statistical techniques to analyze the existing networks and then designing them in such a manner so that the confidence level on the data can be increased upto desired level. World Meteorological Organization has also suggested norms for designing the network based on the physiographical characteristics of the areas. Network designing principals were also elaborated in the documentation of India's Hydrology Project. The status of existing networks and a practical approach to review and design them in the perspective of climate change has been discussed in the paper.