

Chapter – 4

INITIATIVES IN THE NORTH-EAST REGION

The North Eastern Regional Centre (NERC) of NIH, Guwahati catering for the seven N-E states, Sikkim and parts of West Bengal (Teesta basin) was established in August, 1988 at Guwahati and was working for various water resources problems of the region. Since its inception, the centre has been actively interacting with the various water resources organizations in the states covered under the region while carrying out its studies and activities within the frame work of recommendations of the Regional Coordination Committee in the areas of representative basin study, water quality study, remote sensing application, floods, watershed Management etc.

Considering flood as the major problem in the region, Ministry of Water Resources, Govt. of India decided to rededicate the centre towards service of the region and rename it as NIH Centre for Flood Management Studies for the Brahmaputra Basin (NIH-CFMS). The centre was formally opened/inaugurated on September 27, 2001 by Hon'ble Minister of State for Water Resources, Govt. of India and Secretary, Govt. of India, Water Resources. As per the action plan, the centre works in different areas addressing the various hydrological and water resources problems of the North-East Region.

During the year following studies have been undertaken:

- Technological options for the removal of arsenic with special reference to South East Asia,
- Modelling non-point source pollution,
- Flash flood studies (Jiadhal Basin),
- Flood inundation mapping and flood risk zoning for a reach of River Barak (Harang), and
- Flood plain zoning/flood hazard mapping of rivers of Arunachal Pradesh.

Long Term On-going Studies

Dudhnai river sub-basin, situated in Meghalaya and Assam, was selected for long term representative basin studies. The study was undertaken in the representative basin regarded to be a model for larger hydrologically similar basins for long term fundamental research and experimenting all hydrological procedures with a view to extrapolate or interpolate the results to other hydrologically similar basins.

Basic maps of the basin have been prepared, existing data collected and some long-range data are being collected. An observatory has also been setup and equipment installed in Sarangma within this basin and is maintained/data collected since last 10 years by this Centre. Several rounds of basin investigations for soil, infiltration, water quality, hydraulic conductivity etc. are completed and soil map in 1:50,000 prepared. Six technical reports and two ME dissertations have been completed so far on the representative basin. The basin monitoring through the observatory is continuing.

Technology Transfer:

The scientists of the centre have been involved for wider dissemination and exchange of information to the scientific community and general public of the region.

Organization of Water Resources Day

The Centre actively participated in organization of 23rd Water Resources Day on the theme 'Integrated Water Resources Development and Management' with a Technical Seminar on the theme on 30th May 2008 organized by The Institution of Engineers (India), Assam State Centre, Guwahati.

Participation in Sikkim Glacier Commission

The Govt. of Sikkim has constituted a Commission to study the state of glaciers and its impact on water system in Sikkim. The Commission is entrusted with the task to review the current status of glaciers and snow melt and potential impact of climate change on mountain ecosystem and suggest measures for modern scientific and technological interventions and actions required on human resource generations, training and management that would cater to glaciology and related environmental management.

The Centre is actively participating in Sikkim Climate Change and Glacier Commission meetings. The Centre has also prepared and submitted a chapter on 'Hydro-Meteorological Observations and Modelling of Glacierized Basins' for inclusion in the report of the Commission. The chapter includes details of meteorological parameters and discharge measurement techniques along with modelling basics and data requirements.



A View of Breach of Embankment at Puthimari River during Floods



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