

IMPORTANCE OF IN-SITU DATA ABOUT CHANNEL VARIATION AND FLOOD DISCHARGING PROCESS FOR BRAHMAPUTRA RIVER SYSTEM

GOKUL K BAYAN

Applied Civil Engineering, Principal Scientist, CSIR-North East Institute of Science & Technology, NEIST-Branch,
Itanagar, Arunachal Pradesh, India

ABSTRACT

Sufficient efforts have been made through this paper to emphasise the importance of possessing in-situ data for execution of engineering measures at site to achieve a feasible flood processing and flood controlling habit, in absence of which recently planned projects values for such aspects will turn into useless on time for Brahmaputra valley. In absence of field measuring in-situ data, organisations having the decision making power in engineering aspect, are inclining to use indirectly evaluated empirical base data. Such huge data are coming from the storage of remote sensing aspects on river Brahmaputra and its tributaries from both the countries – India and Bangladesh. In fact such outcomes are highly attracts academic interest only. In modern time it is not impossible to evaluate exact field Channel characteristics data on Brahmaputra at some sected locations to understand its perfect behaviour.

To understand its exposed nature and executed behaviours prototype river works across a sectional profile of a channel is sufficient as proclaims by the logic of scientific research. In consistence to this logic, for an example, efforts have been made since 2010 onward to generate the above. The efforts emphasis some works carriedout in a prototype river study zone established on a reach of multi-reach-flow Brahmaputra channel. It comprises field surveys on the considered reach from time to time, year to year for finding of its hydraulic characteristics, monitoring of flood level and corresponding discharges, etc. The results of such efforts encourages the scientists and engineers in this line to proceed for full evaluation of such most important aspect inscribed by in-situ data on magical Brahmaputra river to achieve perfectly controlled stable Brahmaputra in near future. Scientific research activities so carriedout within this study zone proclaims of field value and its outcomes witnessing the possession of such important data on exercised behaviour of the Brahmaputra River.

KEYWORDS: Flood, Multi-Reach-Flow, Brahmaputra, Remote Sensing, Channel Variation, In-Situ Measure, Engineering Solution