INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

CURRENT PROGRESS

Station Names	Length of time Series
Andhiyarkore	1977-2017
Bamnidhi	1971-2017
Simga	1971-2017
Seorinarayan	1985-2017
Ghatora	1978-2017
Basantpur	1971-2017
Kurubhata	1977-2017
Sundargarh	1977-2017
Salebhata	1971-2017
Kantamal	1971-2017
Kesinga	1977-2017
Tikarapara	1971-2017
Rajim	1971-2017
Baronda	1977-2017
Manendragarh	1987-2017
Rampur	1971-2017

Mahanadi :
Major river in east central India
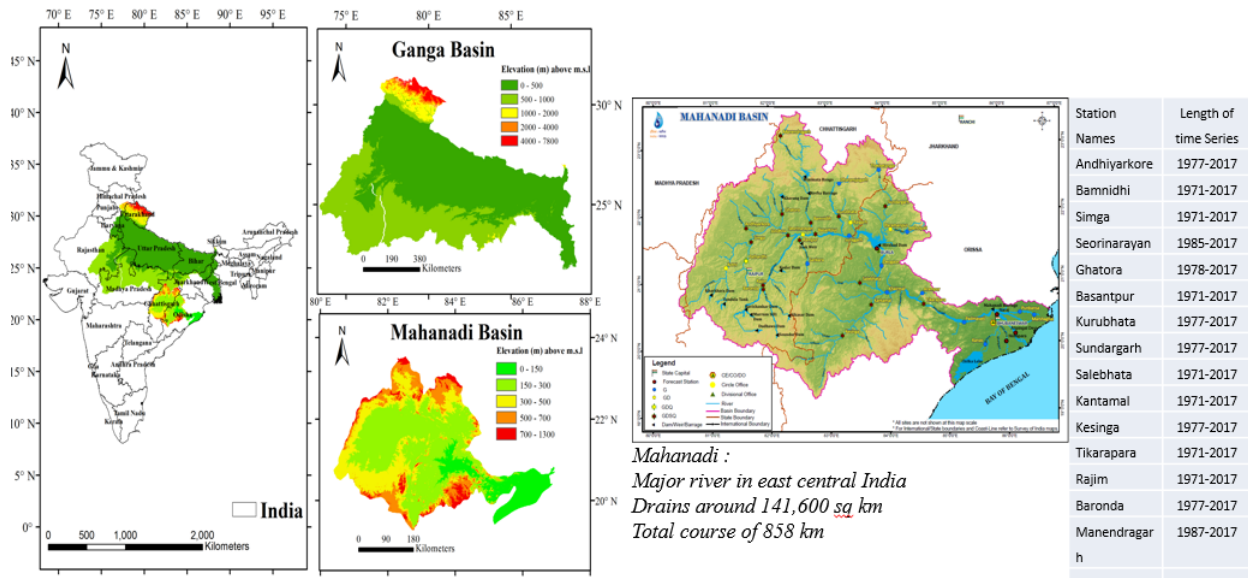*Drains around 141,600 sq km*
Total course of 858 km

Figure: Study region with data availability from Central Water Commission (CWC), India [Gauge (G)=18, Gauge and Discharge (GD) = 3, Gauge, Discharge and Water Quality (GDQ) = 1, Gauge, Discharge, Silt and Water Quality (GDSQ) = 16] (Source : india-wris.nrsc.gov.in)

Figure 1. Study region comprising Ganga and Mahanadi river basins for Early Adopter IIT Bombay.

- VIC model set up complete for the river basins of Mahanadi and Ganga (Figure 1)
- Altimeter locations (virtual stations) have been identified and river heights extracted (Figure 2).
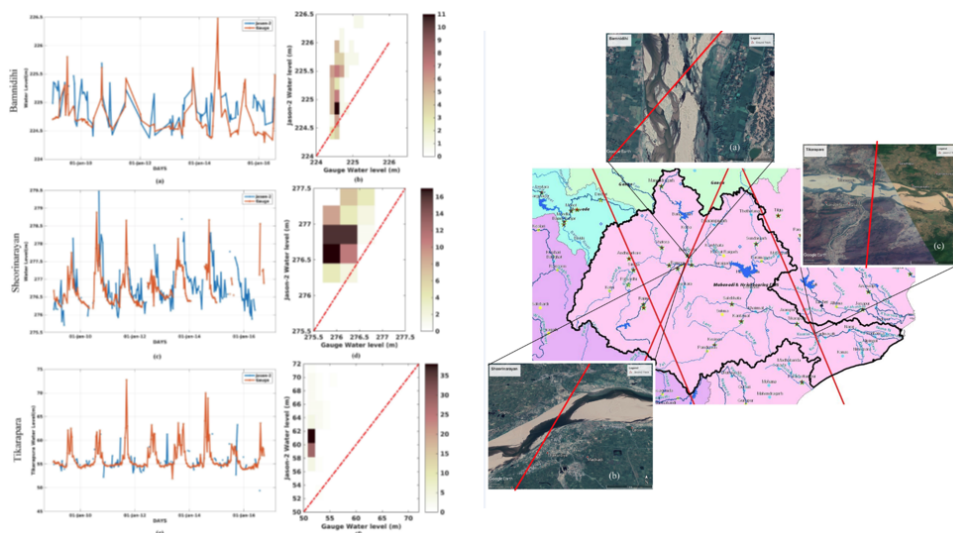

Figure 2. Altimeter (Jason-2/3) virtual stations in Mahanadi river basin

- Input files are being prepared for running the CNES SWOT Simulator over the river basins to generate SWOT like river elevations for assimilation in hydraulic/hydrologic models
- Detailed guidance on the use of the simulator code has been provided to the early adopter (IITB) by CNES simulator experts (Damien and Claire) as well as fellow EA from NASA SPoRT (Nicholas Elmer).

NEXT STEPS:

- CNES simulator will be run on the river basins and the outputs assimilated to assess the value of SWOT in flood modeling/forecasting and urban flood inundation modeling.
- IITB Early Adopter expected to participate in the SWOT Hackathon in May 26-29, 2020 at University of Washington.