

PROJECT DEVELOPMENT DELIVERY OF SPRINT-4

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Project Name	Project – Real-Time River Water Quality Monitoring and Control System

CPCB Real-time river water monitoring and controlsystem:

In order to eliminate problems associated with manual water quality monitoring, Central Pollution Control Board (CPCB) has planned to go for a hi-tech solution. CPCB is planning to install

‘Real Time Water Quality Monitoring Network’ across Ganga Basin for testing ten parameters. The Ganga is the largest and the most important river in India, with its watershed covering 10 Indian states, namely Uttaranchal, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Himachal Pradesh, Rajasthan, Haryana, Madhya Pradesh, and Delhi. Discharge of untreated sewage from urban centers is a major cause of water quality degradation in the river. The total wastewater generation from 222 towns in the Ganga basin is reportedly 8250 MLD, out of which 2538 MLD is directly discharged into the River, 4491 MLD is disposed into its tributaries and 1220 MLD is disposed on land or low-lying areas.

“Yamuna is one of the most polluted rivers in the country. There is a number of inter-state issues and events of episodal pollution. In the case of Ganga, we have to address a large number of petitions, RTIs, VIP references etc and the NGRBA is constituted for large-scale investment towards STPs, etc”, says Dr. R M Bhardwaj, Senior Scientist, Central Pollution Control Board. The parameters that CPCB plans to monitor online are pH, turbidity, conductivity, temperature, Dissolved Oxygen, Dissolved Ammonia, Biochemical Oxygen Demand, Chemical Oxygen Demand, nitrates, and chlorides. All the stations will be operational in real-time mode and the central station will be able to access data from any of these stations. The stations will also be tolerant to extreme environmental conditions in India such as high or low temperatures, high humidity coastal conditions, and high-temperature desert conditions. Moreover, the stations will be such that they won't require manual intervention for at least 5 years, except for routine calibration and battery replacement.

HOW SYSTEM WORKS:

Earlier, with manual sampling we used to get analysis report of one sample in a month. But with real time monitoring, we will get at least 50 and a maximum of 95 data every day. Regular and large number of data will enable us to take decision which can be implemented on time and is effective”, adds Dr Bhardwaj.



