

## Ancient River Unearthed in Ganga-Yamuna Doab | Uttar Pradesh | 09 Sep 2025

## Why in News?

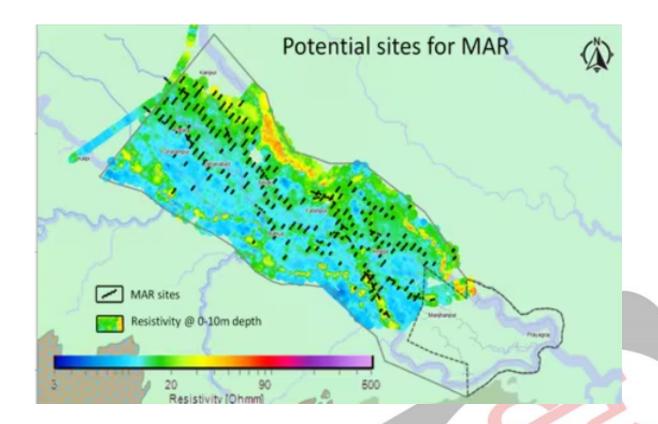
A major **aquifer mapping project** under the **National Mission for Clean Ganga (Namami Gange)** in Prayagraj has uncovered a long-lost ancient river in the **Ganga-Yamuna Doab**, stretching between **Prayagraj and Kanpur.** 

## **Key Points**

- **About:** The **paleo-channel mapping** revealed the river spans around **200 kilometres in length**, about 4 kilometres in width, and 15 to 25 metres in depth.
- Method: <u>Satellite imagery</u> and geospatial data were used to trace the river's ancient route and map subsurface water reservoirs.
- Potential: The ancient river has a water storage potential of nearly 3,500-4,000 million cubic meters (MCM).

## **Aquifer Mapping Project**

- About: The aquifer mapping project, supported by cutting-edge technologies such as smart water management systems, <u>remote sensing</u>, and <u>drone-based monitoring</u>, is playing a crucial role in the sustainable rejuvenation of the <u>Ganga</u>.
- Implementation: The project is being carried out in collaboration with the Uttar Pradesh State Groundwater and Irrigation Department.
- Managed Aquifer Recharge (MAR) Sites: Over 150 MAR sites have been identified, where recharge structures will be constructed to boost groundwater levels and maintain the river's baseflow.
- **Phases:** The project's first phase will focus on developing 20-25 MAR sites. These recharge structures, each measuring 5m × 5m × 3m, are designed to improve groundwater levels, supporting the flow of water in the river.
- **Technology:** With the installation of automatic water-level indicators by the Council of Scientific & Industrial Research, National Geophysical Research Institute (CSIR-NGRI), real-time scientific monitoring will ensure the success of the recharge efforts.
- Significance: These initiatives aim to mitigate climate change and water scarcity while
  preserving the Ganga and other rivers for future generations, providing long-term
  solutions through subsurface reservoir systems and advanced technologies.



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