



Ancient River Unearthed in Ganga-Yamuna Doab

Why in News?

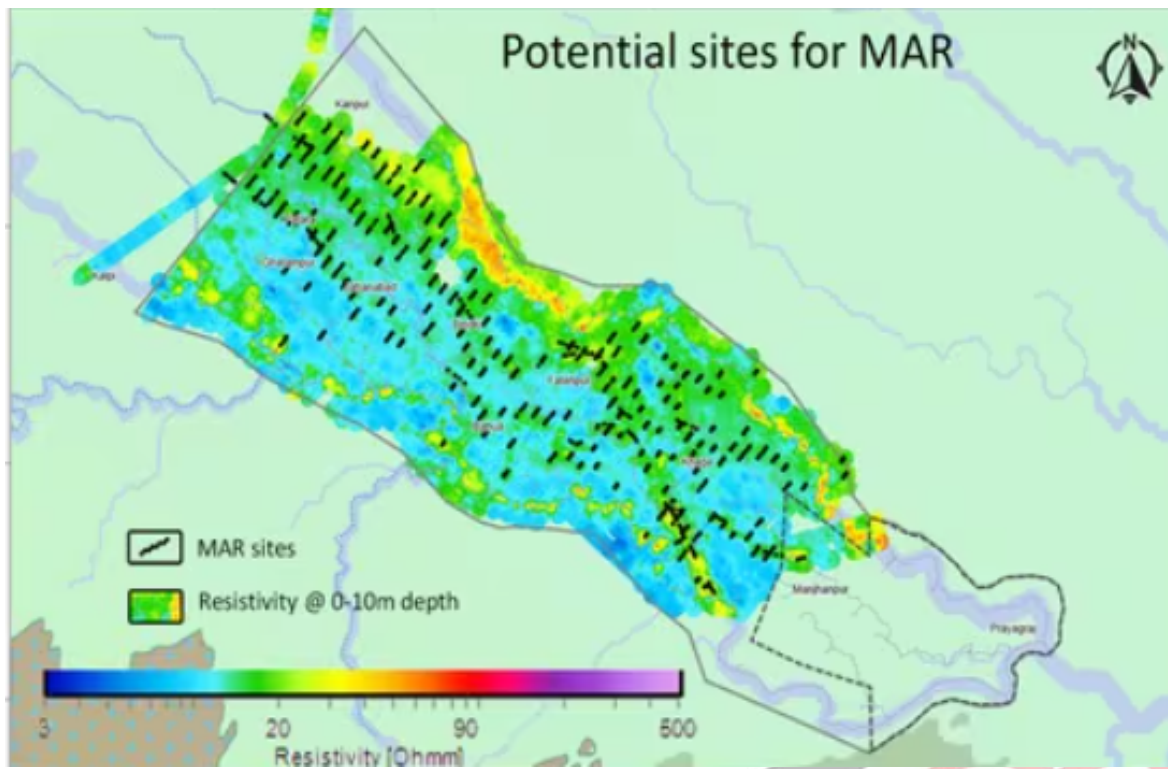
A major **aquifer mapping project** under the [National Mission for Clean Ganga \(Namami Gange\)](#) in Prayagraj has uncovered a long-lost ancient river in the [Ganga-Yamuna Doab](#), stretching between **Prayagraj and Kanpur**.

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:** [Satellite imagery](#) 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, [remote sensing](#), and [drone-based monitoring](#), is playing a crucial role in the sustainable rejuvenation of the [Ganga](#).
- **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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