

National River Linking Project

Why in news?

Recently Prime Minister laid the foundation stone for Ken-Betwa River Linking Project on the occasion of Atal Bihari Vajpayee's 100th birth anniversary.

What is national river linking project?

- **About** - The river linking project, under the National Perspective Plan (NPP), envisions linking of major rivers of India.
- **Significance** - To create additional water storage facilities and transfer water from water-surplus regions to more drought-prone areas through inter-basin transfers

*The concept of interlinking rivers was first proposed in 1919 by **Sir Arthur Cotton**, the Chief Engineer of the Madras Presidency.*

*It was revisited in 1960 by **K.L. Rao**, the then Minister of State for Energy and Irrigation, who suggested linking the Ganga and Cauvery rivers.*

National Perspective Plan

- **The National Perspective Plan (NPP)** is a water resources development plan prepared by the Ministry of Irrigation in 1980.
- **Objective** - Water resources development through inter basin transfer of water, for transferring water from water surplus basins to water-deficit basins.
- **Components** - The NPP has two components:
 - The Himalayan Rivers Development
 - The Peninsular Rivers Development
- **Potential projects** - The NPP identifies 30 river linking projects, with 14 under the Himalayan component and 16 under the Peninsular component.
- **Implementation** - The National Water Development Agency (NWDA) is responsible for implementing the NPP.
- The [Ken-Betwa Link project](#) (KBLP) was the first link project under the NPP to begin implementation

What are the potential benefits of river linking project?

- **Irrigation development** - Expansion of irrigation facilities in water-scarce and drought-prone areas.
 - 25 million hectares will be benefited by irrigation from surface waters and increased groundwater.
- **Flood mitigation** - Reduction of flood risks in water-surplus regions by diverting

excess water.

- **Navigation** - Improvement in regional connectivity through development of national water ways , reduced transportation costs, and promote economic development.
- **Drinking water supply** - Availability of adequate water supply for domestic and industrial purposes.
- **Hydropower generation** - hydropower projects will contribute more than 100 MW in green energy.
- **Employment generation** - This project will create employment opportunities in the rural areas directly and consequentially.
- **Regional equity** - Promotion of balanced regional development by addressing water imbalances.

What are the challenges in river linking?

- **Environmental concerns** - Impacts includes habitat destruction, which threatens biodiversity by altering ecosystems.
 - Sedimentation due to construction of barrage in rivers can disrupt water flow and lead to flooding,
 - The construction of large-scale projects can disturb niche environments, affecting plant and animal species dependent on specific habitats.
- **Climate change** - Due to the impact of climate change most of the river basin of India is becoming water deficient, and transferring water across water basin is a difficult proposition.
- **Centre State relation** -Water is a state subject, which hinders the Union government to execute the project.
- While the Centre government's move to bring it under the Concurrent List may not happen in the near future due to political differences between the ruling party at the Centre and the States.
- **Inter-state river water disputes** - Rivers interlinking programme is being pursued based on the principle of consensus and agreement among the concerned States.
- Recent rise in inter-state disputes hampers the implementation of various stages of the project.

The Interstate River Water Disputes Act, 1956 (IRWD Act) was enacted by Parliament under Article 262 to resolve water disputes that may arise between state or regional governments.

- **Institutional and Policy Barriers** - Current legal mechanisms for resolving water disputes are slow and inefficient.
- **Basin management** - Lack of a robust national framework for cooperative based river basin management.
- **Financial burden** - High costs for infrastructure development and land acquisition.
- **Social issues** - Displacement of communities due to reservoir and canal construction.
- **Impact of Water-Intensive Crops** - The primary objective of transferring water across river basins will be undermined if farmers in water-scarce regions choose to cultivate water-intensive crops.

- Minimum Support Price (MSP) policies encourage water-intensive crops, which undermine the objective of water transfer projects.

What lies ahead?

- Establish a national commission for basin management to:
 - Develop policies.
 - Monitor and manage river basins.
 - Incorporate existing river basin organizations under its ambit.
- Reorient MSP policies to discourage water-intensive crops and promote cultivation practices suited to water-scarce regions.
- A full-fledged architecture to solve inter-state river disputes is prudent to embark on river linking projects.

References

1. [The Hindu Businessline | Challenges in River Linking Projects](#)
2. [PIB |The National Perspective Plan](#)

