## BHAKRA-NANGAL RIVER VALLEY: GEOGRAPHY

**NEWS:** Water sharing dispute between Punjab and Haryana: what happened, why

## WHAT'S IN THE NEWS?

The Bhakra-Nangal Project, crucial for North India's irrigation and hydropower, has become a site of inter-state dispute after Punjab refused Haryana's request for additional water amid low reservoir levels. The issue highlights the need for climate-adaptive planning and reform of BBMB to ensure equitable water sharing.

### Overview: Bhakra-Nangal River Valley Project

- The **Bhakra-Nangal Project** is one of **India's earliest post-Independence multipurpose river valley projects**, conceptualized as early as the **1910s**, and finally implemented after Independence.
- It was designed to serve multiple purposes: **irrigation, hydropower generation, flood control, and water supply** across northwestern India.
- The project involves **two key dams** on the **Satluj River**:
    - **Bhakra Dam**: Located in **Bilaspur district, Himachal Pradesh**
    - **Nangal Dam**: Located **10 km downstream** in **Punjab** and acts as a **regulatory dam**.

### Bhakra and Nangal Dams – Functional Relationship

- **Bhakra Dam** is a **concrete gravity dam**, one of the **highest in Asia**, designed for **hydropower and storage**.
- **Nangal Dam**, downstream, works as a **balancing reservoir**, regulating water released from Bhakra.
- Water is channeled into the **Nangal Hydel Channel**, aiding irrigation and power generation.

### Administrative Evolution of the Project

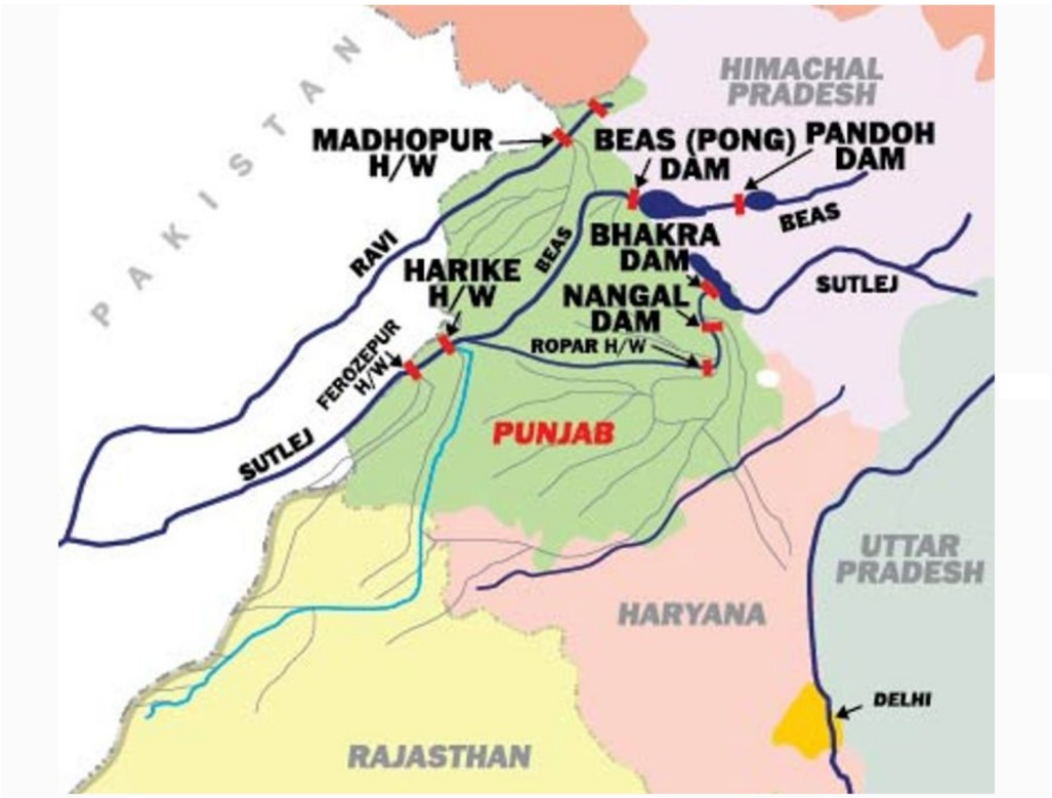
- Originally, prior to state bifurcation, the Bhakra-Nangal Project was managed directly by the **Punjab Government**.
- After the **Punjab Reorganisation Act of 1966**, the **Bhakra Management Board (BMB)** was created under **Section 79** to ensure **equitable administration** for newly formed **Punjab, Haryana, and Himachal Pradesh**.
- In **1976**, the BMB was renamed **Bhakra Beas Management Board (BBMB)** and was also entrusted with:

- Managing the **Beas-Sutlej Link Project** (includes **Pandoh Dam**)
- Administering the **Pong Dam** on the Beas River

- BBMB became responsible for **hydropower operations and water distribution** across **Punjab, Haryana, Rajasthan, Himachal Pradesh, and Delhi**.

**Water Allocation by BBMB**

- At the beginning of every **hydrological accounting year (Sep–Aug)**, BBMB decides water allocations based on reservoir levels and monsoon trends.
- For the current year, allocations are:
  - **Punjab**: 5.512 million acre-feet (MAF)
  - **Haryana**: 2.987 MAF
  - **Rajasthan**: 3.318 MAF
- These allocations influence **agriculture, drinking water supply, and industrial uses** across these states.




**Current Water Dispute: Haryana vs Punjab**

**Haryana's Claim**

- Haryana requested an **additional 4,500 cusecs** citing **acute water scarcity** in **Hisar, Sirsa, and Fatehabad districts**.
- It emphasized **drinking water needs** due to poor monsoon and depleting groundwater levels.

**Punjab's Objection**

- Punjab opposed the request, arguing that:
    - **Reservoir levels in Bhakra, Pong, and Ranjit Sagar dams** are already **well below normal** due to **scant Himalayan snowfall** and reduced inflows.
    - Any extra release could **threaten Punjab's irrigation and drinking water** security, especially in the upcoming Kharif season.

**BBMB's Vote and Fallout**

- A **majority of BBMB member states—Haryana, Rajasthan, and Delhi**—supported Haryana's demand.
- **Punjab rejected the directive**, calling it **"illegal" and "unprecedented"**, and **refused to open the sluice gates**.
- This has triggered a **constitutional dispute**, with Haryana **approaching the Supreme Court under Article 131**, which addresses disputes between states and the Union.

**Constitutional and Legal Aspects**

- **Article 131 of the Indian Constitution**: Grants the **Supreme Court exclusive jurisdiction** in **inter-state disputes**, including **water sharing conflicts**.
- This legal battle is part of India's **long-standing interstate water tensions**, such as **Cauvery (TN–Karnataka)** and **Krishna (AP–Telangana)**.

**Way Forward: Reform and Resolution**

**1. Establish a National Water Commission (NWC)**

- A central, **independent body** for:
    - **Real-time water audits**
    - **Monitoring reservoir levels, rainfall, and snowmelt**
    - **Scientific water allocation based on availability and need**
- This would prevent **ad hoc, politically influenced water decisions**.

**2. Strengthen BBMB Governance**

- Reform BBMB to include:
    - **Independent hydrologists, climate scientists, and conflict resolution experts**
    - **Greater transparency and data-sharing with states and the public**
    - A push toward **consensus-based decision-making** rather than majoritarian voting

**3. Encourage Alternative Dispute Resolution (ADR)**

- Before escalating disputes to the Supreme Court, states should be encouraged to explore:
    - **Negotiated settlements**
    - **Mediation through Inter-State Councils or River Basin Authorities**
    - **Technical advisory panels**

**4. Adopt Climate-Adaptive Water Planning**

- Implement **year-wise adaptive planning** based on:
    - **Real-time satellite and hydromet data**
    - **Seasonal snowfall and rainfall predictions**
    - **Variable reservoir inflows**
- This ensures **flexible and equitable water sharing** based on **actual availability**, not fixed quotas.

**Source:** **https://indianexpress.com/article/explained/water-sharing-dispute-between-punjab-and-haryana-what-happened-why-9977327/**