



# Dagmara Hydro-Electric Project: Bihar

## Why in News

Recently, a Memorandum of Understanding (MoU) has been signed between **National Hydro Power Corporation (NHPC)** Limited and Bihar State Hydroelectric Power Corporation Limited (BSHPC) for Implementation of **Dagmara Hydro-Electric Project**, Supaul, Bihar.

- NHPC is a **Category-A Miniratna Company** under the **Ministry of Power**, in the field of Hydropower.
  - It is the **largest organisation for hydropower development in India**, currently, NHPC has 24 operational power stations with a **total installed capacity of 7071 Mega Watt (MW)**.

## Key Points

- **About:**
  - The project is located **near village Dagmara on the right bank** and **Simri on the left bank**, about **22.5 km downstream of Bhimnagar barrage** on **Kosi river**.
  - It is a **Run-of-the-River scheme**. **Run-of-river hydro projects** use the **natural downward flow of rivers** and micro turbine generators to capture the kinetic energy carried by water.
    - Typically **water is taken from the river at a high point and diverted to a channel, pipeline, or pressurised pipeline** (or penstock).
  - The project will have the **total capacity of generating 130 MW energy**, in which **17 units of 7.65 MW will be installed** for power generation.
  - The estimated **cost of construction of this project is at Rs. 2478.24 crore**.
- **Significance:**
  - It will be a landmark project in the power sector scenario of Bihar as far as green power is concerned.
  - Apart from **generating clean and green power**, the execution will **boost the socio-economic and infrastructure development in the area** and shall **also create employment opportunities**.

## Kosi River

- The Kosi is a **trans-boundary river** which flows through **Tibet, Nepal and India**.
- It has its **source in Tibet that includes the world's highest upland**; it then drains a large part of Nepal before emerging onto the Gangetic plains.
- Its three major tributaries, the **Sun Kosi, Arun and Tamur** meet at one point just upstream of a 10 km gorge cut through the Himalayan foothills.
- The river crosses into northern Bihar, India where it branches into distributaries before **joining the Ganges near Kursela in Katihar district**.
- Its **unstable nature has been attributed to course changes** and the heavy silt it carries

during the monsoon season, and flooding in India has extreme effects.

- The Kosi **carries the maximum amount of silt and sand after the Brahmaputra in India.**
- It is also known as the **“Sorrow of Bihar”** as the annual floods affect about 21,000 km<sup>2</sup> of fertile agricultural lands thereby disturbing the rural economy.



**Source: PIB**

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