



# Subansiri Lower Hydroelectric Project

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## Why in News?

The [Subansiri Lower Hydroelectric Project](#), India's largest hydel project under construction, faced a setback when a [landslide blocked](#) the only functional diversion tunnel and stopped the flow of water downstream of the dam into the **Subansiri River, a major tributary of the Brahmaputra**.

- This resulted in the **river bed drying up and endangering aquatic life**. The incident also raised questions about the safety and viability of the project, which has faced multiple delays and opposition since its inception in 2005.

## What is the Subansiri Lower Hydroelectric Project?

- The Subansiri Lower Hydroelectric Project is a **run-of-river scheme** that aims to **generate 2,000 MW of power** by harnessing the potential of the Subansiri River, which flows along the border of Arunachal Pradesh and Assam.
  - A run-of-river dam is one in which the **flow of water in the river downstream of the dam is the same as the flow of water upstream** of the dam.
- The project is being executed by the **National Hydroelectric Power Corporation (NHPC)**.
- The project involves the construction of a 116-metre-high **concrete gravity dam**, a 34.5-km-long reservoir, five diversion tunnels, eight spillways, and a powerhouse with eight 250-MW units.
  - **Gravity dam** is constructed from concrete or cement, it is designed to **hold back water by primarily utilizing the weight** of the material alone to resist the horizontal pressure of water pushing against it.
- The project is expected to generate around 7,500 million units of power annually in a 90% dependable year.
- The project is also expected to provide flood moderation, irrigation, and drinking water benefits to the downstream areas.
- NHPC Limited commenced construction work of Subansiri Lower Hydroelectric Project in January 2005.
  - However, **due to agitations and protests by local stakeholders**, the project construction work was stalled from December 2011 to October 2019. The project construction resumed from October 15, 2019, after the clearance by [National Green Tribunal](#).

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### Subansiri River

- Subansiri, or “Gold River” is the largest tributary of the Upper Brahmaputra river.
- Emerging from the Tibetan Himalayas, the river flows into India through the **Miri Hills of Arunachal Pradesh**. The significant variation in its topography presents an opportunity for harnessing hydropower potential in the region.

## UPSC Civil Services Examination Previous Year Questions (PYQs)

### Prelims

**Q. Consider the following rivers: (2014)**

1. Barak
2. Lohit
3. Subansiri

**Which of the above flows/flow through Arunachal Pradesh?**

- (a) 1 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3

**Ans: (b)**

