

Ukai Dam

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About Ukai Dam:

- The Ukai Dam, constructed **across the Tapti River**, is the **second largest reservoir in Gujarat after the Sardar Sarovar**.
- It is also known as **Vallabh Sagar**.
- Constructed in 1972, the dam is meant for **irrigation, power generation, and flood control**.
- The **storage capacity** of Ukai dam is almost **46% of the total capacity of all the other existing dams in Gujarat** if put together.
- Having a catchment area of about 62,255 km² and a water spread of about 52,000 hectares, its **capacity** is **almost the same as** that of the **Bhakra Nangal Dam**.
- Ukai dam is an **earth-cum-masonry dam**, the embankment wall of which is almost 4,927 meters long.
- Its earth dam is 80.77 meters high, whereas the masonry dam is 68.68 meters high.

Key Facts about Tapti River:

- It is one of the **major rivers in peninsular India**.
- It is one of the three major rivers (the other two being the Narmada River and Mahi River), which **flows in east-to-west direction**.
- **Course:**
 - **Origin:** It rises in the **Gawilgarh Hills** of the **central Deccan plateau** in south-central **Madhya Pradesh** state.
 - It **flows westward between** two spurs of the **Satpura Range**, across the Jalgaon plateau region in **Maharashtra** state, and through the **plain of Surat in Gujarat state to the Gulf of Khambhat** (an inlet of the Arabian Sea).
 - Total Length: 435 miles (700 km).
- Its **total catchment area** is around 65145 sq. km., out of which **80% lies in the Maharastra region**.
- The basin of Tapi is **surrounded by the Saputara mountain range** in the north, the **Ajanta and Satmala mountain ranges** in the south, and the **Mahadeva mountain** range in the east.
- The Tapti flows roughly **parallel to the longer Narmada River** to the north, from which it is **separated by** the main part of the **Satpura Range**.
- The two river valleys and the intervening range form the natural barrier between northern and peninsular India.
- **Major Tributaries:** The important tributaries of the river are **Purna River, Girna River, Panzara River, Waghur River, Bori River, and Aner River**.

Q1: What is an earthen dam?

Earthen dams are constructed using natural materials such as soil, clay, and rock. These materials are compacted to form a barrier that holds back water, creating a reservoir or lake. Earthen dams can range in size from small structures used for irrigation or water storage to large dams used for hydroelectric power generation and flood control.

Source: Rainfall in Maharashtra, Madhya Pradesh raises water level in Ukai Dam

Source: <https://vajiramandravi.com/current-affairs/ukai-dam/>

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