

# Dams in India

## What is the Dam?

A dam is a type of barrier designed to store water; the resultant reservoir is used for irrigation, generating electricity, etc. Dams are categorized according to structure, intended objective, etc.

- By Structure- Embankment dams, Arch dams, Gravity dams, etc.
- By Purpose- Power generation, Irrigation purpose, Multipurpose, etc.

## Features of Dams in India

There are several benefits of the major dams in India for the inhabitants. Dams provide sufficient water for domestic purposes and industries, and dams in India are advantageous for irrigation facilities.

- The main aim of the creation of dams is to reduce the frequency of floods that occur.
- Dams aid in the navigation of rivers and produce hydroelectric power for the nearby areas where it is situated.
- The biggest dams in India and their tributaries supply water for fishing and boating, which act as recreational areas for visitors.
- Dams help navigate rivers, which is the most inexpensive form of transportation.
- Many industries utilize water from the major dams in India.

## Important Dams in India Under Damodar Valley Corporation

This government organization operates several power stations in the Damodar River in Jharkhand and West Bengal. The dams constructed under this firm are-

- Maithon dam (Jharkhand) on Barak river.
- Konar dam (Jharkhand) on Konar river.
- Tilaiya dam (Jharkhand) on Barak river.
- Panchet dam (Jharkhand) on Damodar river.

## Types of Dams in India and their Formation

Various dams in India have significant importance. Candidates must study this topic when preparing for competitive exams like UPSC. The types of dams are based on the structure given below:

**Arch Dam:**

The dam is a solid concrete dam bent upstream in the plain. It is created so that the hydrostatic pressure pushes against the arch, causing it to straighten and strengthen the structure.

**Gravity Dam:**

Dams constructed from concrete or stone, or brick are gravity dams. These dams in India are developed to hold back water by using only the weight of the material and its resistance against the foundation.

**Arch-Gravity Dam:**

This dam possesses the characteristics of an arch dam and a gravity dam. It curves upstream in a narrowing arc that heads most of the water pressure against the canyon rock walls.

**Barrages:**

A diversion dam in India with a low head comprising several large gates that can be opened or closed to maintain the water passing through.

**Embankment Dams:**

It is a type of big artificial dam. Embankment Dams are formed by the placement and compaction of a complex semi-plastic mound of various soil, sand, clay, or rock compositions.

**Rock-Fills Dams:**

These dams are embankments of compacted, free-draining granular earth with an impermeable zone.

**Concrete-face rock-fill dams:**

The dams are rock-filled with concrete slabs on their upstream face. The design provides the concrete slab as an impenetrable wall to stop leakage.

## Interesting Facts about Dams in India

Mentioned are some fascinating details about India's important dams. Have a look at the table for more information.

Facts	Dams in India
First dam of India	Kallanai Dam (Grand Anicut) on the river Kaveri (Tiruchirapalli, Tamilnadu).
Longest dam in the world	Hirakund dam (Orissa).
Longest dam in India	Hirakund dam (Orissa).
Highest straight gravity Dam in India	Bhakra dam.
The tallest dam in the world	Nurek dam (Tajikistan).
The highest dam in India	Tehri dam (Uttarakhand).

Check out the complete list of dams in India by downloading the PDF from the given link. It will help you understand the topic's relevance for various competitive exams and the scope and mixture of questions that can be asked in the exam.

## List of Dams in India with River and State

Below is the list of the biggest dams in India. Understand the dams, the state in which they are constructed, and the river passing through them.

State	Important Dams in India	River
Andhra Pradesh	Somasila Dam	Penna
	Polavaram Project	Godavari
	Nagarjuna Sagar Dam	Krishna
	Srisaillam Dam	Krishna
Arunachal Pradesh	Kohira Dam	Kohira
Bihar	Nagi Dam	Nagi
	Ranganadi Dam	Ranganadi River, a tributary of the Brahmaputra River
Chhattisgarh	Dudhawa Dam	Mahanadi
	Minimata (Hasdeo) Bango Dam	Hasdeo
Gujarat	Aji Dam	Aji
	Sipu Dam	Sipu
	Mitti Dam	Mitti
	Karjan Dam	Karjan
	Kadana Dam	Mahi

	Sardar Sarovar Dam	Narmada
	Ukai Dam	Tapti
Himachal Pradesh	Chamera Dam	Ravi
	Nathpa Jhakri (Sjvnl) Dam	Satluj
	Pong Dam	Beas
	Bhakra Dam	Satluj
	Kol Dam	Satluj
Jammu and Kashmir	Pakal Dul Dam	Marusudar
	Kishenganga Dam	KISHANGANGA
	Nimoo Bazgo Dam	Indus
	Uri Dam	Jhelum
	Salal Dam	Chenab
	Baglihar Dam	Chenab
Jharkhand	Konar Dam	Konar
	North Koel	North Koel
	Tenughat Dam	Damodar
	Maithon Dam	Barakar
	Panchet Dam	Damodar
Karnataka	Lakhya Dam	Lakhya hole
	Tungabhadra Dam	Tungabhadra
	Almatti Dam	Krishna
	Kabini Dam	Kabini
	Supa dam	Kalinadi
	Hidkal Dam	Ghataprabha
	Hemavathy Dam	Hemavathy
	Bhadra Dam	Bhadra
	Basava Sagar Dam (Narayanpur Dam)	Krishna
	Krishnarajasagar Dam	Cauvery
Kerala	Idukki Dam	Periyar
	Cheruthoni Dam	Cheruthoni
	Kakki Dam	Kakki
	Kulamavu Dam	Kilivillithode
	Mullaperiyar Dam	Periyar
Madhya Pradesh	Ban Sagar Dam	Son
	Gandhi Sagar Dam	Chambal

	Indira Sagar Dam	Narmada
	Omkareshwar Dam	Narmada
	Tawa Dam	Tawa
Maharashtra	Bhatsa Dam	Bhatsa and chorna
	Koyna Dam	Koyna
	Warna Dam	Varna
	Ujjani Dam	Bhima
	Aruna Dam	Aruna
	Upper Wardha Dam	Wardha
Odisha	Hirakud Dam	Mahanadi
	Indravati Dam	Indravati
	Kapur Dam	Kapur
	Podagada Dam	Podagada
	Rengali Dam	Brahmani
	Upper Kolab Dam	Kapur
	Haladia Dam	Haladia
	Lower Indra Dam	Indra
Punjab	Ranjit Sagar Dam	Ravi
Rajasthan	Bisalpur Dam	Banas
	Jawahar Sagar Dam	Chambal
	Mahi Bajaj Sagar Dam	Mahi
	Rana Pratap Sagar Dam	Chambal
	Jaswant Sagar Dam	Luni
	Jakham Main Dam	Jakham (Mahi)
Sikkim	Rangit III Dam	Ranjit
Tamilnadu	Bhavani Dam	Bhavani
	Mettur Dam	Kaveri
	Sholaiyar Dam	Sholaiyar
	Pillur Dam	Bhavani
Telangana	Nagarjuna Sagar Dam	Krishna (Some Part of Dam also in Telangana)
	Srisaillam Dam	Krishna (Some Part of Dam also in Telangana)
	Nizam Sagar Dam	Manjira
	Musi Dam	Musi
	Singur Dam	Manjira

	Sri Rama Sagar (Pochampadu Project)	Godavari
Uttarakhand	Jamrani Dam	Gola
	Lakhwar Dam	Yamuna
	Koteshwar	Bhagirathi
	Ramganga Dam	Ramganga
	Tehri Dam	Bhagirathi
Uttar Pradesh	Rihand Dam	Rihand
West Bengal	Kangsabati Kumari Dam	Kasai

## Largest Dams in India - State and Features

Dams have always been a tremendous reserve for constructively utilizing natural resources. Listed are the largest dams in India with state and features including their height, length, capacity, and type.

Major Dams in India	State	Features
Hirakud Dam	Orissa	<ul style="list-style-type: none"> <li>- Reservoir capacity - 47,79,965 acre feet</li> <li>- Dam Type - Composite Dam</li> <li>- Installed Capacity - 347.5 Megawatt</li> <li>- Dam Height - 61 m</li> <li>- Dam Length - 4.8 km (Main Dam)</li> </ul>
Tehri Dam	Uttarakhand	<ul style="list-style-type: none"> <li>- Reservoir capacity- 21,00,000 acre feet</li> <li>- Dam Length - 575 m</li> <li>- Installed Capacity - 1000 Megawatt</li> <li>- Dam Height - 260.5 m</li> <li>- Dam Type - Rock fill</li> </ul>
Nagarjuna Sagar Dam	Telangana	<ul style="list-style-type: none"> <li>- Reservoir capacity- 93,71,845 acre feet</li> <li>- Installed Capacity - 816 Megawatt</li> <li>- Dam Type - Masonry Dam</li> </ul>

		<ul style="list-style-type: none"> <li>- Dam Height - 124m</li> <li>- Total Dam Length - 4863 m</li> </ul>
Sardar Sarovar Dam	Gujarat	<ul style="list-style-type: none"> <li>- Reservoir capacity- 77,00,000 acre-feet</li> <li>- Dam Length - 1210m</li> <li>- Dam Type - Gravity Dam</li> <li>- Installed Capacity - 1450 Megawatt</li> <li>- Dam Height - 163m</li> </ul>
Bhakra Nangal Dam	Himachal Pradesh and Punjab	<ul style="list-style-type: none"> <li>- Reservoir capacity- 75,01,775 acre feet</li> <li>- Dam Length - 520m</li> <li>- Dam Type - Concrete Gravity</li> <li>- Installed Capacity- 1325 Megawatt</li> <li>- Dam Height - 226 m</li> </ul>