

## Competitive Exams: Indian Geography HEP Projects

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### Multipurpose Projects

#### Bhakra Nangal Project

- it is the largest in India on Sutlej River. It's a joint venture of Punjab, Harayana and Rajasthan.
- it has five purposes: Two dams at Bhakra and Nangal Nangal hydel channel Powerhouse of 1,204 MW Electric transmission Bhakra canal system for irrigation Bhakra Dam is near Roopnagar, Ropar dist. The dam is 226m in height, 518m in length, 312m in width; behind it is Govind Sagar Lake. Nangal Dam 13 km from Bhakra dam, its height is 29m, length 305m, and width 121m.
- Nangal Hydrel Channel 64.4km long, 42.65m wide and 6.28m deep
- Powerhouse of 1204 MW first near Gangunal. Second Kotla, third near Roopnagar and fourth and fifth near Bhakradam.
- Bhakra canal 171 km long, maximum water at Haryana (46.7%), then Punjab (37.7%) and then Rajasthan (15.6%)

#### Damodar Valley Project

- Damodar is a tributary of Hughly river in Bengal and has four dams. It was setup on 19th Feb 1948 on the recommendation of W.L. Vordouin, the person who setup TVA in America. The four dams are: Tilaiya dam on Basakar River; started in 1950 and completed in 1953. Its length is 366m, and maximum width is 30m. It is the only concrete dam in the area. It has two power stations of 2,000 KW each.
- Konar dam on Konar River is in Hazarihagh. 3549 m long, maximum height 49m, completed in 1955. It supplies electricity to Bokaro Steel Project. Maithan dam on the confluence of Basakar and Damodar Rivers, 994m long and maximum height is 49m, completed in 1958, capacity is 60 MW.
- Panchet hill dam on Damodar river, completed in 1959, dam is 2545m long and maximum height is 49m, generates 40MW. In addition, three more dams have not being completedBel,

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Pahari and Bokaro. Durgapur Barrage 23km from Raniganj, stores irrigation water of 4 DVC dams, it is 83 km long and 12m high. Hirakud Dam: 61m high, 4801m long, on Mahandi rivers(Orissa)

- It is the largest dam in India and one of the largest dams of the world with the gross storage capacity of 8100 Million cubic meters.
- Two more dams have been built on Mahanadi Tibrapar and Naraj

## Other Major Projects

### Kosi Project

- It was started in 1955 with five objectives: Irrigation Flood control Power generation Land reclamation Fishing and Navigation
- There are three units at this Kosi Project A barrage near Hanumannagar (Nepal), 1149m long 72m high, Constructed in 1965. Flood embankments, built 1959, 270km Eastern Kosi canal, 43.5km long, a powerhouse of 20 MW, has been installed, which is shared by both India and Nepal.

### Rihand Valley Project

934m long. 92m high dam on river Rihand a tributary of Son, near Pipri in Mirzapur

- Govind Ballabh Pant Sagar, is the largest man made reservoir in India.
- One more project has been built at Ovea on Rihand River.

### Chambal Valley Project

- It is a joint venture of M.P and Rajasthan started in 1954 on Chambal River (tributary of Yamuna)
- In the first stage the dam was 64m high and 514m long, was called Gandhi Sagar Dam, it is in chaurasigarh near Bhanpura, built in 1960.
- In the second stage, one more dam was built which was 54m high and 1143m long was named Ranapratap Masonry Dam. It is 56km from Rawatbhata.
- In the third stage, the dam was 548m long and 45m high called Jawahar Sagar dam at Kota Dam, constructed in 1971.

### Tungbhadra Multipurpose Project

- It is a joint venture of Karnataka and Andhra Pradesh
- The dam is 50m high and 2,441m long on Tungbhadra River (a tributary of Krishna)
- It is built in Bellary dist. of Karnataka

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- There are canals on both sides of the dam.
- There are three power stations here.

## **Gandak Project**

- Joint venture of Bihar and U.P
- This project has 7.47m long and 9.81m high barrage at Bhansolotan in Valmikinagar in Bihar
- The project was completed in 196667
- Head Regulator is at Triveni
- The barrage has four canal two each for India and Nepal

## **Narmada Valley Project**

- Narmada originates near Amarkantak Plateau (M.P)
- It is the fifth largest river in India.
- The project aims to have 29 major and 3,000 small dams -The project was concieved in 194546.
- The largest project is Sardar Sarovar Project has the capacity of 77 lakh hectare and will provide is irrigation to 17.92 lakh hectares in Gujarat.
- Two power stations will produce 1,450 MW of hydroelectricity
- Second major project is Narmada Sagar project started in 1984.

## **Nagarajuna Sagar Project**

- Started in 195556, the dam is on Krishna River in Nalgonda dist
- Its height is 124.7m and length is 1450m.
- It has two canals Jawahar on the right and Lai Bahadur canal on the left
- The powerhouse has two units, 50 MW each.

## **Vyas Project (BEAS)**

- It is a joint venture of Punjabi, Haryana and Rajasthan
- It has two parts, Beas Sutlej link and Pong dam
- Beas Sutlej is 61 m high and is in Pandoh (H.P), and Pong is 116m, high at Dhauladhar in Pong near Beas.

## **Ramganga Project**

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- Ramganga is a tributary of Ganga
- Aim of the project is to provide irrigation facilities to about 6 lakh hectares of land in western U.P, to supply 20 cusecs of drinking water to Delhi and to control the floods in western and central U.P
- This project includes:
  - A 625.8m long and 125.6m high earth and rock filled dam across the Ramganga river and a Saddle dam of height 75.6m across the Ghuisot steam near Kalagarh in dist of Garhwal Across the river a 546m long weir at Hereoli
  - A feeder canal, 82km in length originating from Hereoli River Remodelling of 3388km of existing dam and 3880km long new branch canals A powerhouse on the river at its right bank with an installed capacity of 198 MW.

### **Mayurakshi Project**

- Mayurakshi is a tributary of the Hugh River
- Purpose behind this project is four fold
- Create irrigation potential Generate power Contral floods and Control erosion
- A barrage is constructed across the Mayurakshi River at Tilpara.
- Two irrigational canals are attached with the Tilpara barrage with total length of 1367 km and providing irrigation in West Bangal and Bihar 4,000 KW of electricity is supplied to Birbhum, Murshidabad and Santhal Pargana, which is generated by this project.