

3. Maharashtra Govt. to channel surplus water from Western flowing Rivers to Godavari Basin

Prelims: Geography of India

Mains: GS-I- Salient features of world's Physical Geography

Context:

- ▶▶ The Maharashtra government has decided to channelise surplus water from western flowing rivers to the Godavari basin to tackle the drought in the Vidarbha and Marathwada Regions.

What is Project:

- ▶▶ The project is part of the interlinking of six major river basins under the **Integrated State Water Plan**.
- ▶▶ The plan entails interlinking the river basins using advanced technology to facilitate transfer and equitable distribution of water to overcome the challenges of water scarcity in drought-prone Marathwada, Vidarbha, parts of North Maharashtra and Western Maharashtra.
- ▶▶ There is **300 TMC surplus water from the western flowing rivers**, which goes into the Arabian Sea.
- ▶▶ The plan is to tap **167 TMC water from Ulhas river, which would be channelised to the Godavari basin**. There will be several tunnels built to lift the water.

Concern:

- ▶▶ In the last five years, Maharashtra has faced recurring drought for four consecutive years.
- ▶▶ Climate change makes it necessary to look beyond traditional methods of water conservation to tackle the drought

Integrated State Water Plan:

- ▶▶ The plan shall include structural measures, operational measures, water-shed management measures and demand management measures such as water conservation, scarcity scheduling and efficient technologies.

- ▶▶ The plan will also cover water pollution control measures and monitoring measures that will assure comprehensive sustainable management of the water resources and equity in water distribution for the benefit for the state and its people.

Drought in Maharashtra:

- ▶▶ The situation is equally grim across half of the state, which reels from the fourth drought in the past six years.
- ▶▶ Southwest summer monsoon, which brings almost 80 per cent of the annual rainfall, was woefully inadequate last year.
- ▶▶ Marathwada region that falls in the rain shadow area and largely depends on monsoon rains was the worst hit.
- ▶▶ It received 36 per cent less rains than normal, according to the India Meteorological Department (IMD). Beed, for instance, received 50 per cent of the meagre 500-600 mm rainfall that the district receives in a normal monsoon year; Aurangabad and Osmanabad districts received 47 and 42 per cent less rainfall; a number of talukas in the region recorded over 60 per cent less rainfall.
- ▶▶ While the region pinned its hope on the winter showers between November and February to tide over the crisis, that too ditched the region.
- ▶▶ According to IMD, Marathwada faced rainfall deficit of 47 per cent in 2014 and 44 per cent in 2015. Yet, some 2.58 million ha was under coarse grains in January 2015 compared to 1.37 million ha this year.
- ▶▶ Jayakwadi dam, dubbed the lifeline of Marath wada, usually remains 33 per cent full around this time of the year; this year, it is just 11 per cent full.

Maharashtra government plan to make Drought free State.

- ▶▶ In December 2014, when Maharashtra launched **Jalyukt Shivar Abhiyan (JSA)** amid much fanfare, it was projected as a panacea to the state that has a long history of drought.
- ▶▶ “Nearly 82 per cent area of the state falls in rainfed sector and 52 per cent area is drought prone due to uncertain, insufficient and irregular rainfall which adversely affects agriculture.
- ▶▶ JSA thus **aims to make 5,000 villages free of water scarcity every year and bring water empowerment to 25,000 drought-hit villages over the next five years.**

Why drought in Maharashtra:

- ▶▶ Some blame it on erratic rainfall, while others on flawed implementation of the scheme.

▶▶ Though Marathwada recorded severe rainfall deficit in 2014 and 2015, drought intensity remained low as the rain was evenly distributed.

▶▶ **Longer dry Spells**

- ❖ In 2018, the state experienced longer dry spells. Barring Nanded, all seven districts of Marathwada faced over 100 days of dry spell in the 153-day rainy season. Osmanabad, Beed, Jalna and Aurangabad recorded the longest dry spells, extending up to 117, 114, 111 and 110 days.
- ❖ These longer dry spells have had a direct impact on soil moisture and water storage level in medium and minor irrigation projects.
- ❖ longer dry spells also encourage more people to extract groundwater, perpetuating water scarcity

▶▶ **Issue with Jalyukta shivar**

- ❖ JSA was launched to make people water secure during such dry spells.
- ❖ It found that barely 15 per cent of the structures were functional.
- ❖ “Structures like contour bunds, built across a slope to prevent soil erosion, have collapsed.
- ❖ At places, streams have been dredged and deepened to the extent that aquifers lie exposed.
- ❖ Wells have become dry because of the stream deepening works downstream,

▶▶ **Issue with Check Dam**

- ❖ In theory, check dam is a small barrier constructed across a stream or rivulet to reduce the effective slope of the channel, thereby slowing down the water flow, reducing soil erosion and at the same time replenishing aquifers.

▶▶ **Groundwater Colonised**

- ❖ **Desperate for water and a good income, farmers find solace in sugarcane, borewells.**
- ❖ Obsession of farmers with borewells have been touching new heights every drought season.
- ❖ There are 2,200 borewells in village Mane Rajuri in Sangli district, which is famous for grapes.
- ❖ People are now extracting water from 490 m below the ground.
- ❖ The obsession for borewells is particularly high among sugarcane farmers, and for a reason.

Major Rivers of Maharashtra

Godavari River:

- ▶▶ India's second largest river
- ▶▶ originates near Trimbak in **Nashik District**
- ▶▶ known as Dakshin Ganga and Gautami
- ▶▶ Nasik are major pilgrimage sites where one of the four Sinhastha Kumbh Mela takes place
- ▶▶ flows in Maharashtra, Telengana, Andhra Pradesh
- ▶▶ A barrage was built on the river at Dowleswaram by Sir Arthur Cotton in 1852
- ▶▶ The Jayakwadi dam near Paithan is one of the largest earthen dam in India
- ▶▶ **Havelock bridge is on Godavari** River link enabling trains to run between Chennai and Howrah.
- ▶▶ **Coringa mangrove forests in the Godavari delta** are the second largest mangrove formation in the country
- ▶▶ Nesting sites of the endangered Olive Ridley turtle.
- ▶▶ **Nanded:** Nanded is famous for the Sikh gurudwara – Takhat Sachkhand Shri Hazur Abchalnagar Sahib

Tributaries of Godavari

Indravati River

- ▶▶ Rises in the Eastern Ghats in Kalahandi Orissa

Pranahita River

- ▶▶ Flows on the border of Gadchiroli district in Maharashtra and Adilabad district in Andhra Pradesh

Penganga River

Manjra River

Krishna River

- ▶▶ It is the fourth largest river in India after the Ganga, Godavari and the Narmada
- ▶▶ Krishna River rises at Mahabaleswar in district Satara
- ▶▶ It flows through **Maharastra, Andhra Pradesh, Telangana and Karnataka.**
- ▶▶ home to ancient Satavahana and Ikshvaku Dynasty kings. Vijayawada is the largest city

Tributaries of Krishna:

- ▶▶ Major Tributaries of Krishna River are as follows:
- ▶▶ **Left: Bhima, Dindi, Peddavagu, Halia, Musi, Paleru, Munneru**
- ▶▶ **Right: Venna, Koyna, Panchganga, Dudhganga, Ghataprabha, Malaprabha, Tungabhadra**

Tungabhadra River:

- ▶▶ Originate in the Western Ghats
- ▶▶ Famous tourist spot **Hampi, Vijayanagara Empire's**
- ▶▶ Bhadravathi, Hospet, **Hampi**, Mantralayam, **Kurnool** are located on its bank.

Bhima River:

- ▶▶ Bhima River originates in Bhimashankar hills near Karjat in Maharashtra
- ▶▶ holy city of Pandharpur is on the bank of Bhima River
- ▶▶ Bhimashankar is one of the twelve esteemed Jyotirlinga shrines

Malaprabha River:

- ▶▶ Flows in Karnataka
- ▶▶ Rises at Kanakumbi in the Belgaum district

Ghataprabha River:

- ▶▶ Flows in Karnataka
- ▶▶ Ghataprabha Project at Hidkal is a hydroelectric and irrigational dam across the river.

