

General Studies-1; Topic: Changes in critical geographical features (including waterbodies and ice-caps) and in flora and fauna and the effects of such changes

River Interlinking Project

1) Introduction

- The government plans to work on an \$87 billion scheme to connect nearly 60 rivers in the country
- The idea is to connect the Himalayan and peninsular rivers via a network of canals so that excess water can be diverted.
- The project includes Ken-Betwa, Par-Tapi-Narmada and Damanganga-Pinjal river inter-linking projects and building Pancheshwar and North Koel dams.

2) Proponents of the project argue that:

- It will irrigate about 87 million acres of farmland, control floods, and generate 34 GW of hydroelectric power.
- This will cut farmers' dependence on monsoon rains by bringing millions of hectares of cultivatable land under irrigation.
- Crop productivity would increase and so would revenues for the State.
- Even one bad monsoon has a direct and debilitating economic impact.
- The river linking project will ease the water shortages in western and southern India while mitigating the impacts of recurrent floods in eastern India.
- Simultaneous floods and droughts continue to wreak havoc, destroying the lives and livelihoods of millions.
- India needs clean energy to fuel its development processes, and river water can be leveraged for this.
- Fulfilling water needs impact socio-economic life of people which will help end poverty.
- Need for interlinking of rivers to prevent inter-state water disputes.
- Potential benefits to transportation through navigation, as well as broadening income sources in rural areas through fishing.

3) Critics argue that:

- Interlinking of rivers is a very expensive proposal.
- The river interlinking project will adversely affect land, forests, biodiversity, rivers and the livelihood of millions of people
- The Ken-Betwa link threatens about 200 sq. km of the Panna tiger reserve
- Interlinking of rivers will lead to destruction of forests, wetlands and local water bodies, which are major groundwater recharge mechanisms.
- Less than positive experience that other countries have, like diversion of Amu Darya and the Syr Darya or the Australia's experiments in its Murray Darling basin.
- It causes massive displacement of people. Huge burden on the government to deal with the issue of rehabilitation of displaced people.
- Due to interlinking of rivers, there will be decrease in the amount of fresh water entering seas and this will cause a serious threat to the marine life
- The Shah committee pointed out that the linking of rivers will affect natural supply of nutrients for agricultural lands through curtailing flooding of downstream areas.

4) Challenges

- India has 18 percent of the world's population but only 4 percent of the usable water resources
- Irrigation potential from interlinking rivers will have limited impact. The net national irrigated area from big dams has decreased and India's irrigated area has gone up primarily due to groundwater.
- Large hydropower projects are no longer a viable option in India.
- Storing large quantities of waters. Most of the sites suitable for the big reservoirs are in Nepal, Bhutan and in the North-East—who are in opposition to big storage reservoirs.
- There are political challenges as well. Water transfer and water sharing are sensitive subjects.
- If the glaciers don't sustain their glacier mass due to climate change, the interlinking project will have limited benefit.
- Usually rivers change their course and direction in about 100 years and if this happens after interlinking, then the project will not be feasible for a longer run.

5) Way Forward

- The biggest, cheapest, most benign, possibly fastest and most decentralized storage option for India is the groundwater aquifer.
- Invest in water conservation, more efficient irrigation and better farm practices.
- We need a mandatory enforceable river policy aimed at treating rivers as national treasure
- Accumulation of silt in huge quantities, particularly the Ganga and its tributaries. These rivers need to be desilted.
- Planting trees on the river banks is one way of bringing life back to the rivers.
- Forest catchments will need to be restored, wastewater from industries and towns will need to be treated, sand mining need to be stopped.
- Need to build the responsibility, capability and accountability in our water management institutions to revive our rivers.
- The judicious use of canal water, growing crops that are appropriate to a region, encouraging drip irrigation and reviving traditional systems such as tanks.