Hydropower Projects in Himalayas

Why in News

Recently, the central government has said that **no new Hydropower projects would be allowed in the upper reaches of the Ganga** and those sanctioned would have to abide by environment regulations that prescribe a minimum flow in the river at all times of the year to preserve its health.

Key Points

- **About:**
    - **Seven projects, all in Uttarakhand,** have been allowed to complete construction primarily on the ground that they were over 50% complete.
    - The seven projects are the:
        - **Tehri Stage 2:** 1000 MW on Bhagirathi river
        - **Tapovan Vishnugadh:** 520 MW on Dhauliganga river
        - **Vishnugadh Pipalkoti:** 444 MW on Alaknanda river
        - **Singoli Bhatwari:** 99 MW on Mandakini river
        - **Phata Bhuyang:** 76 MW on Mandakini river
        - **Madhyamaheshwar:** 15 MW on Madhyamaheshwar Ganga
        - **Kaliganga 2:** 6 MW on Kaliganga river
- **Issues:**
    - Activists have raised concerns that two projects, Singoli Bhatwari and Phata Bhuyang, which were specifically linked to the **Kedarnath Tragedy** (2013) have been allowed.
    - The Vishnugadh project damaged in the February 2021 **Floods** too has been allowed to progress even though 200 plus people died due to the criminal negligence of there not being a **Disaster Warning System.**
    - Hydropower projects, dams and construction activities are affecting the fragile Himalayan region making them susceptible to disasters.
- **Challenges to Hydropower Projects in Himalayas:**
    - **Decreasing Stability:**
        - Glacier retreat and **Permafrost Thaw** are projected to decrease the stability of mountain slopes and increase the number and area of glacier lakes.
            - Permafrost Thawing is the release of the powerful greenhouse gas methane into the atmosphere, which contributes to further warming in a reinforcing feedback loop.
    - **Climate Change:**
        - Climate change has driven erratic weather patterns like increased snowfall and rainfall.
        - The thermal profile of ice is increasing, which means that the temperature of ice that used to range from -6 to -20 degree C, Is now -2 degree C, making it more

susceptible to melting.

- **Increase in Calamitic Instances:**
    - With increased instances of cloudbursts, and intense spells of rainfall and avalanches, residents of the region are also placed at increased risk of loss of lives and livelihood.

- **Initiative Taken:**
    - **National Mission on Sustaining Himalayan Ecosystem (NMSHE)** is one of the eight missions under the **National Action Plan on Climate Change (NAPCC).** The mandate is to evolve measures to sustain and safeguard the Himalayan glaciers, mountain ecosystems, biodiversity and wildlife conservation & protection.

Way Forward

- It is recommended that there should be no hydropower development beyond an elevation of 2,200 metre in the Himalayan region.
- Considering population growth and required industrial and infrastructure growth, the government should be serious in development of hydro power which is essential for the sustainable growth of the economy, but in a more ecological manner.

Source: TH