1. Apex body for glacier management

Prelims Syllabus: Disaster Manage Unit

Mains Syllabus: GS-III Conservation, environmental pollution and degradation, environmental impact assessment.

Why in News?

- A Parliamentary Standing Committee in India has recommended the establishment of an overarching apex body for glacier management in the country.

What are glaciers?

- A glacier is a large, perennial accumulation of crystalline ice, snow, rock, sediment, and often liquid water that originates on land and moves downslope under the influence of its own weight and gravity.

Status of Glaciers:

- Glaciers cover nearly 3% of Earth's surface and 11% of Earth's land area
- Source of three large river systems: Indus, Ganges, Brahmaputra
- Hindu Kush Himalayan Region is known as the "Water Towers of Asia"
- Himalayan mountains are referred to as the third pole
- India has over 16000 glaciers. E.g Siachen glacier in the Himalayan region.

Threats recognized:

- The majority of Himalayan glaciers are melting or retreating, which will severely affect flow in Himalayan River systems
- Melting glaciers can cause disasters like Glacier Lake Outburst Floods (GLOF), glacier avalanches, etc.
- Melting of glaciers may lead to the shift of tree lines in the Himalayas and may also cause a change in the phonological behaviour of plants.
- Lack of data sharing on hydrological information with neighbouring countries
- Multiple ministries/departments/institutions with different mandates for dealing with Himalayan glaciers

Recommendations by the parliamentary panel:

- Set up a single nodal agency for bringing out synergies among various government departments/ministries involved in glaciological research and monitoring
- Establish regional cooperation for the seamless sharing of hydrological information/data on glacier movement/behaviour
- Create a multi-hazard alert and warning system
- Increase involvement of Himalayan states, planners, scientists, and academicians in devising suitable measures for glacier management