



National Centre for Polar and Ocean Research (NCPOR)

The **six [himalayan glaciers](#)**, monitored by the National Centre for Polar and Ocean Research (NCPOR), have been **retreating** in the range of **13 to 33 millimetres per year**.

- Six glaciers i.e. Sutri Dhaka, Batal, Bara Shigri, Samudra Tapu, Gepang Gath and Kunzum, are monitored for mass, energy and hydrological balance.
 - Debris of thickness above two centimetres have reduced the melting rates up to 70 %, whereas the debris cover of below two centimetres thickness has accelerated melting up to 10 % of the total melting.
- The NCPOR has undertaken studies in the Western Himalaya in Chandra basin in Lahaul-Spiti (Himachal Pradesh) since 2013.
- The NCPOR has also established a high altitude research station named 'Himansh' in **Himalaya** at 4,000 metres altitude at Sutri Dhaka.

National Centre for Polar and Ocean Research (NCPOR)

- It was established as an autonomous Research and Development Institution of the Ministry of Earth Sciences on the 25th May 1998.
- Earlier known as **[National Centre for Antarctic and Ocean Research \(NCAOR\)](#)**, NCPOR is India's **premier R&D institution** responsible for the country's research activities in the Polar and Southern Ocean realms.
- It is the **nodal agency** for planning, promotion, coordination and execution of the entire gamut of polar and southern ocean scientific research in the country as well as for the associated logistics activities.
- Its responsibilities include:
 - Management and upkeep of the **Indian Antarctic Research Bases** "Maitri" and "Bharati", and the **Indian Arctic base** "Himadri".
 - Management of the Ministry's research vessel **ORV Sagar Kanya** as well as the other research vessels chartered by the Ministry.
 - The Ocean Research Vehicle (ORV) Sagar Kanya is a versatile ocean observing platform equipped with technologically advanced scientific equipment and related facilities.
 - Playing a facilitatory role in the scientific research activities being undertaken by several national institutions and organizations in Antarctica, the Arctic and in the Indian Ocean sector of the Southern Ocean.
 - Playing a lead role in the geoscientific surveys of the country's **[Exclusive Economic Zone \(EEZ\)](#)** and its extended continental shelf beyond 200m, deep-sea drilling in the Arabian Sea basin through the International Ocean Discovery Program (IODP), exploration for ocean non-living resources such as **[gas hydrates](#)** and multi-metal sulphides in mid-ocean ridges.
- It is **located** in the state of **Goa**.

International Ocean Discovery Program (IODP)

- It is an **international marine research collaboration** that explores Earth's history and

dynamics using ocean-going research platforms to recover data recorded in seafloor sediments and rocks and to monitor subseafloor environments.

- It is in **Phase II** (tenured **2013-2023**) of what was formerly known as the **Integrated Ocean Drilling Program - Phase I**.
 - **Phase I** which was envisioned in the year 2003, ceased in October 2013, after which its 26 participating nations have continued collaboration through the International Ocean Discovery Program: Exploring the Earth under the sea. India joined the Phase I in the year 2009 as an Associate Member.
- India's continued participation in Phase II as a member of the International Ocean Discovery Program is a result of an agreement signed in September 2014.
- NCPOR is the nodal agency for all the IODP related activities in India.

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