

INDIAN SCIENTIFIC ENDEAVORS IN THE ARCTIC

Ever since the establishment of India's research base HIMADRI in Ny Alesund, Indian scientists have been carrying out research activities in some of the frontier areas of polar sciences of special relevance to the Arctic realm- glaciology, hydrochemistry of the Kongsfjorden system, polar biology and atmospheric science. To date, 57 scientists representing 18 national institutions and universities have participated in the Indian Arctic Programs. Some of the long-term ongoing projects are:

- Role of Aerosols and precursor gases in direct radiative forcing over Arctic region at Ny-Alesund
- Parameterization of glaciers in Northern Hemisphere to variations of climate – Inter annual and Intra annual
- Diversity of Arctic Cyanobacteria
- Investigations of atmospheric aerosols and their characterization over the Arctic during summer season
- Multi-proxy geological studies in Svalbard area and surrounding Ocean: Implications to Quaternary palaeoclimate and pre-Quaternary bio-stratigraphy.
- Crustal Deformation studies in the Arctic

NCAOR has also developed a web-based ARCTIC PORTAL showcasing India's varied scientific activities in Ny Alesund (<http://210.212.160.135:5050/website/index.html>). This portal was formally launched by Ms. Tora Asaland, Minister of Higher Education, Norway, at Himadri on the 6 June 2010, in the distinguished presence of Mr. Pritviraj Chavan, Hon' Minister of Science and Technology, Govt. of India. In addition, NCAOR has initiated action to establish data acquisition instrumentation and basic laboratory facilities at Himadri in the fields of atmospheric sciences, microbiology, glaciology and hydrochemistry. These facilities are also proposed to be made available to the other scientific fraternity of NySMAC, if needed.

NCAOR has also initiated discussions with its counterparts at NPI exploring the possibility of deploying a multi-sensor ocean-atmosphere mooring system in Kongsfjorden, as a part of its long-term monitoring program of the fjord.