

GOVERNMENT OF INDIA
MINISTRY OF EARTH SCIENCES
RAJYA SABHA
UNSTARRED QUESTION NO. 2948
TO BE ANSWERED ON 22nd APRIL, 2010

RESEARCH BASE HIMADRI

2948. SHRI NAND KUMAR SAI:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether a research base Himadri has started its operation;
- (b) if so, the details thereof along with the research so far made by the said base;
- (c) the details of the expenditure incurred in setting up of said base; and
- (d) the extent to which it has so far obtain its objectives?

ANSWER

THE MINISTER OF STATE (INDEPENDENT CHARGE)

MINISTRY OF SCIENCE AND TECHNOLOGY, MINISTRY OF EARTH SCIENCES, MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE, MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS
(SHRI PRITHVIRAJ CHAVAN)

(a) & (b) Yes Sir. India established a research station at Arctic named 'Himadri' at Ny-Alesund in Svalbard region of Norway during the second Indian Arctic expedition which was inaugurated by the then Hon'ble Minister of Earth Sciences on 1st July, 2008 and since is in operation.

Geologically, Svalbard is unique place where a complete geological column extending from Pre-cambrian is exposed. The closed proximity of glaciers, mountains, streams and fjords present contrasting environment for research. The following salient studies have been undertaken/ initiated:

Atmospheric Sciences

- i. Study of polar ionosphere;
- ii. Measurement of atmospheric electrical parameters to understand global electric circuit;
- iii. Snow pack production of carbon monoxide and its diurnal variability;
- iv. Scientific studies of the total solar eclipse over the Arctic on the 1st August 2008;

Earth Sciences / Palaeoclimate

- i. Sedimentology and geomorphology of the Ny-Alesund region and its implication on palaeoclimatic reconstruction;
- ii. Changes in the quantity and quality of carbon pools in permafrost of Ny-Alesund;
- iii. Carbon cycling in the nearshore aquatic environments;
- iv. Multiproxy palaeoclimatic studies on quaternary deposits at Ny-Alesund;
- v. Palaeoclimatic assessment of Arctic ocean using diatom variability;

Glaciology/Geology

Parameterisation of glaciers in northern hemisphere to variations of climate inter annual and intra annual;

Biological Studies

- i. Diversity of heterotrophic bacteria in Arctic water and sediment ;
- ii. Genetic diversity of Marine Vibrios and other organisms isolated from Arctic realms;
- iii. Diversity of Arctic cyanobacteria.

(c) & (d) An expenditure of Rs. 1.25 crore was incurred in setting up the base at Ny-Alesund, Norway in Arctic. After the establishment of the station, Indian scientists are undertaking scientific investigation every year on continuous basis.
