

**GOVERNMENT OF INDIA
OCEAN DEVELOPMENT
LOK SABHA**

UNSTARRED QUESTION NO:3450
ANSWERED ON:20.03.2001
ACHIEVEMENTS OF ANTARCTICA RESEARCH CENTRE
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Will the Minister of OCEAN DEVELOPMENT be pleased to state:

- (a) the achievements of Antarctica research Centre during each of the last three years and till date; and
(b) the expenditure incurred on each of the expedition and the research projects undertaken by it during the said period?

Answer

THE MINISTER OF HUMAN RESOURCE DEVELOPMENT, MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF OCEAN DEVELOPMENT (DR. MURLI MANOHAR JOSHI)

(a) Achievements of Centre for Antarctic research renamed as National Centre for Antarctic and Ocean research (NCAOR), during each of the last three years and till date:

1998

- ? Completion of Phase I of civil construction and operation of the Centre from its own premises at Vasco, Goa.
- ? Coordination & launching of the XVIII Indian Antarctic Expedition from Goa.
- ? The management & cruise planning of ORV Sagar Kanya.

1999

- ? Coordination & launching of the XIX Indian Antarctic Expedition for the first time from Cape Town, South Africa.
- ? Hosting of XI International Council of Managers of National Antarctic Program (COMNAP) and Standing iCommittee on Antarctic Logistics and Operations (SCALOP) meetings for the first time in India.
- ? Initiation of in house R&D activities in the field of polar remote sensing.

2000

- ? Construction of cold laboratory complex.
- ? Recruitment of some of the supporting staff.
- ? Coordination & launching of the XX Indian Antarctic Expedition from South Africa and management of the vessel ORV Sagar Kanya.
- ? Initiation of activities on polar remote sensing, global change and delineation of outer limits of Legal Continental shelf.

(b) The expenditure incurred on each of the expeditions and some of the research projects undertaken by it during the period:

XVIII Expedition (1998-99)

Expenditure incurred Rs. 17.65 crores

Some of the research projects undertaken are:

- Continuation of Very Low frequency (VLF) propagation, geodetic, Seismic, Geomagnetic, Meteorological & Ozone measurements.
- Microstructural and energy flux studies of snow-ice.
- Hydrographic survey of Antarctic waters.
- Biodiversity of diatoms, anaerobic bacteria & nematodes.
- Eutrophication analysis of lakes
- Stress response & social behaviour and thermoregulatory effect of polar clothings.

XIX Expedition (1999-2000)

Expenditure incurred Rs. 16.55 crores

Some of the research projects undertaken are:

- Initiation of studies on atmospheric electric current system.
- Continuation of regular met & ozone measurements, teleseismic & planetary geodetic observations.
- Geological mapping in Hoffmann ranges & preparation of geo-morphological map.
- Glacial dynamics & crack propagation studies of shelf.
- Bio ecological studies of invertebrate fauna & bryophytes.
- UV radiation & cold stress in human including psycho-physiological investigations

XX Expedition (2000-2001)

Expenditure incurred Rs. 16.50 crores

Some of the Research projects undertaken are:

- Continuation of geological, topographical & hydrographical survey.
- Planetary geodetic & teleseismic studies.
- Ground probe radar survey for measuring ice thickness.
- Global change research through studies on albedo & aerosol radiative forcing.
- Sediment coring of lake for palynostratigraphic studies.