

National Centre for Antarctic & Ocean Research

Department of Ocean Development

(Government of India)

Headland Sada, Vasco da Gama, Goa 403 804

Subject: Indian Scientific Expedition to Antarctica – Invitation for scientific proposals for the 22nd Antarctic Expedition (2002–2003).

1. The Twenty-second Indian Scientific Expedition to Antarctica will be launched in December 2002 and will consist of a summer team which will return to India in March 2003 and a winter team which will return to India in March 2004.
2. The National Centre for Antarctic & Ocean Research (NCAOR) invites scientists/researchers/engineers to submit proposals for undertaking front ranking scientific experiments in Antarctica in various inter-disciplinary fields. These broadly include (i) earth sciences & glaciology; (ii) global change processes; (iii) meteorology & atmospheric sciences; (iv) environmental sciences; (v) biology; (vi) human physiology and medicine and (vii) engineering and communication sciences. Thrust will be given to the following topical areas of polar sciences.

Geological/geophysical studies

Ocean–ice–atmosphere interaction through remote sensing

Satellite–Technologies and calibration

Global change and Antarctica

Ice sheet mass balance and ice thickness

Palaeoclimate and environment

Environment monitoring and conservation

Bio-potentials of Antarctic organisms

Solar terrestrial physics

Lacustrine studies

Enabling cold region technologies development

Antarctic neotectonics

Environmental aspects of Maitri sector in Antarctica.

3. Proposals for summer and winter periods are invited in the above areas of research. While framing the proposal, repetition of scientific work already carried out from the Indian station Maitri in Antarctica should be avoided. Due consideration has to be given to the fact that the experiments have to be carried out within the logistic infrastructure available at Maitri and should be limited to around 150 km radius of the station. The proposal should be succinct indicating the following:
 - i) the scientific aims and objectives with illustrations and references
 - ii) expected results and their relevance
 - iii) state-of-the-art experiments in the international scenario
 - iv) if an on-going programme, its accomplishments till date
 - v) time-frame of the project (summer/winter) with milestones

- vi) the team component (summer/winter) and logistic requirements
 - vii) any national/international collaborations envisaged
 - viii) proposal should have the complete biodata of the proposers along with names of two referees. The proposer should be a permanent employee and must have sufficient experience in the relevant field.
4. Nominees recommended should be physically fit to work in extreme sub-zero temperatures and harsh conditions and should not have any ailments and illnesses which are likely to have an adverse effect or related problems. A medical fitness certificate from a Civil Surgeon of a Government Hospital must accompany all nominations. Nominations without such medical certificates will be summarily rejected.
- (a) Nominees must be able to and willing to cooperate in cargo handling operations and station maintenance activities. They should also be willing to assist in expedition activities outside their assigned scientific tasks.
 - (b) All nominated members should be prepared to stay in accommodation on sharing basis as may be available in the ship or in the Antarctic Station/Camps.
 - (c) All nominated scientists especially those likely to be involved in outdoor activities must be able to cook a simple meal and should have knowledge of first aid.
 - (d) It is also necessary to ensure that summer nominees have a work programme which is likely to take at least 45 days time on mainland Antarctica or in the polynya that should not be merely sample collection activity.
5. The proposals will be scrutinized through a multi-tier selection mechanism and only those recommended for final inclusion will be informed for fulfilling other requirements. No correspondence in regard to selection will be entertained.
6. NCAOR/DOD makes arrangements for travel to Antarctica from Goa and back, accommodation in the ship and in Antarctica food special polar clothing requirements and personal insurance cover. All other expenses including those related to procurement of scientific equipments, attending pre-Antarctic trainings and briefings, hard duty allowance, etc. will have to be borne by the participating organizations. This may be taken into account while forwarding the nominations.
7. Deadline for receiving proposals: **Three copies of the proposals are to be forwarded institutionally through proper channel** and must reach the Centre Director, National Centre for Antarctic and Ocean Research, Headland Sada, Vasco da Gama, Goa 403 804 by **30 April 2002**. Nominations received after this date will not be entertained. Such information is also available on our website www:ncaor.org.

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Sd/-
Programme Manager (Science)