National Centre for Antarctic & Ocean Research

(Ministry of Earth Sciences, Govt. of India)

Headland Sada, Vasco-da-Gama, Goa - 403 804.

Invites Nominations from Scientists/Researchers for forthcoming IODP expeditions

The Director, National Centre for Antarctic & Ocean Research (NCAOR), on behalf of IODP- India invites nominations in a prescribed format along with detailed bio-data and research/professional experience, from geoscientists/researchers working in established national institutions/organizations and universities, to participate in the forthcoming International Ocean Discovery Program (IODP) expedition **371 (Tasman Frontier Subduction Initiation and Paleogene Climate Expedition), 369 (Australia Cretaceous Climate and Tectonics Expedition) & 374 (Ross Sea West Antarctic Ice Sheet History Expedition).** NCAOR will provide the requisite financial support to the selected candidates towards their participation in the said expedition. However, it will be the responsibility of the candidates to obtain the necessary Visas / permissions from the countries of embarkation and disembarkation on their own. A scientific plan is mandatory for a successful nomination. Once nominated, candidates will have to submit a detailed science plan along with sample data request which may also form a basis for collaborative research programs between their host organization and NCAOR.

Further details including last date of nominations and format can be obtained at www.ncaor.gov.in or by email to iodp.india@ncaor.gov.in

For and on behalf of NCAOR
Program Officer (IODP-India)

Complete nominations may kindly be emailed to iodp.india@ncaor.gov.in

Information on forthcoming IODP Expeditions:

Tasman Frontier Subduction Initiation and Paleogene Climate Expedition (371) - Aug-Sep 2017

The Tasman Frontier expedition (based on IODP Proposals 832-Full2 and 832-Add) will investigate the Eocene Tonga-Kermadec (TK) subduction initiation (SI) and evaluate whether a period of high-amplitude long-wavelength compression led to initiation of TK subduction or determine if alternative geodynamic models were involved. Core and log data from boreholes in the Norfolk Ridge, New Caledonia Trough, Lord Howe Rise and Tasman abyssal plain will provide constraints on seismic stratigraphic interpretations and the timing and length scale of deformation and uplift associated with the largest known global SI event and change in plate motion. The Paleogene and Neogene sediments will also constrain paleoceanographic changes caused by SI as well as tropical and polar climatic teleconnections and the transition from greenhouse to icehouse climate states in a region with large meridional variations in surface water properties in a strategic 'Southern Ocean Gateway' setting.

Australia Cretaceous Climate and Tectonics Expedition (369) - Oct-Nov 2017

The Australia Cretaceous Climate and Tectonics Expedition (based on IODP Proposal 760-Full2) aims to understand the paleoceanography and tectonics of the Naturaliste Plateau (NP) and Mentelle Basin (MB) off SW Australia. Core and log data from a series of sites in water depths between 850 and 3900 m will investigate: (1)The rise and collapse of the Cretaceous hothouse; (2) the controls on oceanic anoxic events during major carbon cycle perturbations; (3) Cretaceous paleoceanography including deep and intermediate water circulation; (4) Cenozoic to recent paleoceanography including influence of the

Tasman gateway opening and Indonesian gateway restriction;and (5) the tectonic, volcanic, and depositional history of the NP and MB prior to Gondwana breakup, as well as after separation from India and subsequently Antarctica.

Ross Sea West Antarctic Ice Sheet History Expedition (374) – Jan-Feb 2018

The Ross Sea West Antarctic Ice Sheet (WAIS) History Expedition (based on IODP Proposals 751-Full2, 751-Add, & 751-Add2) will investigate the relationship between climatic/oceanic change and WAIS evolution through the Neogene and Quaternary. Numerical models indicate that this region is highly sensitive to changes in ocean heat flux and sea level, making it a key target to understand past ice sheet variability under a range of climatic forcings. The proposed drilling is designed to optimize data-model integration for improved understanding of Antarctic Ice Sheet mass balance during climates warmer than present. Core and log data from a transect of six sites from the outer continental shelf to rise in the eastern Ross Sea will be used to: (1) evaluate WAIS contribution to far-field ice volume and sea level estimates; (2) reconstruct ice proximal atmospheric and oceanic temperatures to identify periods of past polar amplification and assess forcings/feedbacks; (3) assess the role of oceanic forcing (e.g., sea level, temperature) on WAIS instability; (4) document WAIS sensitivity to Earth's orbital configuration under varying climate boundary conditions; and (5) reconstruct eastern Ross Sea bathymetry to examine relationships among seafloor geometry, ice sheet instability, and global climate.

Important Notes:

1. For more information on the above expeditions please visit www.iodp.gov.in and use the link iodp.tamu.edu/scienceops/

2. Applications in prescribed format (available on the website www.ncaor.gov.in) shall be considered.

3. Last date by which NCAOR receives nominations **15th September, 2016.**

4. A scientific plan is mandatory for a successful nomination. Once nominated candidates will have to submit a detailed science plan along with sample data request which may also form a basis for collaborative research programs between their host organization and NCAOR.