

Project Endorsement Form

1. PROJECT TITLE

Full title	Biogeochemistry-Atmosphere Processes in the Bay of Bengal: A contribution to IIOE-2
Acronym	BIOCAT-IIOE2
Website	n/a
Keywords (up to 10, describing the project research)	Biogeochemistry/atmosphere interactions, OMZ, N cycle, biological pump, aerosols, trace gases
New initiative or continuing programme?	New initiative: cruise proposal to the German BMBF

2. APPLICANTS

Lead applicant / Project Leader / key research contact person:

First name	Hermann
Last name	Bange
Affiliation	GEOMAR, Kiel, Germany
Postal address	Düsternbrooker Weg 20, 24105 Kiel
Country	Germany
Telephone	+49-431-600 4204
Email address	hbange@geomar.de
Institutional or personal website	http://www.geomar.de/en/mitarbeiter/fb2/ch/hbange/

Other key participants / research team leaders: (repeat as needed)

First name	Birgit
Last name	Gaye
Role in the project	Co-applicant
Affiliation	University of Hamburg
Country	Germany
Email address	birgit.gaye@uni-hamburg.de
Institutional or personal website	https://www.geo.uni-hamburg.de/geologie/personen/gaye-birgit.html

N.B.: Please note that all these names and contact details will be added to the IIOE-2 membership database.

3. ABSTRACT– Brief description of the project: (1/4 page maximum)

IIOE-2 Joint Project Office (JPO)

Perth Australia Node
IOC Perth Programme Office
c/o Commonwealth Bureau of Meteorology
3rd Floor, 1 Ord Street
West Perth, Western Australia, 6005, Australia.
Phone: +61-8-92262899
Email: iioe-2@bom.gov.au

<http://www.iioe-2.incois.gov.in>

Hyderabad India Node
Indian National Centre for Ocean Information Services
(INCOIS)
Pragathi Nagar
Hyderabad, Telangana 500 090, India.
Phone: +91-40-2388 6142
Email: iioe-2@incois.gov.in

This will be placed on the IIOE-2 Website after endorsement.

The Bay of Bengal (BoB), which forms the northeastern basin of the Indian Ocean, is characterized by a unique environmental setting including a pronounced oxygen minimum zone (OMZ) with dissolved oxygen concentrations close to anoxic conditions and a heavily polluted atmosphere during spring. To this end, we propose a research cruise with R/V Sonne from Colombo (Sri Lanka) to Chittagong (Bangladesh) for spring 2019 in order to decipher the major natural and anthropogenic processes in the water column and the overlying atmosphere which affect the OMZ of the BoB. The project combines measurements of marine biogeochemistry, microbiology, physical oceanography and air chemistry with a focus on (i) the efficiency of the biological pump, (ii) the nitrogen cycle processes in the OMZ as well as (iii) the air/sea exchange fluxes of trace gases across the ocean/atmosphere interface and (iv) aerosol deposition. The findings will have global significance for our fundamental understanding of the future development and maintenance of OMZs especially in view of ongoing environmental changes such as ocean deoxygenation. The project will be a German contribution to the 2nd International Indian Ocean Expedition (IIOE-2) program.

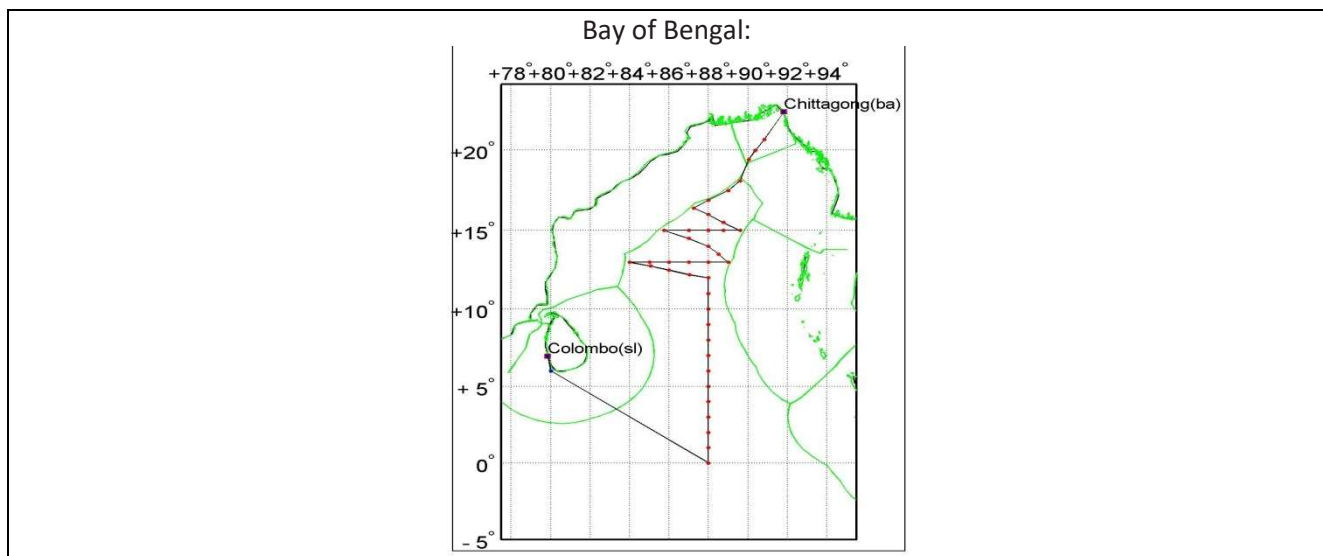
4. LINKS TO IIOE-2 SCIENCE PLAN:(1/2 page maximum)

How do you anticipate your project to contribute to the IIOE-2 strategy and science delivery, with reference to which (either one or more) of the six IIOE-2 Science Plan themes that your project responds. Please state the specific issues and questions addressed by your project in the context of the IIOE-2 Science Plan themes and key issues.

The project contributes to the Themes 1 and 6 of the IIOE-2 Science Plan.

5. REGION(S) OF STUDY

Provide a description of 'where' the research is to be conducted (for field based activities) and/or the region or regions to which the research pertains (you are encouraged to consider providing a figure as an addendum to your proposal).



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6. TIMETABLE OF THE PROJECT

Start date: Jan 2019	End date: Feb 2021
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7. LINKAGES WITH OTHER PROJECTS / PROGRAMMES / INITIATIVES

Is the project part of a related national or multi-national activity?

If yes, provide the related activity title and website for reference, if available:

<p>The project is part of the IGIOS (Integrated German Indian Ocean Study) initiative. The Science Prospectus of IGIOS can be downloaded as pdf from http://oceanrep.geomar.de/33146.</p>

Is your project part of, or affiliated to, another SCOR, IOC or IOGOOS activity or project?

If "yes", please indicate which activity or project:

No.

8. DATA MANAGEMENT

1. Will new data be collected as part of this project (yes or no?)

<p>Yes. Data will be collected by the Kiel Data Management Team at GEOMAR, Kiel, Germany. All data from the project will archived and published at PANGAEA (www.pangaea.de) after the end of the project.</p>

2. Contact information if any, of the person in charge of the data management from whom the metadata can be accessed by interested IIOE-2 stakeholders.

Please note that for all IIOE-2-endorsed projects, IIOE-2 will have developed its own metadata portal. Once the project is endorsed, the project leader will be asked to provide the metadata information of the project.

Hermann Bange, GEOMAR, Kiel, Germany: hbange@geomar.de
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9. FUNDING

IIOE-2 Joint Project Office (JPO)



Please note that IIOE-2 strongly encourages funded/resourced projects. However, IIOE-2 may endorse projects yet to receive funding/resourcing if IIOE-2 endorsement can be clearly shown to significantly aid in prospects for funding/resourcing.

Has funding and resources to successfully achieve and undertake the project been obtained? Indicate the sources of funding and resources that have been approached and/or secured.

Application for funding will be submitted to the German BMBF.

10. BENEFITS FROM IIOE-2 ENDORSEMENT (1/4 page maximum)

Specify why you are seeking endorsement and how the activity would benefit from endorsement, and how the IIOE-2 SC could assist in the implementation of your project.

Endorsement of the project may increase chances of a funding by BMBF.

11. OPTIONAL: OTHER COMMENTS/INFORMATION/MATERIAL (length and detail may be at the discretion of and as deemed necessary by the applicant)

Please feel free to provide any other comments, information or materials that you feel relevant to your proposal for the IIOE-2 Steering Committee’s information and benefit. You may provide this as general information or provide the additional comments/information/materials as relevant to any of the specific Sections above.

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