

Project Endorsement Form

1. PROJECT TITLE

Full title	Western Indian Ocean Upwelling Research initiative
Acronym	WIOURI
Website	none
Keywords (up to 10, describing the project research)	Western Indian Ocean, Upwelling, ecosystems, fisheries, socio-economics
New initiative or continuing programme?	New

2. APPLICANTS

Lead applicant / Project Leader / key research contact person:

First name	Michael
Last name	Roberts
Affiliation	Nelson Mandela Metropolitan University (NMMU)/National Oceanography Center (NOC)
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Country	South Africa/United Kingdom
Telephone	+27 8264190
Email address	Mike.roberts@nmmu.ac.za/mike.roberts@noc.ac.uk
Institutional or personal website	www.nmmu.ac.za/ www.noc.ac.uk/Southampton

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

First name	Jean-Francois
Last name	Ternon
Role in the project	Co-PI
Affiliation	Institut de Recherche Development
Country	France
Email address	jean-francois.ternon@ird.fr
Institutional or personal website	www.ird.fr

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

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

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

Because of the strongly related socio-economic impacts, upwelling has been selected as a major focus in the newly formulated IIOE2 Science Plan. In particular, the WIO contains a rich diversity of geophysical mechanisms that induce upwelling and make this region so different from the EIO, and in fact unique worldwide. This is largely due to the interaction of wind (especially the monsoon), currents, eddies and Coriolis force with unique coastlines and topographic features such as the landmass of Madagascar, the Mascarene Plateau, seamounts and ridges – all to produce great contrast in the size, intensity and seasonality of upwelling between the eastern and western parts of the basin, as well as between the north, southern and central WIO. Two complementary, regionally unifying, projects have therefore been set up to study upwelling and its influence on the dependant ecosystems. The projects are referred to as the Western- and Eastern Indian Ocean Upwelling Research Initiatives respectively (i.e., WIOURI and EIOURI). The varying forms of upwelling in the WIO have been distinguished into 9 systems – referred to as regional "upwelling" projects (RUPs) in WIOURI. These include: (1) Agulhas Current driven upwelling, (2) Upwelling in the Mozambique Channel, (3) Madagascar Ridge and seamounts upwelling, (4) Southeast Madagascar shelf and SICC chlorophyll bloom, (5) Upwelling in the East African Coastal Current (EACC) and influence of major islands (Mafia, Zanzibar, Pemba), (6) Upwelling Somalia Current system, (7) Oman/Arabian Sea upwelling system, (8) Chagos-Seychelles upwelling dome and Chagos Ridge, and (9) Mascarene Plateau induced upwelling. A brief review of these is given to highlight their unique character, role and specific questions that need to be addressed. WIOURI is designed to have at least two cruises per RUP and for the data collection phase to run between 2016 and 2021. It aims to leave several legacies in the form of research centres, schools, and scientific outputs.

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.

WIOURI is described on page 58 of the IIOE2 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).

WIOURI potentially comprises 9 Regional Upwelling Projects (RUPs) (Figure 2). Each is unique in terms of the fundamental physics that induce upwelling. These will be studied when funding and ship time become

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available. Currently, RUPs 1 and 3 have started.

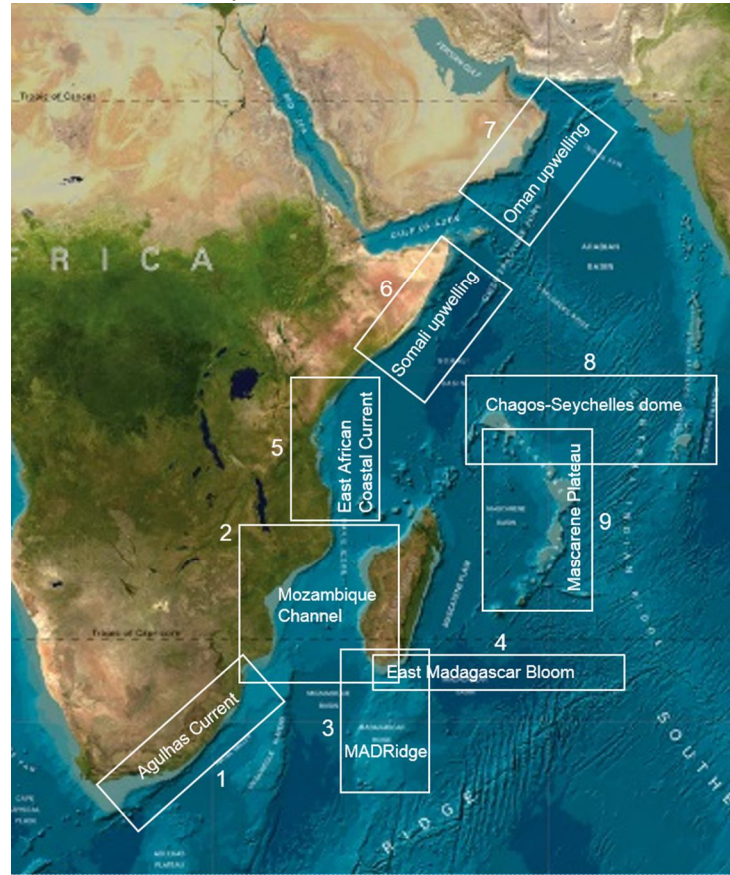


Figure 2

6. TIMETABLE OF THE PROJECT

Start date: 2016	End date:2020
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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:

None at the moment.

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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



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?)

Yes

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.

Contact PI.

9. FUNDING

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.

- Only a basic grant for the support of a PI (Mike Roberts) and for scholarships obtained thus far
- Ship time (1 cruise) from France (IRD) has been secured and cruise will take place in November 2016
- Funding still needs to be secured for all other activities

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.

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In theory, IIOE2 endorsement should help secure ship time and funding. However, this endorsement has not proved to be useful in approaching funders and ship time so far. In particular, I am trying to secure the Fridtjof Nansen (FAO) for some of the RUPs. I have had several meetings to suggest joint campaigns, as ecosystem functioning has been made a primary objective of the new Nansen FAO program in those areas highlighted in Figure 2 above. Intervention by the IIOE2 would greatly assist.

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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