

REPORTING FORM 2024

Please return completed form to imber@ecnu.edu.cn by 20th July

REPORTING PERIOD: WHAT YOU HAVE DONE since the annual report submitted for the SSC meeting held in Paris in April 2023 (<u>Link to past annual reports</u>)

and PLANNED ACTIVITIES over the next year (and beyond if details available)

N.B. The form focuses reporting on the research objectives (2022-2025) of the Grand Challenges (in order to align with how we are addressing IMBeR's commitments defined in the 5-year review process to SCOR and Future Earth).

Thank you.

Insert name of Synthesis Activity

List authors

1. Ongoing activities, in line with the IMBeR Grand and Innovation Challenges (Among other uses, information will be used to update the IMBeR Annual Report to SCOR)

1.a. Grand Challenge I

Understanding and quantifying the state and variability of marine ecosystems - with focus on Research Objectives 1 to 3:

Research Objective 1. Evaluate and predict the cumulative effect of multiple stressors **Research Objective 2.** Integration of climate change and climate variability **Research Objective 3.** Impacts on society – preparation for a changed future

Add text...

1.b. Grand Challenge II

Improving scenarios, predictions and projections of future ocean-human systems at multiple scales - with focus on Research Objectives 4 to 6:

Research Objective 4. Development of integrated data systems and approaches for predictions and projections

Research Objective 5. Development of predictive models and projections for use at regional scales

Research Objective 6. Development of alternative scenarios to bridge the gap between physical climate sciences and humanities

Add text...

1.c. Grand Challenge III

Improving and achieving sustainable ocean governance - with focus on Research Objectives 7 to 9:

Research Objective 7. Develop knowledge on best practices for multilevel governance approaches to ocean climate adaptation and mitigation

Research Objective 8. Develop understanding on key ingredients for transformation towards more sustainable, equitable and inclusive governance approaches to fisheries and aquaculture **Research Objective 9**. Support implementation of post-2020 biodiversity targets for marine spatial planning and marine protected areas

Add text...

1.d. Innovation Challenge 3

To advance understanding of ecological feedbacks in the Earth System

Add text...

1.e. Innovation Challenge 4

To advance and improve the use of social science data for ocean management, decision making and policy development

The main Activity 1 that IC4 has been engaged in 2023-3024 is the initiative to identify best practices in integrating social and natural science data in upscaling from local to global application, based on around 10 case studies across the globe. This includes assessing from which critical areas of human impact on the ocean these case studies emerge. This activity is envisaged as a participatory process of co-development of knowledge among a network of collaborating partners, leading to a peer-reviewed journal paper. The output of this initiative is aimed to contribute Activity 3, which is an outreach initiative at an IMBeR-related event to share results and engage in a discussion with partner organizations to generate a template/format to integrate social and natural science data to upscale application from local to global levels.

Under Activity 1, the IC4 team held two sets of Zoom meetings (27 April and 4 May 2023, as well as 24 October 2023 to cover the different time zones) with representatives from 9 collaborating institutions across the globe. The preliminary meeting, which began with an introduction to the collaborators, discussed the objectives of the case studies initiative, the format and levels of engagement and the themes to be explored in the case studies. This was followed by an on-line discussion on clarifying concepts and further delineating the themes under study. Then a second meeting was held to consolidate the methodology of the case studies, including a preliminary discussion on a draft questionnaire, and to agree upon the format for future collaboration. This was followed by further on-line discussion until the questionnaire was finalised. The final version of the questionnaire was sent out to collaborators at the end of January 2024. As responses were not received by the deadline in

late February, extensions were provided. However, as a satisfactory number of responses was not received yet, a decision will be made by 31 July 2024, whether this deadline should be further extended and the initiative is to be continued, based on a discussion with the collaborators.

1.f. Innovation Challenge 5

Interventions to change the course of climate impacts

Add text...

1.g. Innovation Challenge 6

Sustainable management of Blue Carbon ecosystems

Add text...

2. Selected highlights

2.a. Selected scientific highlights since last report (1-5)

Last report was submitted to SSC meeting, April 2023

IC4

The main highlights were the discussion process with collaborating partners and development of a questionnaire on "Best practices in integrating social and natural sciences in marine research: Case studies". The questionnaire covers the themes of context and history of the case studies, what has worked in integrating natural and social sciences in marine research so far within the selected case study context, challenges in integrating natural and social sciences in marine research, experience in the use of integrated knowledge in ocean governance/management, including local/traditional/indigenous/community knowledges, and suggestions on how to better integrate social and natural science knowledge in marine research.

2.b. Publications since last report

Please add all publications since last report to the table below (see notes for details on "Class" and "Activity" fields).

Publication with DOI	Class 1, 2, 3	Activity*

^{*}If appropriate, please list the IMBeR activity through / by / from / during which the publication arose

****Notes on publications****

Publications are logged in the IMBeR Zotero library which is publicly accessible online -

Publications since 2016 | Publications prior to 2016

Publications are categorised by "Class" and linked to "Activities":

<u>Class 1 publications</u> are specifically generated through/by/from/during <u>IMBeR activities</u> - for example, arising from IMBIZOs and IMBeR conferences such as the IMBeR open science meeting and the IMBeR West Pacific symposia and from the activities of the working groups, regional programmes and the SPIS scoping teams.

<u>Class 2 publications</u> are on topics relevant to the IMBeR Science Plan that benefitted from some interaction with IMBeR or <u>IMBeR activities</u>, for example by IMBeR symposium attendees, past and present SSC members, working group, regional programme and endorsed project members, or national contacts.

<u>Class 3 publications</u> are on topics relevant to the IMBeR Science Plan but for which there is no direct link to or benefit from an IMBeR activity. These might include publications by SSC members, working group, regional programme or endorsed project members or members of the IMBeR international community that were written as part of the normal scientific activity of the authors and would have occurred irrespective of IMBeR's existence. You can report Class 3 publications, but they will no longer be logged in the IMBeR database.

[See "What is an IMBeR publication?" for further information]

<u>Why list 'Class' and 'Activity'?</u> This helps us to declare authentically which publications IMBeR has helped to generate, and it makes it easier for us to demonstrate the value of the Regional Programmes, the Working Groups, and IMBeR in general, and it helps us to justify support for IMBeR activities when we can list tangible outputs.

2.c. Events, Meetings, and Workshops

List all international and national events, meetings and workshops. Describe the level of participation: e.g. chairing session/workshop, organising meeting. Include Endorsed Projects committee meetings and workshops.

Preliminary Meeting I: Case Studies of Best Practices in Integrating Social and Natural Sciences Initiative, 27 April & 04 May 2023 via Zoom.

Participants:

27 April 2023, 10.00-11.30 UTC (on-line)	04 May 2023, 15.30-17.00 UTC (on-line)
Michael Gilek, Södertörn University, Stockholm, Sweden Naveen Namboothri, Dakshin Foundation, Bangalore, India Pilar Haye, Alterna Instituto Milenio en Socio-ecología Costera/ Coastal Social- Ecological Millennium Institute (SECOS), Chile Stefan Gelcich, Alterna Instituto Milenio en Socio-ecología Costera/ Coastal Social- Ecological Millennium Institute (SECOS), Chile Tony Charles, SSF Stewardship Network, Saint Mary's University, Canada Andrea Belgrano, Swedish University of Agricultural Sciences/Gothenberg University, Sweden Luciana Araujo, IEE/University of São Paolo, Brazil Nireka Weeratunge, ICES, Colombo, Sri Lanka	Louise Gammage, University of Cape Town, South Africa Lynne Shannon, University of Cape Town, South Africa Nathan Bennett, IUCN, Canada Sebastian Villasante, University of Santiago de Compostela, Spain Andrea Belgrano Nireka Weeratunge

Following introductions to collaborators and their institutions, this preliminary meeting discussed the objectives of the initiative, proposed format and levels of engagement, and proposed themes for exploration in the case studies.

Meeting II: IC4 Case Studies of Best Practices in Integrating Social and Natural Sciences Initiative, 23 October 2023 via Zoom.

Participants

6.00-7.15 UTC (on-line)	15.00-16.15 UTC (on-line)
Michael Gilek	Nathan Bennett
Lynne Shannon	Tony Charles
Andrea Belgrano	Louise Gammage
Nireka Weeratunge	Pilar Haye
	Kelly Ortega Cisneros, University of Cape
	Town, South Africa

Yoshitaka Ota, Ocean Nexus, Japan/University of Washington, USA
Luciana Araujo
Andrea Belgrano
Nireka Weeratunge

The objectives of this meeting was to consolidate the methodology of the case studies, including a draft questionnaire, and further discuss the format of collaboration. Conceptual issues such as definitions of 'integration', 'data', 'best practices' and 'success' were discussed at length, as well as the themes, sub-themes and format of the draft questionnaire. It was decided to continue the discussion on the sub-themes and specific questions and finalise the questionnaire on-line, due to time constraints of collaborators, before it was received by the collaborators for completion.

3. International collaboration and links

Add text...

4. Input to management, policy and SOCIETY* over the last year

Add anything that is not covered under "1.c. Grand Challenge III"

*As previous reporting forms requested 'input to management and policy' only, please add any 'input to society' not captured in previous reports

Add text...

5. Education, outreach and Capacity Development

Add text...

6. Planned activities

6.a. Activities and Outreach and how they link to the Challenges (including, but not limited to convening sessions, meetings, summer schools, workshops, etc)

IC4

If the case studies initiative (Activity 1) were to be continued, we aim to produce a peer-reviewed journal paper by the end of the year. The results of this study were intended to be shared at an IMBeR-related event, if such an event were to be available in the future.

6.b. Upcoming papers (Community-Position-Review-etc)

Add text...

7. Funding

7.a. Funding from external sources

7.b. Funding proposals in progress or planned

7.c. Funding requested from IMBeR for 2024-2025

Include a brief budget and justify requests

8. Changes to Organisational Structure

Add text...

9. Images / Figures

****It is always good to have some recent photos / figures / infographics to create more exposure for the Regional Programmes, Working Groups, etc. These can range from those suitable for a very scientific audience, to those that would engage the general public. IMBeR would use these, on the website (e.g. http://www.imber.info/ and http://www.imber.info/en/news), in tweets (@imber_ipo), in presentations, etc. In addition, Future Earth (one of our sponsors) regularly asks us to provide high quality images for their glossy reports. These can highlight the activities of IMBeR and their other Global Research Projects (see pdfs of past Future Earth reports here https://futureearth.org/publications/annual-reports/)

So, please provide any images that you might think are useful. These can be pasted in this document or emailed as an attachment to imber@ecnu.edu.cn.****

10. Anything not covered above

Add text...

11. How to improve this form

Please give suggestions on how to improve this form and make it better next time.

Add text...

12. Appendices

Add appropriate meeting / workshop reports and include URLs (this helps to track where online content is missing)

Add text...