IMBeR Synthesis Activity

Action Plan for the Ocean

Background

Ensuring a healthy and sustainable ocean requires urgent action, including planning for and responding to ongoing change. The scale of the challenge is global and requires engagement from experts in multiple disciplines and with diverse perspectives from societies and communities across the world and uptake of expert-based options for action by decision makers. To generate the required options for action, IMBeR scientists are developing a risk-based framework for an *Action Plan for the Ocean* (Murphy *et al.* 2021, 2022). We plan to generate an internationally supported programme to develop and implement an *Action Plan for the Ocean*.

The challenge is to bring understanding of the oceans and the impacts of change together into a framework that can be implemented by national and international decision makers to prepare for and respond to inevitable change at scales of relevance. With the high degree of uncertainty in predicting future ocean change it is crucial that policy makers are provided with practical and feasible options for developing responses.

Activity 2023-2024

We held a series of discussions and meetings during 2023 to discuss the development of the Action Plan. We clarified the goal and steps required.

Goal: to progress the development of a risk-based action plan for responding to observed and predicted ocean change, including building capacity for applying such a plan at multiple scales.

The first stage of the activity is to assemble an integrated interdisciplinary ocean community that can set out a roadmap for the development of a risk-based Action Plan for the Ocean, including a blueprint for implementation and identification of a sustained set of actions that will assist decision makers in responding to ocean change.

Following last year's SSC meeting we held two IMBeR SSC/IMECaN online workshops in the second half of last year to develop plans for the next stage of the development of the Action Plan.

- Action Plan Discussion IMBeR SSC-IMECaN workshops held 25th and 26th October
 - A series of presentations which highlighted aspects of ocean assessment, global challenges and risk-based assessments, followed by breakout sessions.
 - Valuable discussions on key stakeholders and groups and next steps.
 - Thank you to the SSC and IMECaN and all those involved.
 - The meetings were positive and successful, and we presented the main outcomes
 of that activity at the virtual SSC meeting towards the end of last year.
 - o In follow-up discussions we have focussed on identifying practical, achievable next steps that build on IMBeR/IMECaN expertise in a collaborative effort in a series of stages.

A key outcome from the meetings and follow-up discussions was the importance of a broad, representative and diverse team to lead and undertake the next stage of the Action Plan development. We are aiming to develop a diverse team of representatives from 100 countries (or more) –the "OCEAN 100 Team"

The plan is that the OCEAN 100 Team will then draw on available assessments and local and regional knowledge to identify risks in ocean systems throughout the global ocean and develop the process to rank risks in different systems.

Targeted activities to develop the process.

The first stage is to develop the assessment and ranking of risks.

- Identify and develop the OCEAN 100 Team
 - Develop a team of 100 people from across IMBeR (SSC, RPs and WGs) and IMECaN community.
 - Ensure diverse perspectives and widest possible national and geographical coverage
 - This will be a collaborative effort in which everyone will be involved in outputs (e.g. reports, paper).
- Together (all) develop a survey to identify risks in the global ocean.
 - The aim is to for this to be applicable in different regions/systems.
 - Survey completion by the OCEAN 100 Team.
- Development of the risk ranking process.

With the risk listing and ranking we will then have the basis for the next stage of the Action Plan development.

We asked IMBeR SSC and IMECAN to help identify members to be part of the OCEAN 100 team and for assistance with the survey operation, and we are grateful for the input received. We are also very grateful for the support from John Claydon and Lisa Maddison from the Canada IPO office for the support in the operation of the IMBeR SSC/IMECaN workshops and in the development of this activity. We continue to consult with IMECaN on the process and are grateful for their continued input.

We currently have a list of proposed names and contacts for over 75 countries and are in the process of contacting individuals, and are carrying out a targeted effort to complete the process of generating the OCEAN 100 Team and develop the activity. We are aiming to hold our first online discussions for the OCEAN 100 team in the coming months.

There are a number of challenges involved in developing activities associated with building the OCEAN 100 Team and the Action Plan. A key activity is to develop the risk identification and ranking process for regional systems. To help develop that activity, we are in discussions with colleagues about the potential development of associated MSc research projects. We would also welcome input in this activity from IMBER SSC and IMECAN colleagues and the wider community. Please contact us if you are interested in being involved in this activity. That could include the potential provision of associated MSc project opportunities through your own institute/university, or if you have an interest in developing such projects.

We are grateful for the continuing support of IMBeR in this activity and are keen that the Action Plan activity continues to be associated with IMBeR. To broaden awareness of the activity, we are also planning to link the initiative to the UN Ocean Decade. We are also exploring other options for gaining funding and support for the initiative.

Other activities

Poster presentation on the Action Plan for the Ocean, AGU Ocean Sciences, New Orleans, 2024

Eugene Murphy, Carol Robinson, Alistair Hobday, Steph Brodie, Karen Evans, John Claydon and the IMBeR Action Plan Team. **Developing an Action Plan for the Ocean**. AGU Ocean Sciences, 2024.

We have also had a poster presentation accepted for the ICES Annual Science Meeting to be held in Newcastle, UK in September 2024.

Eugene Murphy, Carol Robinson and Alistair Hobday 18th July 2024