



INTERNATIONAL CORAL REEF INITIATIVE

ONLINE MEETING SUMMARY

23rd May 2023

Version 1 (30/05/2023)



#FORCORAL

TABLE OF CONTENTS

1	Opening Remarks	3
2	International ‘Policies’	3
2.1	A briefing on the Kunming-Montreal Global Biodiversity Framework	3
2.2	Sustainable Ocean Initiative Workshop on Ocean-related Capacity-building needs for the Kunming-Montreal Global Biodiversity Framework	3
2.3	CBD Target 3 meeting	4
2.4	Report from the Coral Reef Breakthrough	4
2.5	Sixth United Nations Environment Assembly (UNEA-6)	5
3	Implementation of the ICRI Plan of Action – Theme 1	6
3.1	Report of the Ad Hoc Committee on Resilience-Based Management	7
3.2	Report of the Ad Hoc Committee on Reef Restoration	7
4	Implementation of the ICRI Plan of Action – Theme 2	8
4.1	Updates from the Global Coral Reef Monitoring Network (GCRMN) Steering Committee	8
5	ICRI 37 th General Meeting	10
5.1	Updates	10
6	The Global Fund for Coral Reefs (GFCR)	11
6.1	Updates from the GFCR	11
6.2	Updates on the GFCR Advisory Board	12
7	Coral Research & Development Programme (CORDAP)	12
7.1	Updates from CORDAP	12
8	Upcoming events	13
8.1	Asia Pacific Coral Reef Symposium (APCRS)	13
8.2	Mirpuri Sailing Trophy & Ocean Award	13
8.3	Pacific Coral Reef Collective	14
9	Planning for El Nino	14
9.1	NOAA Coral Reef Watch Update	14
10	ANNEXES	15
10.1	Annex 1: List of Participants	15
10.2	Annex 2: Pacific Coral Reef Collective Itinerary	17
10.3	Annex 3: NOAA Coral Reef Watch Update May 17, 2023	19

1 OPENING REMARKS

The meeting was opened by Jennifer Koss, *NOAA Coral Reef Conservation programme & ICRI Co-chair*, delivering remarks, during which she expressed sincere apologies on behalf of Christine Dawson for her inability to attend the meeting.

Over 70 participants attended this informal online meeting (refer to Annex 1 for the list of participants) to learn more about the most recent ICRI updates through a series of informative presentations, summarised below.

2 INTERNATIONAL 'POLICIES'

2.1 A briefing on the Kunming-Montreal Global Biodiversity Framework

Joe Appiott, Coordinator for Marine, Coastal and Island Biodiversity, Secretariat of the Convention on Biological Diversity

This presentation focused on the Kunming-Montreal Global Biodiversity Framework (GBF), an international agreement aimed at addressing the critical issue of biodiversity loss and conservation. The detailed presentation provided a comprehensive overview of the GBF's visionary objectives for 2050, encompassing ambitious goals that will shape our future. Of the total 23 targets, many are related to the ocean with the majority related to coral reef issues. Ocean goals and targets were crafted to be generic and applicable across all biomes so that ocean issues could be spread throughout the framework, allowing better focus on addressing drivers of biodiversity loss and the need for broader engagement of the ocean community.

ICRI's actions with respect to the GBF, ICRI's Post-2020 ad hoc committee and COP15 will be reported on by Christine Dawson during ICRI's 37th General Meeting, September 2023. ICRI will work with CBD parties to support the implementation of the GBF through the integration/inclusion of coral reefs within country National Biodiversity Strategies and Action Plans (NBSAPs).

[Associated document – Pre-recorded message](#)

To strengthen the collaboration with the CBD Secretariat and to ensure a good consideration of coral reefs within the GBF, the ICRI Secretariat will be attending two upcoming events organised by the CBD Secretariat.

2.2 Sustainable Ocean Initiative Workshop on Ocean-related Capacity-building needs for the Kunming-Montreal Global Biodiversity Framework

The first, is the [Sustainable Ocean Initiative \(SOI\) Workshop on Ocean-related Capacity-building Needs for the Kunming-Montreal Global Biodiversity Framework](#), to take place virtually on 5-9 June.

The workshop aims to identify and discuss various capacity needs related to the implementation and monitoring of the Kunming-Montreal Global Biodiversity Framework in marine and coastal areas, including with respect to its goals, targets and indicators. It is expected that the workshop will produce a priority list of capacity needs that will be useful in guiding future capacity-building activities, including those under the Sustainable Ocean Initiative.

The Secretariat will join a panel under item 6 to give remarks regarding implementation considerations and capacity needs related to coral reefs through the lens of GBF targets 1-4.

2.3 CBD Target 3 meeting

The second event is the CBD Target 3 meeting, which is a development of a global partnership to support the achievement of Target 3 of the Kunming-Montreal Global Biodiversity Framework. It will take place in Cambridge, U.K. from 12 – 14 June 2023.

<https://www.cbd.int/meetings/PA-OM-2023-01>

2.4 Report from the Coral Reef Breakthrough

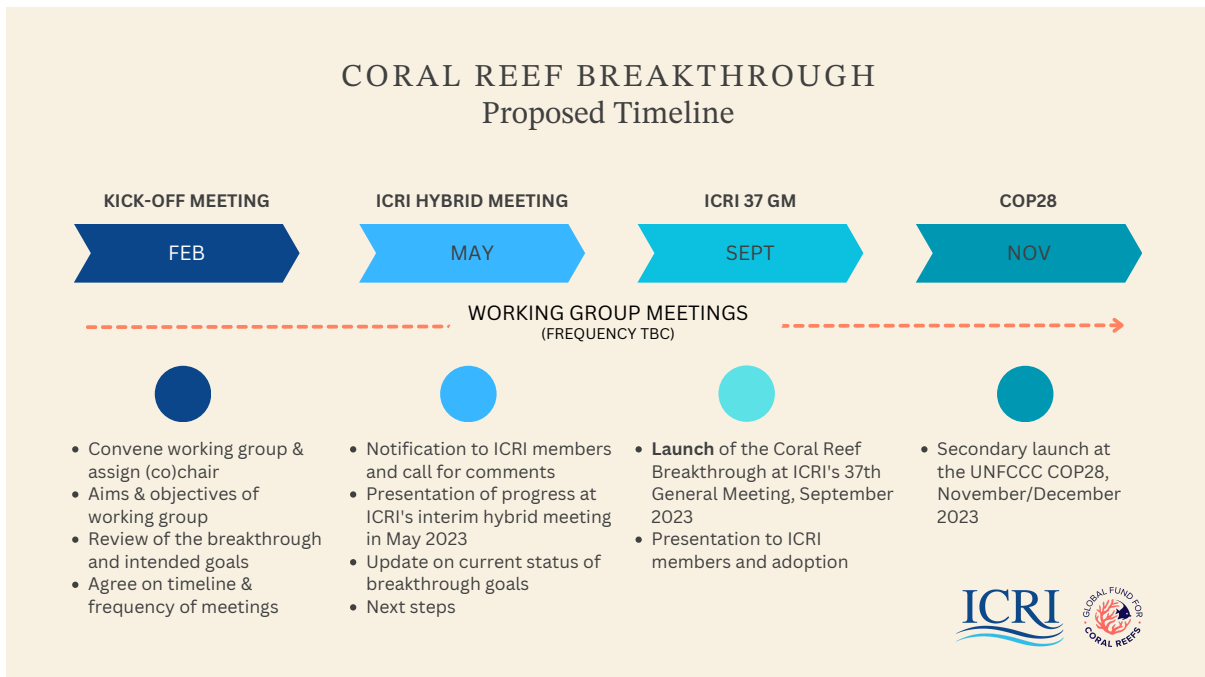
Margaux Hein, Consultant, international Coral Reef Initiative (ICRI)

Margaux's presentation elaborated on the objectives of the Breakthrough. Its primary aim is to mobilise widespread action towards attaining the 2030 targets set by the high-level climate champions Race to Resilience and to deliver on the Kunming-Montreal Global Biodiversity Framework. The ultimate objective of the breakthrough is to create science-based, actionable and measurable targets. The resulting end product will be a concise and clear document written with non-technical language due to its requirements to be accessible across a range of sectors. There are two key targets, backed by action points that will make up the backbone of this report.

Target 1– Secure the future of **XX km² of shallow-water tropical coral reefs** to support the resilience of one billion people globally by 2030.

Target 2 – Achieve an investment of **XX billion USD by 2030** from public and private sources.

This will be launched at the 37th ICRI General Meeting, with a secondary launch at COP 28 in November 2023.



[Associated document – presentation](#)

In order to determine whether members would be in support of the Coral Reef Breakthrough, we asked them to submit their answers via an online poll system (Figure 1).

Support for the Coral Reef Breakthrough

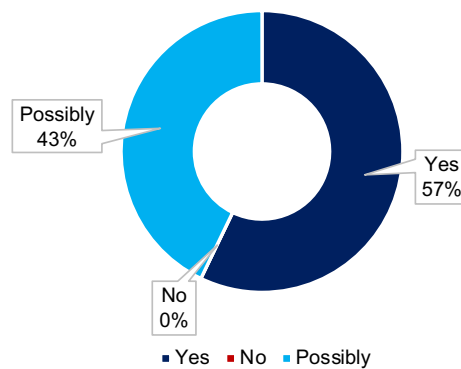


Figure 1: Poll results in answer to the following question: Will your organisation/country support the Coral Reef Breakthrough?

2.5 Sixth United Nations Environment Assembly (UNEA-6)

Linda Jonsson, United Nations Environment Programme (UNEP)

Due to a conflicting engagement, Ole Vestergaard, was unavailable and Linda provided the intervention on behalf of UNEP, on UNEA-6, which will be held in Nairobi, Kenya, from 26th

February – 1st March 2024. The overall theme is, ‘*Effective, inclusive and sustainable multilateral actions to tackle climate change, biodiversity loss and pollution*’. The previous resolution 2/12 Sustainable coral reef management has now been closed and there remains only one coral reef resolution, UNEA Resolution 4/13 Sustainable coral Reef Management.

Useful Link: <https://unea.unep.org/monitoring/>

The presentation also detailed key information and dates outlined below:

- Any intentions to table a draft resolution should be made at the annual subcommittee or at least 12 weeks in advance of UNEA-6.
- Draft resolutions to be submitted at the Annual Subcommittee meeting of the CPR from 20-24 November or at least 10 weeks in advance of UNEA-6
- Guidance on submission of draft resolutions will be provided after July 7th.

For more information on UNEA-6 please visit:

<https://www.unep.org/environmentassembly/unea-6>

3 IMPLEMENTATION OF THE ICRI PLAN OF ACTION – THEME 1

The four themes of the Plan of Action 2021 – 2024, that were adopted during the 36th General Meeting in 2021 were presented and listed below.

Theme 1 – Preparing for the Future: Promoting Resilient Coral Reefs.

Expected outcome 2024: Actions are taken to understand and promote the resilience of coral reefs and related ecosystems through policies and conservation practices that encourage resilience-based management and recovery of coral reefs worldwide.

Theme 2 - Coral Reef Science and oceanography: Advancing and Utilizing the Latest Science and Technology

Expected outcome 2024: New technologies and rigorous scientific data are used to report on the status of coral reefs worldwide and to guide science-based management and policies.

Theme 3 - Local Threat Reduction: Integrating Response Planning Frameworks

Expected outcome 2024: Various coral reef response plans are reviewed and integrated into a common framework to simplify and facilitate response for local coral managers.

Theme 4 - Diversity and Inclusion: Expanding the Coral Reef

Expected outcome 2024: The coral reef community is broadened to include underrepresented voices, including the indigenous, local and youth communities.

In order to determine which of the Plan of Action Themes members were currently implementing, or planning to contribute to, we asked them to submit their answers via an online poll system (Figure 2).

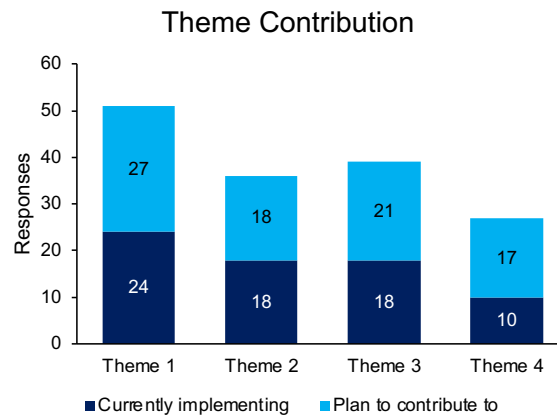


Figure 2: Poll results in answer to the below questions: 1) Which of the Plan of Action Themes are you currently implementing?, 2) Which of the Plan of Action Themes do you plan to contribute to?

3.1 Report of the Ad Hoc Committee on Resilience-Based Management

Dylan Horne, Great Barrier Reef Marine Park Authority

In light of the growing recognition regarding the fragility of coral reefs and their crucial contribution to both ecosystems and people, it has become imperative to prioritise the integration of coral reef resilience within worldwide marine conservation endeavours. This imperative extends to the development and implementation of comprehensive global policy frameworks. The report summarised some of the key achievements and collaborations that the committee has gone through since its formation at the 34th ICRI General Meeting in December 2019 such as the [RBM Policy Brief](#) and the [Resilience Hub](#). In addition, Dylan detailed key occurrences that have taken place since July 22, before finishing with future opportunities on how we might integrate resilience-based thinking into legislative management ideas. Lastly, Dylan mentioned the production of a series of case studies, with an aim of 5-8, but 15 ‘potentials’ on the horizon, to be launched during the next ICRI GM.

[Associated document - presentation](#)

3.2 Report of the Ad Hoc Committee on Reef Restoration

Ian McLeod, Australian Institute of Marine Science

The pre-recorded presentation detailed the actions undertaken by the committee since 2019 with over 30 members from government officials and researchers to NGO representatives and field practitioners.

The 2019 – 2023 Reef restoration Ad Hoc Committee Terms of reference were as below:

- Global needs and priorities for current and future reef restoration and adaptation programmes.
- Global research and development priorities to deliver the methods, productivity and cost breakthroughs needed to support restoration and adaptation programme objectives.
- Priority drivers and areas for reef investment (including mitigation policy).
- Identify mechanism(s) to improve joint planning and delivery of reef restoration and adaptation research and development.
- Identify (at a high level) opportunities to partner on reef restoration and adaptation research and development.

Plans for 2023 onwards include:

- Advise the 2023 Coral Reef Breakthrough working group.
- Policy and regulation collaboration.
- Continue to provide a platform for collaboration.
- Integration of new interventions into the toolbox for resilience-based management.
- Great Barrier Reef Intervention Symposium – 2024.

For more details on the Restoration Hub click [here](#).

[Associated document – presentation](#).

4 IMPLEMENTATION OF THE ICRI PLAN OF ACTION – THEME 2

4.1 Updates from the Global Coral Reef Monitoring Network (GCRMN) Steering Committee

Britta Schaffelke, GCRMN Global Co-ordinator, Australian Institute of Marine Science

Britta firstly provided an introduction of herself, noting that she has taken over the role of GCRMN Global Coordinator from David Souter, and also took the opportunity to confirm that the “Status of Coral Reef of the World: 2020” report has been finalised with DOI and ISBN. The final report can be downloaded at www.gcrmn.net/2020-report.

The data acquisition, homogenisation and analysis undertaken for the Status of Coral Reefs of the World: 2020 report, by the Global Coral Reef Monitoring Network (GCRMN), was very challenging. For future reports and for the use of the monitoring data across the GCRMN, it is clear that we need to urgently improve on data standardisation, data management and transparent code-based analysis tools.

Taskforces have been a good mechanism to move things forward within the network and one of the first actions this year has been to establish a data taskforce. It brings together various subject matter experts who are working on data management improvements and on innovative analysis platforms. In addition, all activities over the next few years will aim to empower the

Regional Coordinators and the Regional Nodes as the main mechanism for working towards delivery of the GCRMN goals.

To deliver the Network's goals we need strong regional nodes, in all of the 10 GCRMN regions. Ideally the nodes have robust and sustained long-term coral reef monitoring programmes. There will be many mutual benefits from close collaboration between GCRMN and the regional nodes as we develop and share knowledge and tools that can quickly build local and regional capacity in coral reef monitoring.

ROPME region

Stands for Regional Organization for the Protection of the Marine Environment Sea Area and includes 8 nations bordering the Persian/Arabian Gulf and the Sea of Oman. A North-eastern Arabia Coral Reef Monitoring Network Workshop was held 2 weeks ago. It brought together regional reef experts to standardize coral reef monitoring practices and share survey data. A primary outcome of the workshop was an agreement to establish a cohesive and comprehensive regional assessment of reef conditions by May 2024.

Western Indian Ocean (WIO) region

The GCRMN WIO node has implemented a regional Red List of Ecosystems (RLE) assessment of WIO coral reefs. Work is currently underway to increase the utility of this analysis to support national ecosystem reporting under the Global Biodiversity Framework of the Convention on Biological Diversity. The regional network was also revitalized with a workshop held in March and established a new Technical Working Group on coral reefs under the umbrella of the Nairobi Convention, which will focus on data management, improving monitoring for fish, building capacities and collaborations in the region, and addressing new priorities such as coral reef restoration.

Pacific region

The Pacific GCRMN node is currently working on a new regional report and aims to complete by the end of this year. The group is currently gathering and standardizing monitoring data. The new Pacific report will also be used as a case study for the implementation of a novel approach dedicated to data integration.

East Asia region

The last regional report was published in 2021 and was presented at the last ICRI GM. An East Asia Regional Workshop is planned in June, alongside the 5th Asia Pacific Coral Reef Symposium (APCRS) In Singapore. This WS will start discussions on the next analysis and regional database.

Caribbean region

The Caribbean Node has developed a new work plan (2023-2024). The focus is on strengthening capacity building in reef monitoring, increasing the integration of SocMon in monitoring effort, adapting GCRMN protocols and guidelines to better addressing emerging issues for Caribbean corals, and improving data management, integration and analysis for future regional/global reporting, in line with the GCRMN. The node also plans to develop a training programme on integrated reef monitoring for MPA managers in 2024 to address capacity building needs in selected Caribbean countries.

Managing coral reefs is about managing people. Ecological information is not presenting the full picture to inform the management of coral reefs and coastal resources. The other

foundations are socio-economic or “human dimensions” data, as they are needed for decisions that consider a balance of both human wellbeing and ecological health. ICRI’s global [SocMon Initiative](#) is providing this information and is conducted across 42 countries. In the last couple of weeks two important new documents have been published:

- [SocMon Strategic Plan Update 2022 – 2026](#)
- [Global SocMon Report 2022: Insights from more than 20 years of socioeconomic assessments, challenges and opportunities](#)

[Associated document - presentation](#)

5 ICRI 37TH GENERAL MEETING

5.1 Updates

Jennifer Koss, NOAA Coral Reef Conservation programme & ICRI Co-Chair, and Thomas Dallison, International Coral Reef Initiative Secretariat

The General Meeting (GM) will be held in Kona, Hawai’i from 18 – 23 September 2023 and will be centred around the Plan of Action theme 4 – *Diversity and Inclusion: Expanding the Coral Reef Community*. To therefore incorporate diversity and Theme 4 into the weeks outline of the GM we propose to have:

- 1. An opening protocol**
From the local Hawaiian Community
- 2. Cultural exchanges - Kaloko-Honokōhau**
To understand how traditional Hawaiian knowledge is integrated into management
- 3. A listening session – with local voices**
To involve communities and learn from their wisdom

A proposed outline of the GM in September 2023 will be as follows:

Date	Action
September 18 th -19 th 2023	Global Coral Reef Monitoring Network (GCRMN) Workshop and Steering Committee Meeting
September 19 th 2023	ICRI Welcome Reception
September 20 th 2023	Cultural Exchange and Listening Session
September 21 st – 23 rd 2023	ICRI General Meeting

The agenda and logistical information are being prepared by the Secretariat and will be communicated in due course. All updates will be posted [here](https://icriforum.org/events/37th-icri-general-meeting/) (<https://icriforum.org/events/37th-icri-general-meeting/>). The ICRI Secretariat has limited funding available to support the participation of some ICRI members. Please note that these decisions on funding allocation will take into account Theme 4. Please reach out to the secretariat should you need any further information.

In addition, please be aware of the upcoming key dates and deadlines related to the general meeting below.

Date	Action
June 1st 2023	Online registration opens
June 12th 2023	1. Member report template posted. 2. Draft agenda available. 3. Template for motion submission.
July 28th 2023	Deadline to provide comments for the agenda and/or propose new items
August 18th 2023	Deadline for motion submission
September 1st 2023	Deadline for Member report submission
September 4th 2023	1. Final agenda posted 2. Motion(s) presented posted
September 18th 2023	Meeting commences

To assess the number of people that would be attending the General Meeting, we asked members to submit their answers via an online poll system (Figure 3).

Attending the General Meeting

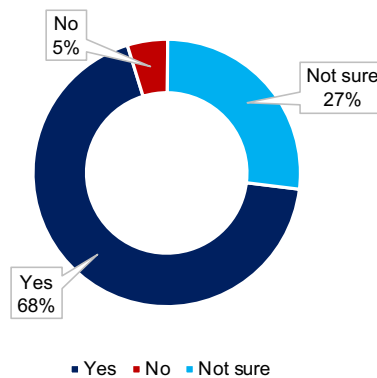


Figure 3: Poll results in answer to the question: Are you planning to attend the 37th ICRI General Meeting in Hawai'i?

6 THE GLOBAL FUND FOR CORAL REEFS (GFCR)

6.1 Updates from the GFCR

Yabanex Batista, Global Fund for Coral Reefs and Jennifer Koss, NOAA Coral Reef Conservation programme & ICRI Co-Chair

The GFCR Grant Fund Programme Portfolio now comprises of 10 approved programmes covering 13 countries, and 8 programmes under development from 10 countries. In addition, the announcement of two new executive board co-chairs were announced to oversee the catalytic grant programmes for the period of 2023 through to 2023. Representing the UK

Government, Briony Coulson, Head of International Sustainable Blue Finance, Department for Environment, Food and Rural Affairs (DEFRA), and representing UNEP, Leticia Carvalho, Head of the Marine and Freshwater Branch. In addition, the GFCR Advisory Board is represented by Jennifer Koss ICRI co-chair.

[Associated document – presentation.](#)

6.2 Updates on the GFCR Advisory Board

Jennifer Koss, NOAA Coral Reef Conservation programme & ICRI Co-Chair

Highlights from the first Advisory Board Meeting March 28, 2023 are as follows:

- Emphasis on the importance of having a more diverse group of co-implementers, especially local organisations, and less emphasis on larger international NGOs.
- Uplifting local communities.
- It will take time to scale reef-positive solutions to the \$10+ million range, therefore requiring more initial investment in incubation, technical assistance, and blended finance solutions.
- Contribute to GFCR's M&E Framework.

The second Advisory Board meeting is to potentially take place in September 2023.

[Associated document – presentation.](#)

7 CORAL RESEARCH & DEVELOPMENT PROGRAMME (CORDAP)

7.1 Updates from CORDAP

Rory Jordan, Coral Research & Development Accelerator Programme

CORDAP is a platform whose main activity is to fund, manage and execute coordinated, collaborative and targeted research and development programmes for coral and reef conservation and restoration. The presentation began with a brief timeline for implementation since the 2020 G20 meeting. Early 2023 saw the first scoping study roadmaps and the first projects were selected for funding. The Coral Accelerator Programmes, saw proposals from over 60 countries, including 33 led by developing countries. Of over 80 applications, 28 proposals were invited to submit a full proposal. Any developments on the next opening calls for proposals will be communicated in due course. Lastly, CORDAP have set up scoping studies to create roadmaps for:

- Coral Aquaculture
- Cold Water Corals
- Ecological Risk (hope to host soon)

What is coming soon?

- Final stages of Coral Accelerator Programmes evaluation
- Publish first CORDAP Technology roadmaps
- Develop next funding call
- Continue CORDAP Foundation operational set-up
- Expand programmes resourcing activities (Race to Resilience and Ocean Decade)
- Seeking coral partnerships for COP28 pavilion space and events

[Associated document – presentation.](#)

8 UPCOMING EVENTS

8.1 Asia Pacific Coral Reef Symposium (APCRS)

Thomas Dallison, International Coral Reef Initiative Secretariat

The ICRI Secretariat will be present at the 5th Asia Pacific Coral Reef Symposium (APCRS) from 18th - 23rd June 2023 with an aim to further build ICRI's network within the region, most notably regarding the Global Coral Reef Monitoring Network (GCRMN), an operational network of ICRI. As such, the ICRI Secretariat will also be joined by the GCRMN Global Coordinator, Britta Schaffelke from the Australian Institute of Marine Science (AIMS). ICRI will host a booth during APCRS to engage with stakeholders, coral reef experts and practitioners.

APCRS will be hosted under the theme “coral reef science and management in a rapidly changing world” - highly complementary with all 4 themes of ICRI's Plan of Action 2021 - 2024: Turning the Tide for Coral Reefs. In further support of ICRI and GCRMN's actions, ICRI will be represented by Tom Dallison during a panel session hosted by NOAA and moderated by Britta Schaffelke - “The UN Ocean Decade: Showcasing international coral partnerships for rapid changes and solutions”. The panel session will focus on the United Nation's Decade of Ocean Science for Sustainable Development 2021-2030 (Ocean Decade) - a global cooperative programme to expand scientific, social, and economic partnerships to support sustainable development and management of our coasts and ocean. The event will connect coral reef conservation and restoration practitioners and the Ocean Decade by showcasing how they can leverage the unique opportunity for an unprecedented level of collaboration for innovation and transformational change that the Ocean Decade presents. As the global partnership for coral reefs, ICRI, its members and the GCRMN have a significant role to play in the Ocean Decade, alongside the UN's Decade on Ecosystem Restoration.

If you will be attending APCRS, please contact Francis Staub, ICRI Global Coordinator - fstaub@icriforum.org

8.2 Mirpuri Sailing Trophy & Ocean Award

Thomas Dallison, International Coral Reef Initiative Secretariat

The 2023 Mirpuri Foundation Sailing Trophy Launches the “Ocean Award” focusing on Coral Reefs with the International Coral Reef Initiative. The fourth edition of the [Mirpuri](#)

[Foundation](#) Sailing Trophy, one of Portugal's flagship sailing events, will unfold in the bay of Cascais from 7th – 9th of July 2023. During the Sailing Trophy, the prestigious Mirpuri Foundation Ocean Award will be presented, for the third time, to companies or individuals who present a scientific project that has a beneficial impact on ocean health. This year, awarded in partnership with the International Coral Reef Initiative (ICRI), the Ocean Award invites companies and individuals to showcase their innovative, impactful, and ocean-positive solutions for coral reefs. The Ocean Award encourages companies and individuals to submit a scientific poster by 2nd June 2023 (see poster for details) that will be judged by an esteemed panel of sustainability and coral reef experts, including the Mirpuri Foundation and the International Coral Reef Initiative. The winning poster will receive a trophy and prize of €5,000.00 as recognition for the excellent contribution for a better world. The best posters will also be exhibited at the 2023 edition of the Mirpuri Foundation Sailing Trophy – providing the opportunity to receive global recognition and exposure for exemplary environmental work.

8.3 Pacific Coral Reef Collective

Dylan Horne, Great Barrier Reef Marine Park Authority

The Pacific Coral Reef Collective is to be held in Cairns, Australia, 30 July – 5 August 2023. The forum will bring together reef managers and designated partners from across the Pacific to collectively address our shared challenges facing coral reefs and explore innovative solutions being implemented to improve reef resilience. Please find the itinerary for the Pacific Coral Reef Collective in Annex 2. It can also be accessed via PDF [here](#).

9 PLANNING FOR EL NINO

9.1 NOAA Coral Reef Watch Update

Jennifer Koss, NOAA Coral Reef Conservation programme & ICRI Co-Chair

NOAA issued an El Nino Watch:

- From Nov 2023-Jan 2024, there is an 80% chance of at least a moderate El Niño and 55% chance of a strong El Niño.
- NOTE: 5-10% chance tropical atmosphere may not couple with the ocean, and El Niño fails to materialize
- Significant, bleaching-level heat stress is already present in the eastern Pacific Ocean, and more is expected

Validation (Bleaching Survey) Data Request:

NOAA Coral Reef Watch requests that stakeholders conducting in-water monitoring efforts share their in-water data (including sea surface temperature [SST] measurements) and observations of coral bleaching/no bleaching over the months ahead. These will assist us in properly calibrating/validating our satellite-derived products. Very importantly, it also will help us to discern if another global coral bleaching event is unfolding!

Please refer to the **Annex 3** for additional information.

10 ANNEXES

10.1 Annex 1: List of Participants

Name	Organisation
Alexis (Lexie) Sturm	NOAA Coral Reef Conservation Programme
Alfred DeGemmis	Wildlife Conservation Society
Alicia Eck-Nunez	Belize Fisheries Department
Amanda Brigdale	Australian Institute of Marine Science
Angelique Brathwaite	BLUE Finance
Anna Marsden	Great Barrier Reef Foundation
Antoine Pebayle	French Coral Reef Initiative (IFRECOR)
Beatrice Padovani Ferreira	Brazil
Benedicte Caremier	European Commission
Bob Glazer	Gulf and Caribbean Fisheries Institute
Britta Schaffelke	AIMS / GCRMN
Carol Phua	WWF International
Caroline Donovan	NOAA
Case Prager	USA Department of State
Chloe Harvey	Reef World Foundation
Chris Madden	Blue Ventures
Christien Christien	Coral Triangle Center
Christophe Blazy	SPAW-RAC
David Obura	CORDIO
Michael P. Crosby	Mote Marine Laboratory & Aquarium
Dylan Horne	Great Barrier Reef Marine Park Authority
Eena Nuevas	Philippines - Department of Environment and Natural Resources
Elle Gillard	UNESCO
Emily Darling	WCS / MERMAID
Emily Small	Bloomberg (observer)
Erica Towle	NOAA
Florina Jacob	Coral Guardian
Francis Staub	International Coral Reef Initiative
Géraldine Conruyt	SPAW RAC
Hally Blanchard	UNEP
Hannah Grice	UNEP-WCMC
Heidi Prisan	Commonwealth Secretariat
Jean Wiener	FoProBim (Haiti)
Jennifer Koss	NOAA / ICRI Co-Chair
Jérémy Wicquart	GCRMN
Jerker Tاملander	Convention on Wetlands
Jun Nago	Japan

Leilani Gallardo	Coral Triangle Center
Linda Jonsson	UNEP
Lisette Trejos-Lasso	Panama
Luciana Hemétrio Valadares	Brazil
Luciane Paixao	Brazil
Maher Amer	PERSGA
Margarita Victoria Caballa	COBSEA
Margaux Hein	ICRI Consultant
Margaux Monfared	International Coral Reef Initiative
María Paula Conrado	AIDA
Marianna Monneau	France / French Coral Reef Initiative (IFRECOR)
Marthen Welly	CTC
Martin Russell	Science and Conservation of Fish Aggregations (SCRFA)
Mauricio Mendez Venegas	Costa Rica
Mike Lameier	NOAA
Monique Curtis	Jamaica
Nabil Medaghri Alaoui	France
Nicole Trudeau	GFCR
Nina Lysenko	Dominican Republic
Penny Stock	UNDP
Peter Davies	SPREP
Richard Suckoo	Barbados
Robert Glazer	GCFI
Rory Jordan	CORDAP
Rowana Walton	UNEP-WCMC
Rubén Torres	Reef Check Dominican Republic
Sandra Moguel	AIDA
Scott Winters	Coral Restoration Consortium
Sean Porter	South Africa
Siara Jeanne Nulada	Philippines
Simon Harding	ICRS
Tadashi Kimura	GCRMN East Asia
Tamer Attalla	Egypt
Theresa Fyffe	Great Barrier Reef Foundation
Tom Dallison	International Coral Reef Initiative
Wilfrid Deri	Monaco
Yabanex Batista	Global Fund for Coral Reefs (GFCR)
Yasser Geneid	Egypt
Yuko Kitano	JWRC Japan

10.2 Annex 2: Pacific Coral Reef Collective Itinerary



Welcome

Day 1: Sunday 30 July 2023

Arrive in Cairns and check-in to the Hilton Cairns, 34 Esplanade located right on the waterfront in the heart of the Cairns CBD.

The week will start with the official opening event and dinner.

The event will include a Welcome to Country by Yirrganydji Traditional Owners, and will enable delegates to get to know each other and representatives of the Great Barrier Reef Marine Park Authority and our partners.

Shared challenges of MPA management

Day 2: Monday 31 July 2023

(breakfast, lunch and dinner included)

Learn how the Great Barrier Reef Marine Park Authority works with government, industry, stakeholders and community to protect this great natural wonder.

Hear how we balance environmental, economic and social benefits when managing activities in the Marine Park and how this management is based on the best available science. Delegates will have the opportunity to provide participants with an update on the key issues facing their coral reefs.

To bring a deeper understanding of these threats and to come up with better ways of jointly addressing them the afternoon will include a collective thinking workshop titled 'The future of our Coral Reefs'.

Assisted recovery and habitat protection

Day 3: Tuesday 1 August 2023

(breakfast, lunch and dinner included)

On a site visit to Green Island, delegates will hear about how the Reef Authority works with partners in the Reef Joint Field Management Program to conserve habitats and biodiversity, and encourage Marine Park compliance.

Witness how collaboration with stakeholders including industry, tourism operators, Indigenous Rangers and education organisations on site-specific stewardship actions can support assisted recovery and habitat protection.

View the Green Island Reef Rehabilitation Project and see how reef stars and Coralclip devices are being used to improve coral cover.

Delegates will also hear about the Crown-of-Thorns Starfish Control Program and how the targetable, cost-effective tool helps protect coral habitat resilience.

Future generations and community engagement

Day 4: Wednesday 2 August 2023

(breakfast, lunch and dinner included)

The Reef Authority's Reef Guardian program demonstrates how a hands-on, community-based approach can make a real difference to the health and resilience of the Reef. The program involves working closely with those who use and rely on the Reef.

The connection from the land to the Reef is recognised by Reef Guardian participants who are taking on voluntary actions beyond what is required by law and sharing information. Activities range from such diverse actions like wetland restoration and installation of fish ladders, to climate change mitigation actions and coastal protection.

Site inspections showcasing recent actions by participants in the Reef Guardian Schools and Reef Guardian Councils programs will be followed by a collective thinking workshop exploring how to facilitate greater knowledge exchange amongst our communities and how to increase education and awareness.

Reef monitoring and technologies to assist management

Day 5: Thursday 3 August 2023

(breakfast, lunch and dinner included)

As we head to the outer Great Barrier Reef hear the latest on the Eye on the Reef Monitoring and Assessment Program and Smartphone Application which enables anyone who visits the Reef to contribute to its long-term protection by collecting valuable information about reef health, marine animals and incidents.

Following lunch, the Australian Institute of Marine Science will brief delegates on ReefCloud, a digital tool that uses Artificial Intelligence (AI) - similar to facial recognition technology - to integrate monitoring efforts, rapidly analyse photos of coral reefs and assess their condition. Developed in partnership with Fiji, Palau and other collaborators, ReefCloud has the potential to transform coral reef monitoring and management by allowing the world's coral reef monitoring community to work together in real-time.

This will be followed by a question and answer session as we return by vessel to the mainland.

Protecting Sea Country

Day 6: Friday 4 August 2023

(breakfast, lunch and dinner included)

Traditional Owners have strong spiritual connections to their Sea Country and work tirelessly through their communities to maintain the heritage values of the Reef, managing Sea Country, recording oral tradition and expressing living culture. Aboriginal and Torres Strait Islander peoples are managing their country through active engagement in on-country management and policy and planning programs.

Hear from the Great Barrier Reef Marine Park Authority and Traditional Owners how community-based Traditional Use of Marine Resources Agreements (TUMRAs) are used to manage traditional resources and foster traditional knowledge. TUMRAs describe how Traditional Owner groups work in partnership with government and are accredited in legislation.

Visit with the Yirrganydji Traditional Owners - the saltwater people of the Yirrgay dialect. See and hear firsthand how their TUMRA is used to manage their Sea Country between Cairns and Port Douglas and an area that extends far offshore to include outer reefs and islands "to where the sun rises on the horizon".

After lunch, join a collective thinking workshop to discuss the next steps in implementing the *Pacific Coral Reef Action Plan 2021-2030*.

The Mandingalbay Yidinji people who are the Traditional Owners of both land and Sea Country and have been living on the edge of the Great Barrier Reef amongst the Wet Tropics World Heritage rainforest for thousands of years will host our final dinner at East Trinity Inlet.

Talanoa – Our collective future

Day 7: Saturday 5 August 2023

(breakfast and morning tea included)

This morning we will gather for Part 2 of the collective thinking workshop on the next steps in implementing the *Pacific Coral Reef Action Plan*.

All accommodation, meals and transport, including site visits, are included unless otherwise stated. Travel directly from your country of origin to Cairns is also included.

Transport to and from the hotel on the day of arrival and departure are not included.

10.3 Annex 3: NOAA Coral Reef Watch Update May 17, 2023

Synopsis

- NOAA has issued an El Niño Watch (1).
From Nov 2023-Jan2024, there is an 80% chance of at least a moderate El Niño and a 55% chance of a strong El Niño.
- Over the past 40 years, strong El Niño events have led to large-scale, severe coral bleaching.
- Significant, bleaching-level heat stress is already present in the eastern Pacific Ocean, and more is expected (2).
- NOAA Coral Reef Watch's Four-Month Coral Bleaching Outlook of May 16 predicts the heat stress will persist in the eastern Pacific and possibly develop in other coral reef regions between May and August 2023 (3).
- NOAA Coral Reef Watch recommends regular review of its Four-Month Coral Bleaching Outlook maps (https://coralreefwatch.noaa.gov/satellite/bleachingoutlook_cfs/index.php) and near real-time satellite product updates (<https://coralreefwatch.noaa.gov/product/5km/index.php>), for all regions of interest/concern, over the months ahead.

El Niño Predictions

- As of May 11, 2023, the NOAA National Centres for Environmental Prediction (NCEP) Climate Prediction Centre's (CPC) El Niño-Southern Oscillation (ENSO) Alert System (http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/ensodisc.html) is at: El Niño Watch. This official ENSO probability forecast is based on a consensus of forecasters at the NOAA CPC and Columbia University's International Research Institute (IRI) for Climate and Society.
- The most recent IRI plume (from May 19, 2023, https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/?enso_tab=enso-sst_table) indicates El Niño is likely to form in June-August 2023; it remains the dominant category during the rest of the forecast period (68-88% chance); and it is expected to persist into Northern Hemisphere winter.
- Due to the third westerly wind event that is predicted for mid-late May, and high levels of above-average ocean heat content, a potentially significant El Niño is on the horizon.
- At least a weak El Niño is likely, with the range of possibilities, from November 2023 to January 2024, being an 80% chance of at least a moderate El Niño to a 55% chance of a strong El Niño.
 - **NOTE:** it is possible that the tropical atmosphere does not couple with the ocean, and El Niño fails to materialize (5-10% chance).

NOAA Coral Reef Watch Satellite Products (Near Real-Time Monitoring of Heat Stress) – Answers the Question: Is my coral reef currently at risk for bleaching?

Pacific Ocean

- Eastern Pacific: NOAA Coral Reef Watch's daily 5km satellite Regional Virtual Stations (<https://coralreefwatch.noaa.gov/product/vs/data.php>) show significant heat stress is present.
 - Galapagos, Ecuador: Bleaching Alert Level 2 heat stress (associated with severe coral bleaching and significant mortality) has been present since late March. This marine heatwave is predicted to remain for at least the next 9-12 weeks.

- Alert Level 2 heat stress is present at the Costa Rica Pacific Regional Virtual Station; it is expected at all other Eastern Pacific Regional Virtual Stations in the next few weeks; and it is predicted to remain for at least the next 9-12 weeks.
- Micronesia: Alert Level 1 heat stress (associated with significant coral bleaching) is expected in the next 5-8 weeks in the Federated States of Micronesia, Palau, the Marshall Islands, Kiribati, Nauru, and Howland and Baker Islands.
- Papua New Guinea: following prolonged, extreme marine heatwaves in 2021 and 2022, Alert Level 2 heat stress, present since mid-November 2022, remains unabated. It should lessen to Alert Level 1 in the next 9-12 weeks.
 - **NOAA Coral Reef Watch would be grateful if local stakeholders in Papua New Guinea would share their in-water data and observations of coral bleaching/no bleaching from 2021 to the present. These will assist us in properly calibrating/validating our satellite-derived products for this region.**
- Papua and the Solomon Islands: Alert Levels 1 and 2 heat stress is expected in the next 5-8 weeks.
- East Asia: after multiple, back-to-back years of marine heatwaves, heat stress is building again in the South China Sea, stretching from Southern Taiwan to Vietnam. Alert Level 1 stress is expected in the next 9-12 weeks.
- Coral Triangle: a marine heatwave continues in the region, with almost all NOAA Coral Reef Watch daily 5km satellite Regional Virtual Stations (<https://coralreefwatch.noaa.gov/product/vs/data.php>) at a level of Bleaching Watch or higher. Reefs in the Banda Sea and Java Sea should receive some relief as cooler waters return in the next few weeks. All other reef areas in the Coral Triangle are expected to remain hot for the next 5-8 weeks.
 - **NOAA Coral Reef Watch would be grateful if local stakeholders in the Coral Triangle would share their in-water data and observations of bleaching/no bleaching. These will assist us in properly calibrating/validating our satellite-derived products.**

Indian Ocean

- South Asia: while all Regional Virtual Stations remain at a level of Bleaching Watch or higher, heat stress throughout the region is expected to dissipate in the next few weeks.
- Arabian Sea: a brief bout of Alert Level 1 heat stress is expected in the next few weeks.
- Gulfs of Aden and Tadjoura: Alert Level 1 heat stress is predicted to form in the next couple of weeks and remain.

Florida, Gulf of Mexico, and the Caribbean

- Florida: both the Southeast Florida and Florida Keys satellite Regional Virtual Stations indicate Bleaching Warning in the next 9-12 weeks.
- Gulf of Mexico: the three Regional Virtual Stations indicate Bleaching Warning in the upcoming 9-12 weeks.
- Southern Caribbean: all Regional Virtual Stations (excluding those in Brazil) show a level of Bleaching Watch or higher in the next 9-12 weeks.
- Western Caribbean: all Regional Virtual Stations indicate Bleaching Warning or higher in the upcoming 9-12 weeks.

NOAA Coral Reef Watch Modelled Outlook (Predictions) – Answers the Question: Will my coral reef be at risk for bleaching soon?

- NOAA Coral Reef Watch’s modelled Four-Month Coral Bleaching Outlook (https://coralreefwatch.noaa.gov/satellite/bleachingoutlook_cfs/index.php) of May 16, 2023 indicates there is a 60% chance that:
 - The marine heatwave presents along coastal South America, in the Pacific Ocean, will expand westward along the equator, and by late June will join with another marine heatwave that is developing in the Coral Triangle and is expected to spread eastward toward the Marshall Islands.
 - Marine heat stress currently developing in the South China Sea will reach Alert Level 1 by July and not dissipate until the end of September.
 - By late July, a marine heatwave is expected to develop to the north of the North-western Hawaiian Islands and spread south.
 - By mid-August, Alert Level 1 heat stress is predicted to develop along Florida, in the Gulf of Mexico, and in the Southern and Western Caribbean.

Validation Data

NOAA Coral Reef Watch requests that stakeholders conducting in-water monitoring efforts share their in-water data (including sea surface temperature [SST] measurements) and observations of coral bleaching/no bleaching over the months ahead. These will assist us in properly calibrating/validating our satellite-derived products. Very importantly, it also will help us to discern if another global coral bleaching event is unfolding!

Contacts:

Please contact Derek Manzello (derek.manzello@noaa.gov), Jacqueline De La Cour (jacqueline.shapo@noaa.gov), and/or coralreefwatch@noaa.gov with any questions.