

35th ICRI General Meeting

Meeting summary

(Feb. 23rd, 2021)

In light of the COVID-19 pandemic the ICRI Secretariat held the first ever virtual General Meeting (GM) on the 1st, 3rd and 5th of February 2021. The meeting was attended by an average of 130 participants and 60 of the 90 ICRI members were present.

A creative innovation for this GM was the presence of graphic facilitator Ms Fanny Didou, who produced beautiful illustrations throughout the three days.

Main outcomes:

3 new ICRI members were welcomed:

- Coral Restoration Consortium (CRC)
- Mote Marine Laboratory & Aquarium
- The European Union

3 resolutions were adopted:

- [Resolution to extend the ICRI Ad Hoc Committee on Resilience-based management \(PDF File\)](#)
- [Resolution to extend the ICRI Ad Hoc Committee on coral reef restoration and adaptation research and development \(PDF File\)](#)
- [Resolution to extend the ICRI ad hoc committee on the inclusion of a coral reef-related target in the Post-2020 Global Biodiversity Framework \(PDF File\)](#)

The [Global Coral Reef Monitoring Network](#) report on the Status and Trends of coral reefs of the world will be published at the end of March 2021

The Global Fund for Coral Reef, a UN Multi-Partner Trust Fund, was launched in September 2020.

The International Tropical Marine Ecosystems Management Symposium (ITMEMS6) was cancelled.

On the final day Christine Dawson, US State Department, announced that the United States of America will be the next chair of the ICRI Secretariat. Closing remarks were provided by the European Commissioner, for Environment, Oceans and Fisheries, Mr. Sinkevičius and HSH Prince Albert II of Monaco.

Opening of the meeting

Mr. Francis Staub, ICRI Coordinator, welcomed the participants and informed them about the logistics of the virtual meeting and introduced the graphic facilitation to be done by Ms. Fanny Didou over the three days. Before giving the floor to co-chair Margaret Johnson, Great Barrier Reef Marine Park Authority, Australia, Mr. Staub presented the three motions to be approved on Day 2 of the GM (Wednesday 3rd February).

Co-chair Ms. Johnson opened her introduction acknowledging the role of Aboriginal and Torres Strait Islander traditional owners as custodians of the Reef. She then presented the topics of the GM and welcomed her co-chairs from Monaco and Indonesia. As Ms. Johnson recalled, ICRI's international network manages over 70% of the world's coral reefs.

Dr. Hendra Yusran Siry acted as co-chair for Indonesia in place of Dr. TB Haeru Rahayu. After confirming Indonesia's commitment and sharing of common values, Dr. Siry presented the many programmes the Indonesian government launched or participated in and mentioned the many positive challenges for the way forward.

Monaco's co-chair H.E. Bernard Fautrier, Minister Plenipotentiary, Special Advisor of HSH the Sovereign Prince on environmental issues, reinforced the Principality's commitment in support of efforts to protect coral reefs and biodiversity, specifically mentioning the IPCC Report 2019, based on the Paris Agreements of 2015.

The three co-chairs praised the shared and continuous commitment of all ICRI members.

New ICRI members

Three new ICRI members were welcomed into the ever-growing ICRI family:

- **Coral Restoration Consortium (CRC)** is a community of practice comprised of scientists, managers, coral restoration practitioners, and educators dedicated to enabling coral reef ecosystems to survive the 21st century and beyond. CRC announced its next Coral restoration workshop, Reef Futures, will be held in December 2021. CRC also presented its 6 working groups and shared its 2020-2025 priorities.
- **Mote Marine Laboratory & Aquarium** is an independent, non-profit marine research education institution which recently celebrated two major breakthroughs in coral reproduction science: 1) In summer 2020 Mote created an entire 2nd generation of disease resistant and climate resilient coral 2) Star coral spawned in record time: 5 years. In 2020, Mote also established a Coral reef gene bank that will serve as a Noah's ark to preserve species and diversity.
- **The European Commission**, that last year adopted an ambitious 10-year biodiversity strategy. Under this strategy, the EC is committed to protect at least 30% of its marine

areas. It is also taking this commitment beyond its borders, leading by example and helping to agree to and adopt an ambitious post-2020 global biodiversity framework at the 15th Conference of the parties.

Report of activities of the ICRI Secretariat since the last GM

Francis Staub, Claire Rumsey

Francis Staub provided a short overview of the work implemented by the ICRI secretariat since the last meeting. He mentioned that a comprehensive report will be done at the end of the current secretariat.

Under Theme 1 of the Plan of Action (2018-2021), summaries of legislative and regulatory mechanisms for the protection of coral reefs and associated ecosystems for the Seychelles and France were produced. Costa Rica and Australia are both currently in progress.

Under Theme 3 of the Plan of Action (2018-2021) the report on “Live Reef Food Fish Trade Undervalued, Overfished and opportunities for change” was published and shared on the ICRI website.

Under Theme 4 of the Plan of Action (2018-2021), a “Noise Pollution in Coral Reefs - Legal and policy approaches at the national, regional and international level” report and an “information paper” were published in 2020.

Fostering partnerships- ICRI has also had the opportunity to become involved in a number of initiatives:

- ICRI was nominated as a supporting partner for the United Nations Decade on Ecosystem Restoration.
- The ICRI Secretariat has been part of discussions and attended several meetings related to the new G20 ‘Global Coral Reef R&D Accelerator Platform’, and has been invited to join the ‘Founding Committee Members’.
- ICRI partnered with the World Economic Forum and UpLink to launch the second Ocean Solutions Sprint (of which there were two coral winners: ‘Plant a Million Corals’ and ‘CHARM’).
- ICRI has been invited to be an Official Nominator of the Earthshot Prize.

Claire Rumsey gave an update on the ICRI comms including the new ICRI website which was launched on the 22nd of May (funded by the Government of Australia), and has so far received very good feedback. A recent addition to the new website is the Restoration Hub, which now features the Coral Restoration Database. Following the success of the restoration hub, ICRI is planning to create additional hubs. According to the members’ survey results, ICRI members are keen to see more information hubs on the website. The top two topics identified were 1) Resilience-based Management and 2) Marine debris.



ICRI's newsletter gained 600 new subscribers in 2020, bringing the total number to 2500. On Twitter, memberships grew in the last year by over 7500 new members.

6th International Tropical Marine Ecosystems Management Symposium (ITMEMS)

Dr. Hendra Yusran Siry, Indonesia

Dr. Siry of Indonesia updated the members on the status of the 6th ITMEMS. Unfortunately, due to the spread of COVID-19, Indonesia will no longer be able to host ITMEMS, which has now been indefinitely postponed.

Coral Reef at the International level

Global Fund for Coral Reefs

Pierre Bardoux Chesneau, Multi-Partner Trust Fund Office

The Global Fund for Coral Reefs is a new UN Multi-Partner Trust Fund. The Fund is a blended financial mechanism, which was launched in September 2020 by public, philanthropic, and private actors, including the Paul G. Allen Family Foundation, Prince Albert II of Monaco Foundation, BNP Paribas, Althelia Funds, United Nations Development Programme (UNDP), UNEP, and UN Capital Development Fund (UNCDF), with the goal of raising 500 million dollars.

International Union for Conservation of Nature (IUCN)

Minna Epps, IUCN

IUCN has a specific mandate through its newly adopted Resolutions and Recommendations which relate directly to the Post-2020 Global Biodiversity Framework process. The following three resolutions adopted by e-vote specifically address coral reefs and are the body of IUCN's general policy. This includes to explicitly recognize and incorporate the unique contribution of coral reefs in efforts to achieve global goals such as UN SDGs, the Paris Climate Agreement and CBD Aichi targets and the Post2020 Global Biodiversity Framework and to strengthen global and regional cooperation.

- o 023 - Protection of herbivorous fish for improved coral community (now Resolution 020)
- o 071 - Safeguarding coral reefs from harmful chemicals in sunscreen (now Resolution 058)
- o 122 - Conserving and protecting coral reefs through the post-2020 global biodiversity framework (now Resolution 105)

Report from the Global Coral Reef Monitoring Network (GCRMN)

David Souter, Australian Institute of Marine Science (AIMS)

The data collation and homogenisation process was completed in March 2020. The process yielded 195 coral reef monitoring datasets from 75 of the 88 coral reef bearing nations of the world. The resulting global data set had almost 2 million individual observations of the condition of corals reefs worldwide. This is an impressive achievement and is testament to the broader GCRMN community who have willingly contributed to generating an extraordinary global dataset.

Primary analysis of this global data set is also complete. Analyses focussed on modelling status of and trends in the cover of hard coral and algae at sub-regional, regional and global scales. Outputs of these analyses have been incorporated into a draft results chapter for the Status Report and used to develop a common template for each of the 10 GCRMN regional chapters of the report.

Draft report

The structure of the report has been discussed and agreed by the GCRMN Steering Committee and consists of two halves. The first half presents the results of analyses of the global dataset and is focused on the status and trends of coral reefs at a global scale, while the second half describes the condition of coral reefs within each of the 10 GCRMN regions at the scale of the entire region and at smaller sub-regional scales. In addition to the primary chapters, more than a dozen issues/topics (e.g., mass coral bleaching and marine heatwaves, ocean acidification, policy and management solutions) will be highlighted in specific boxes throughout the report. Each of the global chapters are currently in draft form and are being reviewed prior to finalisation and peer review. All draft regional chapters have been circulated to GCRMN Regional Coordinators to seek local expert input into the drafts. Local expert knowledge is essential to validate the results of statistical analyses and assist with the identification of primary drivers responsible for the status of and trends in coral reef condition within each region. Several regional chapters have been or are very close to complete, but others require additional work. Most of the highlights boxes have been drafted and are currently being reviewed. The Executive Summary of the report will be translated into several UN languages courtesy of UNEP. The core writing team is working toward finalising the report at the end of March.

Launch of the report

The GCRMN Steering Committee had initially identified several high-level international events at which the GCRMN Status Report could be launched to ensure significant impact among the target audience. Owing to the global COVID-19 pandemic, all of these events have been either cancelled or postponed. The GCRMN Steering Committee has re-evaluated launch opportunities and, considering the changing nature of the international meeting landscape, it is most likely that an independent launch/webinar event will be the preferred approach. The

GCRMN has been in discussion with the ICRI Secretariat, UNEP and Vulcan Inc to develop a broader communications strategy that will use different media to ensure that the report reaches a broader audience and has a longer 'shelf-life'. A suitable date will be determined in discussion with primary stakeholders and significant contributors to the report. In addition, a number of countries/organisations have expressed keen interest in being involved in the launch of the report or organising events associated with the report. These include Australia, Coral Cay Conservation, France, ICRS, Maldives, Myanmar, Reef-World Foundation, Thailand, UNEP, Vulcan and Wildlife Conservation Society.

[SocMon/SEM-Pasifika: The Global Socioeconomic Monitoring Initiative for Coastal Management](#)

Mary Allen, NOAA Coral Reef Conservation Program

SocMon has heavily invested in capacity building and facilitated community-based socioeconomic assessments in at least 42 countries. A new SocMon website is being developed within the ICRI website, and a Global SocMon Status Report can be expected by the end of 2021. The primary challenge SocMon faces is unsustainable funding for global monitoring. There is a need for collaboration and integration of GCRMN biophysical and socioeconomic monitoring efforts.

[Reports from the ICRI Ad Hoc Committees](#)

[Reef Restoration](#)

Ian Mc Leod, James Cook University

The ICRI ad hoc committee for reef restoration brought together representatives from interested ICRI members to provide a coordinating mechanism for international collaboration on coral reef restoration research and development and to advocate for the use of best practice restoration techniques. This presentation highlights key outputs and achievements from the committee during 2020.

[Post 2020 Coral Reef Target](#)

Emily Corcoran

Joseph Appiott from the Secretariat of the Convention on Biological Diversity provided an update on the process for developing the Post-2020 Global Biodiversity Framework, he also commended the work being done by ICRI to include coral reefs and encouraged the ad hoc committee to continue the work being done.

A report was provided on the progress made by the [ad hoc Committee](#) for engaging with the CBD post-2020 process since the last General Meeting as well as a proposed strategy for ensuring the elements of the Recommendation are taken up in the finalisation of the CBD GBF. Key areas of progress have been in the adoption of an [ICRI Recommendation](#) on the inclusion of coral reefs in the CBD Post-2020 Global Biodiversity Framework, and on-going work to

communicate the recommendation. It has been encouraging to see that seven of the indicators included in the ICRI Recommendation have been included in the draft monitoring framework for the GBF. Further information is provided in the [progress report](#) and [presentation](#).

The 35thGM adopted a [resolution](#) extending the terms of reference for the ad hoc Committee to use the Recommendation to inform negotiations for the new GBF and its monitoring framework in the run up to the CBD COP15.

Resilience-based Management

Teresa Sadkowsky

An update was provided on the [ad hoc Committee's](#) progress implementing the objectives of the Terms of Reference. The Committee plans to:

- Share information, best-practice case studies and build opportunities and capacity on resilience-based management through the development of the 'Resilience Hub' on the ICRI Website (modelled on the Restoration Hub). The Hub will contain key messages, resources on RBM and expert mapping of members conducting RBM around the world. Feedback on Hub contents is being sought from ICRI members.
- Help build understanding and get the commitment of policy makers on RBM through development of a policy brief. The brief will help de-mystify RBM and highlight its benefits.
- To help build capacity and tailor outputs to members' needs, the committee will also explore holding webinar or 'ask the expert' session in 2021.

A survey has been sent to members to inform this work. The meeting adopted a [resolution](#) extending the terms of reference for the ad hoc Committee to report at ICRI General Meeting 36.

Member's report

Ocean Watch and the global coral reef profile

Lauretta Burke, World Resources Institute (WRI)

The World Resources Institute (WRI) has released an interactive [Global Coral Reef Profile](#), which provides consolidated, map-based information and indicators on the value of coral reefs, what threats they are facing, what factors promote reefs resilience, and what actions are needed to save them. In addition to the Profile, WRI has created a [Coral Reef Data Hub](#), which includes 30 global data sets relevant to coral reefs – allowing users to more deeply interact with the data shown in the Profile. Further description and a request for feedback on the profile can be found on the [ICRI website](#). Dr. Burke called on all ICRI members to provide feedback on the overall impression of the profile, appearance, topics covered, text layout and



readability, data / map appearance, “Signs of Hope” and “Key Resources” sections of the platform, as explained in [Annex 2 - WRI Request to ICRI for Feedback on Global Coral Profile](#).

Update on Mission Iconic Reefs and other major restoration efforts underway in NOAA including the application of The Manager’s Guide to Coral Restoration Planning and Design
Jennifer Koss, NOAA Coral Reef Conservation Program

NOAA Kicked off Mission: Iconic Reefs last year which is the most comprehensive and coordinated restoration game plan to exist in the U.S. Florida Keys and covers 7 iconic reef areas. This large and ambitious effort is accomplished through a phased approach -- starting with 2% coral cover and progressing forward to our first target of 10% cover by 2025 and then to 25% cover by 2035. Restoration will start with fast-growing, reef-building species -- Elkhorn (*Acropora palmata*) and Staghorn (*A. cervicornis*) which had historically high coverage in the FL Keys reef tract and are not susceptible to Stony Coral Tissue Loss Disease. Each of the 7 Iconic Reefs sites will have its own implementation plan, covering each of these five restoration stages: Site Preparation, Coral Propagation and Planting, Grazer Supplementation, Stewardship and Maintenance, and Monitoring and Adaptive Management.

Link: [Restoring Seven Iconic Reefs: A Mission to Recover the Coral Reefs of the Florida Keys](#)

Coral Reef Condition: a status report for U.S. Coral Reefs based on 2012-2018 data from NOAA’s National Coral Reef Monitoring Program
Erica Towle, NOAA Coral Reef Conservation Program

NOAA completed an extensive project to create nine jurisdictional and one national summary status report that are aimed at an audience of policy makers and the general public. Overall, U.S. coral reefs are in fair condition, but are vulnerable and declining. Climate change is the greatest threat to reefs. Reefs closer to more dense human populations were more degraded than remote reefs. All 10 reports and accompanying methods documentation available to download for free as PDFs: https://www.coris.noaa.gov/monitoring/status_report/

Short presentation from International Coral Reef Society (ICRS)

Andréa Grottoli, ICRS President

Over the past year, the ICRS (coralreefs.org) has implemented their Plan of Action, which includes promoting science-based decision making, reducing the Society's carbon footprint, formalizing partnerships with other coral organizations, supporting a new science communication fellowship, and launching the Pledge for Coral Reefs (#pledge4reefs). Leading up to our virtual 14th International Coral Reef Symposium in summer 2021, we are preparing a science and policy statement outlining the state of coral science and proposing three strategies for rebuilding reefs and the policy actions needed to affect that rebuilding. The statement will be released in the next few months and be linked to the 14th and 15th ICRS

meetings in 2021 and 2022. Detailed information about ICRS activities in 2020 are outlined at <http://coralreefs.org/about-icrs/welcome/>.

[Update on the digital scaling of the Green Fins initiative – going Global](#)

Chloe Harvey, The Reef-World Foundation

The Green Fins initiative is a proven approach to reducing the impacts of marine tourism activities which is active in 11 coral reef countries around the world. In order to meet current demand, the approach needs to scale globally, to do this the initiative must go digital. The Reef-World Foundation have successfully secured the funds to embark on this digital project throughout 2021 to enable digital Green Fins membership which will complement the ongoing Green Fins verification membership. The online platform will generate information on industry environmental performance which may be used to inform policy decision making and conservation efforts.

[Pacific Coral Reef Action Plan](#)

Peter Davies, Pacific Regional Environment Programme (SPREP)

The Pacific Coral Reef Draft Action Plan is being developed by the Secretariat of the Pacific regional Environmental Programme in consultation with our Pacific Island Member Countries. The plan defines priority actions for conservation of coral reefs, for which regional scale economies will be beneficial. The plan will be finalised this year. For more information or to discuss partnerships please contact Peter Davies: peterd@sprep.org

[Creation of the first MPA in Jordan](#)

Belal Qtishat, Jordan Ministry of Environment

The Gulf of Aqaba is the only marine outlet to Jordan. Jordan has a 27 km of Coastal shoreline on the Red Sea. The Aqaba Marine Park was established in 1997, under the jurisdiction of the Aqaba Special Economic Zone Authority (ASEZA). It aims to conserve and manage the natural near-shore marine environment of the Aqaba south coast region with its rich biodiversity, while allowing sustainable benefit and enjoyment of the present and future generations of Jordanians and the global community. On June 3rd, 2020, His Majesty King Abdulla II gave his directive to declare the existing Aqaba Marine Park (AMP) as a new Aqaba Marine Reserve (AMR).

[Regional Activity Center for the Protocol on Specially Protected Areas and Wildlife of the Greater Caribbean Region \(SPAW-RAC\)](#)

Sandrine Pivard, SPAW- RAC

The SPAW-RAC, regional activity center for the Specially Protected Areas and Wildlife (UNEP-CEP) presented the actions developed during the last year in favour of the coral reefs and associated ecosystems. Beyond its classic activities as GCRMN-Caribbean chair (network

animation, 2020 report), projects leader (Carib-coast, NFWF...) and other participations (CRC ICRI), SPAW-RAC was proud to present two specific actions in 2020:

1. Leading a SPAW species working group dedicated to assessing parrotfish scientifically in the region. A very comprehensive assessment is about to be published and it goes with a large set of management recommendations and possibly protection for 16 species of parrotfish.
2. In order to support local initiatives and stakeholders, SPAW-RAC launched a call for proposals for small short-term grants; the initiative was very well received and SPAW-RAC is looking now for co-funders to replicate, and if possible upscale it. Details can be found in the latest newsletter: <https://car-spaw-rac.org/?Newsletter-No-26-November-2020>.

Update on Caribbean Stony Coral Tissue Loss Disease (SCTLD) Prevention and Response Activities, including the NOAA SCTLD Strategy

Jennifer Koss, NOAA

The NOAA Stony Coral Tissue Loss Disease (SCTLD) Strategy aims to:

- Expand capacity to respond to the disease outbreaks in the Atlantic-Caribbean region.
- Support timely, efficient, and effective action to slow the outbreak by unifying regional efforts under a NOAA response framework that is national in scope.
- Prevent and prepare for the potential spread of SCTLD to the Indo-Pacific region.

Links:

- [NOAA Strategy for Stony Coral Tissue Loss Disease Response and Prevention](#)
- [Strategy Summary](#)

The Economics of Biodiversity: The Dasgupta Review

Rebecca Nohl, Scientific Advisor, Dasgupta Review Team

The Dasgupta Review is an independent, global review on the Economics of Biodiversity led by Professor Sir Partha Dasgupta (Frank Ramsey Professor Emeritus, University of Cambridge). The Review was commissioned in 2019 by HM Treasury and has been supported by an Advisory Panel drawn from public policy, science, economics, finance and business.

The Review calls for changes in how we think, act and measure economic success to protect and enhance our prosperity and the natural world. Grounded in a deep understanding of ecosystem processes and how they are affected by economic activity, the new framework presented by the Review sets out how we should account for Nature in economics and decision-making.

Upcoming Decades

United Nations Decade on Restoration

Kim Friedman, Food and Agriculture Organization (FAO)

- The FAO UNEP led UN Decade of Ecosystem Restoration (<https://www.decadeonrestoration.org/>) has a focus on consultation and partnership building.
- The decades work “encompasses a wide continuum of practices that contribute to conserving and repairing damaged ecosystems” and provides a unique opportunity to transform food production systems to the needs of the 21st century (<http://www.fao.org/3/nd261en/nd261en.pdf>).
- The term ‘ecosystem restoration’ can be interpreted differently by the various actors people and sectors, ranging from a return to a non-degraded (e.g. a fully productive) state to ‘re-wilding’ as meaning the re-establishment of the an ecosystem without the presence of human influence. The restoration of forest landscapes, farming, livestock and fish-producing ecosystems should primarily contribute to restoring these ecosystems to a healthy and productive state, so that human needs for sustainable food production and livelihoods and ecosystem structure and functions are restored. The ultimate objective of these efforts should be to reverse the trend in unsustainable uses, while optimizing the ecological interactions between plants, animals, humans and the environment, while leaving no-one behind.

United Nations Decade of Ocean Science for Sustainable Development

Alison Clausen, UNESCO

Alison Clausen presented an update of the UN Decade of Ocean Science for Sustainable Development which started on 1 January 2021. She advised that the United Nations General Assembly had adopted a resolution including the Implementation Plan for the Decade on 31 December. She then provided an overview of the Ocean Decade Action Framework and the potential entry points for the coral reef community to engage in the Decade. She outlined the different engagement mechanisms including Calls for Decade Actions and the future Global Stakeholder Forum, as well as events planned throughout 2021.

Meeting closing

Christine Dawson, Director of OES/ECW Department of State of the United States of America cherished the recent visit of US President Joe Biden to the Court of Diplomats to reinstate and confirm the commitment of the United States of America towards the revival of international relationships and nature conservation. She confirmed that United States of America will be the next chair of the International Coral Reef Initiative (ICRI).

Ms Margaret Johnson reinforced Australia’s support of ICRI and celebrated its importance as a unique forum that brings together managers and experts to build the knowledge and capacity required to better manage the world’s coral reefs and to advocate for increased international efforts to protect them. Ms. Johnson expressed her sincere thanks to the governments of Monaco and Indonesia, as fellow co-chairs of the ICRI Secretariat from 2018-2021, and the many other supporters of this Secretariat, including Sweden, the Prince Albert II of Monaco Foundation and Vulcan. A special thanks was given to the Secretariat administrators, without which the activities of the Secretariat could not have occurred. Reflecting on the achievements of this Secretariat, Ms. Johnson recalled its work on the Post-2020 Global Biodiversity Framework, the reinvigoration of the GCRMN and the renewal of the ICRI website.

Mr Virginijus Sinkevičius, European Commissioner for Environment, Oceans and Fisheries gave some remarks as one of the newest members of ICRI. Commissioner Sinkevičius said: “Coral reefs are emblematic of rich marine life. Yet, the rapid degradation of these underwater worlds is also a very stark reminder of the pressures that human activity put on our planet, not least our oceans. The protection of these vital marine ecosystems is of great importance to biodiversity, sustainable food supply and the global climate system.”

Closing remarks were provided by HSH the Prince Albert II of Monaco.

His Serene Highness thanked the European Commission for its reiterated commitment in the protection of coral reefs. He also welcomed the United States of America as the new chair of the ICRI Secretariat and applauded the work that ICRI members have implemented over the Australia, Monaco and Indonesia chairmanship. He notably recalled the strong involvement of His Foundation in the protection of coral reefs which is at the initiative of the creation of the Global Fund for Coral Reefs. The importance of collaboration at formal and informal level was stressed, as the need to approach environmental matters taking into consideration science, politics, society and wellbeing. HSH Prince Albert II praised the efforts that led to the drafting of the IPCC Report and also paid tribute to the Global Coral Reef Monitoring Network in the perspective of the next global report. His Serene Highness pledged His personal commitment in the protection of the environment and coral reefs in particular, urging everyone to take action.

Annexes

- Annex 1 – Questions posed by ICRI members regarding the ad hoc Committee on RBM and the Post-2020 Global Biodiversity Framework and replies.
- Annex 2 – WRI Request to ICRI for Feedback on Global Coral Profile
- Annex 3 – List of participants

Annex 1 - Questions posed by ICRI members regarding the ad hoc Committee on RBM and the Post-2020 Global Biodiversity Framework

Questions regarding the ad hoc committee on RBM

(Question) How does the RBM AHC define RBM in relation other long-standing integrated approaches to management such as Integrated Coastal Zone Management, adaptive management etc? It is not quite clear if it is an entirely new approach, or a refinement of existing approaches?

The *ad hoc* Committee uses the following definition of Resilience-based management:

Resilience-based management (RBM) is defined as using knowledge of current and future drivers influencing ecosystem function to prioritize, implement, and adapt management actions that sustain ecosystems and human well-being (Mcleod et al. 2019) The main goal of RBM is to identify and prioritize management actions that enhance ecosystem resilience, which is the capacity of a system to absorb or withstand stressors so that the system maintains its structure and functions in the face of disturbance and change and can adapt to future challenges.

Source: RRN website: <https://reefresilience.org/resilience/resilience-based-management/what-is-rbm/>

Paper: Mcleod, E., K. Anthony, J. Maynard, P.J. Mumby, R. Beeden, N.A.J. Graham, S.F. Heron, O. Hoegh-Guldberg, S. Jupiter, P. MacGowan, S. Mangubhai, N. Marshall, P. Marshall, T.R. McClanahan, K. Mcleod, M. Nyström, D. Obura, B. Parker, H.P. Possingham, R.V. Salm, and J. Tamelander. 2019. The Future of Resilience-based Management in Coral Reef Ecosystems. *Journal of Environmental Management* 233: 291-301.

To help provide some clarity around the term, the ad hoc committee is planning to develop a short policy brief on RMB. This will provide a shared understanding of the concept which can then be used by ICRI members, and others, as a tool to explain RBM.

(Question) How does this committee intersect with the Reef Resilience Network - which has largely the same goals?

The *ad hoc* Committee acknowledges the work of the Reef Resilience Network (RRN), which has been for many years the go-to hub on resilience-based management. The proposed Resilience Hub on the ICRI website is not intended to replace or duplicate the RRN. It is proposed that the Hub will be a central location for ICRI members linking them to the wealth



resources and expertise on RBM that is already out there, including the Reef Resilience Network. The ad hoc Committee will work closely with the RNN and its partners (who are

represented on the Committee), as well as other ICRI members, to develop the Hub and ensure it is fit for purpose, provides benefit to ICRI members, and fills important gaps in RBM.

The ad hoc Committee would appreciate any feedback and views on what members would like to see on the Hub. Members could complete the [survey](#) to provide their input and/or get in touch directly at Katherine.martin@gbrmpa.gov.au and Teresa.sadkowsky@gbrmpa.gov.au.

Questions regarding the Post-2020

(Question) The example given (increase coral cover, connectivity etc.) but that could occur with a DECREASE in biodiversity. Are there other examples goals / indicators that deal with the biodiversity directly?

The 6 priority recommended indicators represent those indicators that are considered sufficiently ready now (or in the very near future) to use at the global and national scales. Their inclusion would be a significant improvement in being able to detect more than just coral cover - but as you point out not yet entirely sufficient.

to address your question, "Fish abundance and biomass" will be important to retain in the GBF monitoring framework to be able to understand something of the productivity / function of the reef and "cover of key benthic organisms - incl. fleshy algae to help detect changes in coral reef health - both also giving some indication in changes of biodiversity.

In addition, there are 5 indicators that are identified for priority development. It includes "hard coral genera richness" as an important indicator for looking at changes in coral community change and function. This includes an indicator for "structural complexity" that would help give more information on the diversity of reef building organisms and function of the system. However - whilst there are methods for these - it was felt they were not yet ready to be recommended for immediate inclusion in the framework.

More information about the recommended indicators and those proposed for priority development is provided here https://www.icriforum.org/wp-content/uploads/2020/05/Addendum_ICRI_Indicators_Adopted.pdf



Dear fellow ICRI members,

2 February 2021

Yesterday, WRI published a [Global Coral Reef Profile](#) and associated [Coral Reef Data Hub](#) on its open data platform, [Resource Watch](#).

The global profile provides consolidated information on the **status and outlook for coral reefs**, including their value, threats, legal protection, resilience, and the dependence of coastal communities on these ecosystems. It uses **interactive maps and graphics**, coupled with short narrative descriptions and details on data sources. The contents include:

- **Coral reef dependence and values** - tourism, fisheries, and shoreline protection
- **Local threats to coral reefs** - overfishing, coastal development, watershed-based pollution, and marine-based pollution
- **Global threats to coral reefs** - warming seas and coral bleaching (past, current and future warming), tropical cyclones, and ocean acidification
- **Coral reef condition** – summary of trends on coral reefs, which will be updated with forthcoming report from GCRMN, *2020 Global Report on the Status of the World's Coral Reefs*
- **Management, resilience, and other mitigating factors** – adjacent habitats (mangroves and sea grass), coral connectivity, marine protected areas, and signs of hope
- **Social and economic vulnerability to coral degradation and loss** – national level summaries
- **Conclusion**
- **Key Resources** - for further information on science and management, protected areas, status and trends, government and policy, ecosystem values, and how individuals can aid coral reefs

Note: We plan to improve **navigation** in the future. At present, **users scroll through the profile**.

This is a **Beta version** of the profile.

It will be augmented and improved in response to feedback from reviewers, such as you.

Please explore this Global Coral Reef Profile at <https://resourcewatch.org/dashboards/coral-reefs>.

We would like to get your feedback on:

- overall impression of the profile and its usefulness
- appearance
- topics covered
- text layout and readability
- data / map appearance – whether any colors are too difficult to see. (You can pan and zoom to areas you want to explore)
- The “Signs of Hope” and “Key Resources” sections- Are they balanced? Any omissions?

Deeper Spatial Data Exploration - You can explore all of the maps contained in the profile through the [Coral Reef Data Hub](#), which is part of the “Explore Data” Function on [Resource Watch](#). There, you could filter the data sets by the topic “Coral Reefs” or “Ocean” and begin adding data to your map, or you can use one of the links provided below.

Links to subsets of Data –

- [Coral reef-related data](#) (with MPAs, reef and mangrove locations already loaded in the map). You can then add additional data from the list of data on the left.
- [Coral reef ecosystem service values and MPAs](#) - includes maps of tourism, fisheries, and shoreline protection values.
- [Global Threats](#) – NOAA Coral Reef Watch Degree Heat Weeks (DHW) is active. Others can be added from the data list at the left.

Navigation - Once data are made active in the map, you can pan and zoom to explore. In addition:

- **Multiple data layers** - Some data have multiple layers to choose from (e.g. Tourism Value and NOAA Coral SST data). (See the layers button).
- **Opacity** - The button to the right of the layers button allows you to control the opacity of each layer.
- **Turning layers off** – The button which looks like an eye allows you to make a layer invisible, while still keeping it available in your map.
- **Metadata** – The “i” button accesses information about each data set. You should then scroll to the top of the left-hand column to get an overview of the dataset (and expand to “read more”). To return to your original map, you will need to click the reddish “all datasets” button.
- **Time Sliders** – Some data sets (e.g. Mangroves and Ocean Acidification projections) have time sliders to show change in the variable over time.

As you explore these data, please note whether you think they are the best global data set on the given topic, whether you find any errors in our presentation of the data, and whether there are additional global data sets you would like to see added to the global coral reef profile or the coral reef data hub.

Background Research

Our selection of data sets to include on the data hub and in the profile benefitted from a user needs assessment on [Data needs to support decision-making relevant to coral reefs](#), which was implemented by WRI in collaboration with TNC, National Geographic and Vulcan Inc.

Future Plans

We plan to develop ten regional dashboards reflecting coral reef values, protection, status and trends, corresponding to the regions used in the forthcoming GCRMN *Global Report on the Status of the World’s Coral Reefs*.

Please send your comments on the [Global Coral Reef Profile](#) and associated [Coral Reef Data Hub](#) to Lauretta Burke (lauretta@wri.org).

Development of the Global Coral Reef Profile has been supported by The UN Environment Program (UNEP), Global Environment Facility (GEF), and National Geographic.

Annex 3 - 35th ICRI General Meeting List of participants			
First Name	Last Name	ICRI representation	Title/Organization
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