



International Coral Reef Initiative (ICRI)

Member's Report | 37th General Meeting

19th – 23rd September 2023 Hawai'i, – United States of America

Reporting Period: 2021 – 2023

A. Member Information:

- Name of ICRI member: Department of Fisheries Malaysia
- Name of person(s) completing member's report: Izarenah Binti Md Repin
- Email: izarenah@dof.gov.my
- Are you a Focal Point: Yes No
 - If no, who are you completing the form on behalf of:
- Which was the last General Meeting you attended: None
- Will you be attending the 37th ICRI General Meeting: Yes No
- Member social media:
 - Twitter: @
 - LinkedIn:

B. Reporting on the implementation of ICRI Plan of Action 2021-2024: turning the tide for coral reefs. *Your responses will help inform the Secretariat about members' contributions toward the current Plan of Action*

Theme 1 - Preparing for the Future: Promoting Resilient Coral Reefs

1.A - Strengthening policies - Supporting conservation and recovery of coral reefs and associated ecosystems through resilience-based management frameworks.

- (ICRI) How have you embedded resilience-based management into your policies? (Tip – refer to the RBM policy brief: <https://icriforum.org/resilience-hub/>)

Answer:

While resilience-based management of coral reef habitat is not explicitly elaborated in current policies, Malaysia acknowledges the significance of integrating resilience-based management into the oversight of vital ecosystems like coral reefs. In Malaysia, several existing policies align with this objective, including initiatives aimed at designating resilience areas. These endeavors involve setting goals and targets for safeguarding coral reef habitats through the establishment of marine protected areas (MPAs). Such aspirations have been explicitly articulated in the National Policy on Biodiversity 2016-2025 and the Agro-Food Policy 2.0.

Despite the absence of a specific policy framework, Malaysia has undertaken several initiatives related to resilience-based management. One of the initiatives is a collaborative project between the Department of Fisheries Malaysia (DOFM) and Reef Check Malaysia (RCM) (further details provided below: 1B). Additionally, there have been successful efforts to reduce localized environmental impact and engage in restoration activities with local communities and stakeholders. Furthermore, an annual coral reef monitoring program, ongoing since 2007, plays a significant role in identifying resilient areas and monitoring coral reef responses to environmental changes. This monitoring data also facilitates the department's proactive measures in responding to disturbances and alterations in coral reef conditions. For instance, during the mass coral bleaching events in 2010 and 2016, data from the annual monitoring played a crucial role in decision-making, leading to temporary closure of affected areas to allow natural recovery and the identification of resilient reef areas capable of withstanding environmental changes.

1.B - Promote capacity building for applying resilience-based management approaches to coral conservation Ad Hoc Committee on Resilience-based Management.

- (ICRI) Please list any examples of leading practices, techniques and strategies for building reef resilience that your organisation/country is involved in. Include their location and extent, methods of implementation, financing, and an assessment of their results (or likely results), with links for more information if possible.

Answer:

The Department of Fisheries Malaysia collaborates with Reef Check Malaysia (RCM) to develop resilience-focused management plans for four Marine Parks located in Peninsular Malaysia. As part of this initiative, RCM conducted comprehensive resilience assessments in four Marine Parks and provided training to local communities in conducting such assessments. Consequently, a resilience-centered strategy was formulated to enhance the management of marine resources along the eastern coast of Peninsular Malaysia.

- (ICRI) Have you developed, or are you aware of, training materials that you can share?

Answer:

Reef Check Malaysia had developed training materials for conducting resilience surveys. These are available for sharing.

1.C - Promote and build capacity for the restoration of resilient coral reefs Ad Hoc Committee on Reef Restoration

- (ICRI) Please list any examples of reef restoration mechanisms that your organisation/country is involved in. Include their limits, conditions of implementation, financing and an assessment of their results, with links for more information if possible.

Answer:

The habitat restoration and rehabilitation program represent one of the main initiatives outlined in the National Agro-Food Policy 2.0, aimed at ensuring the preservation of habitats and fishery resources. Various entities, including the Department of Fisheries Malaysia (DOFM), have actively engaged in habitat restoration efforts within Malaysia. DOFM's approach to habitat restoration begins with a comprehensive habitat monitoring process to identify degraded areas, followed by efforts to pinpoint and mitigate the localized environmental impact in those areas. Subsequently, coral restoration activities are carried out using appropriate techniques tailored to specific locations. Notably, these restoration activities have been concentrated within the Marine Park Area. Due to this actively activity, DOFM has developed guidelines for monitoring and assessing the effectiveness of coral restoration initiatives. These guidelines are made available for sharing, and multiple training sessions have been organized to introduce the developed monitoring methods.

In addition to the efforts of the Department of Fisheries (DOF), several other organizations are also actively engaged in coral restoration activities in Malaysia. Reef Check Malaysia, WWF Malaysia in collaboration with Sabah Parks, work alongside local communities and stakeholders to conduct coral restoration initiatives in the waters of Sabah. Meanwhile, the Sarawak Forestry Corporation employs the Reef Ball method to conserve coral reef habitats within the Sarawak waters. Furthermore, non-governmental organizations (NGOs) and corporate entities, through their corporate social responsibility (CSR) programs, participate in coral restoration efforts.

Theme 2 – Coral Reef Science and Oceanography: Advancing and Utilizing the Latest Science and Technology

2.A – Coral monitoring capacity building

- (ICRI) Do you have information / case studies that could contribute to the update of the “Methods for ecological monitoring of coral reefs” (<https://portals.iucn.org/library/efiles/documents/2004-023.pdf>), especially related to the use of new technologies.

Answer:

The Department of Fisheries Malaysia (DOFM) has been engaged in an ongoing collaboration with Reef Check Malaysia (RCM) for the annual monitoring of coral reefs in Malaysian waters since 2007 and continues to do so using the Reef Check Method. The department has applied this method for an

extended period due to its concept of the citizen science approach, which enables a broad and efficient monitoring scope, complimenting for the department's limited human resources and financial capacity.

Furthermore, DOFM has partnered with researchers from Universiti Malaysia Terengganu (UMT) to conduct monitoring using the Coral Video Transect method. It should be noted that the successful application of this method necessitates training for DOF personnel.

DOFM has also joined forces with UMT researchers to develop a coral reef monitoring approach using a 2D Coral Health Index, which is an adaptation of the Coral Health Index (CHI). However, it's important to highlight that the implementation of this method is still in the research phase and has not yet been widely deployed.

- (ICRI) Are you aware, developing, or involved with, any capacity building activities related to the use of coral reef monitoring mechanisms, especially regarding the advancement of monitoring practices (noting technology)?

Answer:

As mentioned earlier, Malaysia has identified and recognized the potential of employing methods such as Coral Video Transect and the 2D-CHI approach in the context of coral reef monitoring. These methods have been evaluated for their suitability and effectiveness within the Malaysian coral reef monitoring framework, reflecting the country's commitment to exploring various innovative techniques for comprehensive reef assessment.

The Department of Fisheries Malaysia (DOFM) is also aware of the emerging technological approach known as environmental DNA (eDNA) for monitoring coral reefs. This cutting-edge method involves the detection and analysis of genetic material shed by organisms into the environment, allowing for a non-invasive and highly sensitive assessment of species presence and diversity within a specific ecosystem. Although the potential benefits of eDNA technology in coral reef monitoring are recognized, it is worth highlighting that as of now, this advanced approach has not yet been applied for coral reef monitoring in Malaysia.

***maybe boleh mention reason we chose to use Reef Check Method (citizen science), cutting edge method requires higher technical capacity and monetary capacity that the department lacks.*

2.B – The Global Coral Reef Monitoring Network (GCRMN)

The GCRMN would like to receive feedback on the Status of Coral Reefs of the World: 2020 report to improve the production of future regional and global reports. As such, please kindly respond accordingly to the questions below:

- (ICRI) In reference to the Status of Coral Reefs of the World: 2020 report:
 - Have you read the report?
 - Did you utilise the report and/or use the results and contents?
 - How could the next report be improved (considering the entire process from data acquisition to reporting)?

Answer:

Yes. The Department of Fisheries Malaysia (DOFM) is well-informed and has actively participated in providing data. For DOFM, the "Status of Coral Reefs of the World: 2020 Report" has served as a valuable point of reference in the strategic planning, management, and advocacy efforts pertaining to coral reef management.

Here are several suggestions on key enhancements throughout the entire process, from data acquisition to reporting:

- (i) Enhanced Data Collection and Integration: Expand data sources: Include data from a wider range of sources, promote standardized data collection to ensure comparability across regions and time periods*
- (ii) Stakeholder Engagement: Encourage greater collaboration among stakeholders, including governments, scientists, local communities, and NGOs, to share data and insights.*
- (iii) User-friendly reporting: Present findings in a format that is easily accessible and understandable by a broad audience, including policymakers and the general public.*
- (iv) Policy Recommendations: Provide clear and actionable policy recommendations based on the report's findings to guide conservation and management efforts.*
- (v) Communication and Outreach: Develop a comprehensive communication strategy to disseminate the report's findings to a wide range of stakeholders, including policymakers, scientists, educators, and the public.*

- (ICRI) The GCRMN intends to establish time-bound task forces to address specific priority issues and to build capability and capacity across the network. As a first priority, a Data Task Force was established. The Task Force brings together subject matter experts to increase the transparency, reproducibility, and robustness of future GCRMN reports alongside capacity in monitoring, data collection, analysis, management and sharing of coral reefs and associated ecosystems. The Task Force will focus on:
 - Improving data integration and analyses to facilitate the production of GCRMN regional and global reports; and
 - Promoting good data management practices based on FAIR data principles for the coral reef scientific community.

Tell us if you will be interested in joining the Data Task Force, or upcoming task forces. More so, please inform us if you have data to contribute to upcoming regional, or global, reports and if you will be organising and/or partaking in any capacity building activities regarding data monitoring:

Answer:

Yes, the Department of Fisheries Malaysia (DOFM) and its affiliated partners are keen on participating in the Data Task Force to share published data and information. We can contribute our published data from annual monitoring efforts and other research and surveys that have been undertaken.

Please tick the most appropriate box/boxes:

- (ICRI) Do you have (or in the process of developing) a coral reef response plan(s) on, for example, but not limited to:
 - coral disease
 - vessel groundings
 - bleaching
 - invasive species outbreaks (lionfish and COTS)
 - large storm events
 - other:

If yes, please provide us with more information.

Answer:

Malaysia has an ongoing review of its National Coral Bleaching Response Plan, which is set to be extended into its next term. This plan encompasses several key recommendations, including the establishment of ongoing monitoring initiatives, the implementation of coral restoration efforts in areas impacted by reef degradation, restrictions on human activities in bleaching-affected reef zones, and the establishment of a communication chain for disseminating information and status updates to both stakeholders and the general public.

Additionally, the Department of Fisheries (DOF) has developed a guideline for investigating vessel grounding incidents and assessing damage resulting from such incidents. These guideline is available to be shared but it is currently provided in Bahasa Malaysia.

Theme 4 - Diversity and Inclusion: Expanding the Coral Reef Community

4.A – Connect with youth audiences:

- (ICRI) Are you developing (or planning to develop) any communication campaigns or outreach materials? What will your primary target audiences be and what would your key messages include?

Answer:

Through Reef Check Malaysia, they are currently have trained 80 local islanders in Tioman Island Marine Park to participate in conservation activities including ghost net removal, COT management, coral reef monitoring, bleaching monitoring. They are also currently replicating that project in three other project sites. Similar to that, initiatives has been conducted by WWF Malaysia in engaging youth in Sabah to participate in conservation activities.

4.B - Collaborate with Indigenous people and seek to incorporate indigenous and local knowledge into policies and management plans:

- (ICRI) How do you incorporate indigenous and local knowledge into policies and management frameworks. Please provide us with some examples. Do you have any plans or strategies to further promote this incorporation?

Answer:

The Department of Fisheries (DOF) has initiated and is actively executing a program at the research level. This program aims to identify marine habitat areas of significance to indigenous communities and document their valuable local ecological knowledge. The objective of this study is to assess areas with the potential for protection and transformation into sites akin to Other Effective Conservation Measures (OECM) or Indigenous and Community Conserved Areas (ICCA). The current on-going study sites is in Carey Island, Selangor studying the local ecological knowledge of the indigenous Mah Meri community.

- (ICRI) Do you have any, or know of, best practices to solicit Indigenous and local community knowledge?

Answer:

No.

C. Kunming-Montreal Global biodiversity framework

- (ICRI) Do your current National Biodiversity Strategies and Action Plans (NBSAP) incorporate coral reefs? If not, what kind of material will be useful for your Country/organisation to ensure coral reefs are integrated in the revision of NBSAPs?

Answer:

Malaysia's National Policy on Biological Diversity 2016-2025 takes into account the conservation and management of coral reefs in the stated targets. This commitment is stated in Goal 3, which centers on the protection of our vital ecosystems, species, and genetic diversity. Furthermore, this policy is currently undergoing revisions to align with the objectives outlined in the Kunming Montreal Global Biodiversity Framework (KMGBF).

- (ICRI) How are you planning to implement the Kunming-Montreal Global biodiversity framework. For you, which targets are the most relevant for coral reefs?

Answer:

As mention above, KMGBF will be aligned with our National Policy on Biological Diversity which is currently in the consultation process with various stakeholders.

Targets are relevant for coral reefs:

Target 1 – incorporating biodiversity in MSP

Target 2 – Coral restoration

Target 3 – effective management, area based management and OECM concept

Target 7 – pollution and plastics
 Target 14 – mainstreaming biodiversity in multiple policy
 Target 19 – financing
 Target 22 - IPLCs

D. Upcoming events

Please tick the most appropriate box/boxes:

- September 19th – 23rd 2023: 37th ICRI GM, USA, Hawaii
- 30th November – 12th December 2023: 28th Conference of the Parties to the United Nations Framework Convention on Climate Change
- 26th February – 1st March 2024: 6th session of the United Nations Environment Assembly
- 10th – 12th April 2024: 2024 UN Ocean Decade Conference, Barcelona, Spain.
- 2024: United Nations Biodiversity Conference (COP16) of the Parties to the UN Convention on Biological Diversity (CBD), Turkey.
- Other

Please list any upcoming regional / international events relevant to ICRI that your organisation plans to attend:

E. Publications. Please list relevant publications / reports you have released recently (+ add a link if possible)

Publication	URL
2022 Annual Reef Check Survey report	https://www.reefcheck.org.my/reports
Coral Bleaching Response Plan 2016-2020	https://marinepark.dof.gov.my/en/library/publications/
Garispanduan Bagi Menilai Keroskan/Kemusnahan Terumbu Karang di Taman Laut Malaysia (Guidelines for Assessing Damage/Destruction of Coral Reefs in Malaysian Marine Parks)	
Garispanduan Sistem Pemantauan dan Penilaian Projek Pemulihan Karang	

(Coral Restoration Project Monitoring and Evaluation System Guidelines)	
Coral Reef Resilience Rapid Assessment of Pulau Sibu-Tinggi, Pulau Tioman and Pulau Redang	
Garis panduan Penilaian Tapak Selam (Diving Spot Assessment Guideline)	

F. ICRI Member Feedback. What do you find most valuable about being a member of ICRI as well as completing the ICRI member reports? If you have any ideas to improve the Member Reports, please list below:

Answer:

DOF Malaysia values our membership with ICRI as this is a good platform to share and exchange ideas, best practices and concerns on coral reef conservation and management among members. Since this platform is also participated by International Organisations specialising in various technical aspects of coral reef science, restoration, conservation and other cross cutting areas, DOF benefits from this network to gain insights and new knowledge to build our capacity.

By completing member reports, DOF could share our practices. Members could learn from us and also provide comments and advice on how we could improve ourselves.

G. Contact information & member information. (Note that this information will be posted on the ICRI website on your member page: <https://icriforum.org/members/>).

Please use the table below to provide us updates to your member’s focal points as well as the blank cells to indicate changes to information (please add more rows, as needed):

Focal Point 1:	
<i>Name:</i>	Izarenah Binti Md Repin
<i>Title/Organisation:</i>	Fisheries Officer/ Department of Fisheries
<i>Email:</i>	izarenah@dof.gov.my
Member page updates:	
<i>Section</i>	<i>Update</i>
Do you have new resources (reports, guidelines etc.) that you would like to display?	



<i>Resource description</i>	<i>URL</i>

Thank you very much for sharing your valuable experiences and information with ICRI. Members reports, meeting outputs and resources will be uploaded to: <https://icriforum.org/events/37th-icri-general-meeting/>