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: Thailand
- Name of person(s) completing member's report: Thamasak Yeemin
- Email: thamasakyeemin@yahoo.com
- 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: ICRI GM 36 (2022, online)
- Will you be attending the 37th ICRI General Meeting: ☐ Yes ☒ No
- Member social media:
  - Twitter: @dmcrth
  - 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:

- *The Thailand's 5-year Coral Reef Management Action Plan (2022 - 2026) emphasizes the coral reef management plan for using ecological and socio-economic indicators for warning and enhancing coral reef resilience, and promotes cooperation with international organizations, particularly ICRI, IMO, UNESCO, IUCN, and IOC.*

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:

- *A study on assessing the resilience potential of coral communities at Hin Ang Wang, the Western Gulf of Thailand was carried out by conducting field surveys on benthic components, community structure of scleractinian corals, diversity and density of juvenile corals, composition and abundance of macrobenthic invertebrates and reef fish. The resilience-based management is proposed to support natural processes and maintain coral reef resilience. (Pengsakun, S., Hamanee, S., Saengthongsuk, O., Avirutha, A., Panida, R., Klinthong, W., Yeemin, T., Sutthacheep, M. 2022. High resilience of coral communities at Hin Ang Wang, Surat Thani Province and a proposed management strategy. Ramkhamhaeng International Journal of Science and Technology 5(2): 21-31.)*

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

Answer:

- *Marine SMART Patrol Manual for the Tarutao National Park/Marine Protected Area of Thailand (in collaboration with ASEAN Centre for Biodiversity (ACB), Biodiversity Conservation and Management of Protected Areas Program (BCAMP), Department of National Parks, Wildlife and Plant Conservation).*

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:

- *Department of Marine and Coastal Resources (DMCR) has conducted a long-term coral restoration project in the Gulf of Thailand and the Andaman Sea.*

- *Department of National Parks, Wildlife and Plant Conservation (DNP) carried out coral restoration projects at several reef sites, such as Mu Ko Phi Phi, Mu Ko Chang, etc.*
- *Ramkhamhaeng University has conducted two research projects on coral restoration:*
  - Development of coral nurseries for selection of high stress-tolerant coral fragments from shallow reef flats.
  - Developing Technology for active coral restoration: Micro-fragmentation technique, coral colony fusion and maintaining genetic diversity of coral populations.
- *Some references of coral restoration in Thailand.*
  - Sutthacheep, M., Aunkhongthong, W., Sangmaee, N., Pengsakun, S., Jungrak, L., Kowinthawong, C., Jowantha M. Yeemin, T. 2022. Assessing coral growth at the coral nurseries in Chumphon Province, the Western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 5(1): 10-17.
  - Klinthong, W. Chamchoy, C., Sutthacheep, M., Wongnutpranont, A., Sangmaee, N., Pengsakun, S., Damphupha ,P., Hamanee, S., Avirutha, A., Kongdee, S., Yeemin, T. 2022. Density of coral recruits on dome-shaped coral nurseries in Mu Ko Chumphon National Park, the western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 5(2):1-7.
  - Sutthacheep, M., Chaithanavisut, N., Sangsawang, L., Pengsakun, S., Klinthong, W., Aunkongthong, W., Limpichat, J., Yeemin, T. 2023. Growth rates of coral micro-fragments from a coral restoration project at Koh Larn, Chonburi Province, Thailand. Ramkhamhaeng International Journal of Science and Technology 6(1): 30-40.

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:

- *Thailand initiated the preparation of coral reef monitoring guidelines for managing marine protected areas in the WESTPAC region at a workshop under the 7th National Marine Science Conference in 2022 and consultations with coral reef experts in the region. Several workshops will be organized to finalize the coral reef monitoring guideline by invited experts and participants with a focus on proposed indicators, methods, new technologies, and potential applications. The workshops will also promote capacity building in coral reef monitoring and marine protected area management.*

- (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:

- *Several agencies in Thailand are developing certain techniques for coral reef monitoring programs, particularly using aerial drone survey and some remote sensing techniques.*

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? *Yes.*
  - Did you utilise the report and/or use the results and contents? *Yes.*
  - How could the next report be improved (considering the entire process from data acquisition to reporting)?

Answer:

- *Strengthening the GCRMN nodes and networks.*

- (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 is 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:

Theme 3 - Local Threat Reduction: Integrating Response Planning Frameworks

Please tick the most appropriate box/boxes:
Answer:

1. *Taskforces: Thailand supports GCRMN East Asia. Some coral experts are interested in working with the GCRMN East Asia network.*

2. *Data to contribute (GCRMN Region Country, Data description): Thailand will provide some coral reef monitoring data to GCRMN East Asia network*

3. *Upcoming capacity building activities: Training courses concerning coral reef monitoring will be conducted in next year.*

- (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:

- *Some information can be access at https://www.dmcr.go.th/*

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:

- *Department of Marine and Coastal Resources (DMCR) and Department of National Parks, Wildlife and Plant Conservation (DNP)have conducted some programs for youth (https://www.dmcr.go.th/ and https://www.dnp.go.th/).*

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 Thailand's 5-year Coral Reef Management Action Plan (2022 - 2026) supports community leaders and strengthens the integration of local people, such as local guide clubs, youth groups, small-scale fishermen etc., in coral reef conservation.*

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

Answer: -

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:

- *Coral reefs will be integrated in the revision of NBSAP.*

- (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:

- *Thailand will develop programs which are relevant to targets 1, 2, 3, 8, 10.*

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:

Answer:

- *2024: 22nd - 25th April 2024, 2ndUN Ocean Decade Regional Conference & 11th WESTPAC International Marine Science Conference, Bangkok, Thailand*

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

Publication	URL

Report on Situation of Marine and Coastal Resources and Coastal Erosion.	*https://www.dmcr.go.th*
Coral community structures on shallow reef flat, reef slope and underwater pinnacles in Mu Ko Chumphon, the Western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 4(1): 1-7. (2021)	*https://ph02.tci-thaijo.org/index.php/RIST/index*
Demographic composition of juvenile corals on shallow reef flats and reef slopes in Mu Ko Ang Thong National Park, the Western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 4(1): 8-18. (2021)	
Comparing composition and abundance of macroinfauna on sandy beaches and coral reefs at Mu Ko Chumphon, the Western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 4(1): 19-26. (2021)	
The abundance of macroalgae and herbivory in some degraded reefs and coral recovery at Samui Islands. Ramkhamhaeng International Journal of Science and Technology 4(1): 35-42. (2021)	
Abundance of coral recruits on settlement plate experiments from Mu Ko Angthong, the Western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 4(2): 19-27. (2021)	
Derelict fishing gears and other marine debris from coral communities on underwater pinnacles in Chumphon Province, Thailand. Ramkhamhaeng International Journal of Science and Technology 4(2): 28-37. (2021)	
A new method for citizen science to monitor coral reefs in Thai waters. Ramkhamhaeng International Journal of Science and Technology 4(3): 11-20. (2021)	
Distribution, prevalence, and severity of coral syndromes on shallow reef flats in Chumphon Province, Thailand. Ramkhamhaeng International Journal of Science and Technology 4(3): 36-44. (2021)	
Composition and abundance of meiofauna on the coral reefs at Mu Ko Surin National Park, the Andaman Sea. Ramkhamhaeng International Journal of Science and Technology 5(1): 1-9. (2022)	
Assessing coral growth at the coral nurseries in Chumphon Province, the Western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 5(1): 10-17. (2022)	*https://ph02.tci-thaijo.org/index.php/RIST/index*
Density of coral recruits on dome-shaped coral nurseries in Mu Ko Chumphon National Park, the	

western Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 5(2):1-7. (2022)	
High resilience of coral communities at Hin Ang Wang, Surat Thani Province and a proposed management strategy. Ramkhamhaeng International Journal of Science and Technology 5(2): 21-31. (2022)	
Coral community on an underwater pinnacle at a new dive site in Surat Thani Province, Thailand. Ramkhamhaeng International Journal of Science and Technology 5(3): 1-12. (2022)	
Assessing coral communities on underwater pinnacles as new marine protected areas at Ko Tao, Surat Thani Province. Ramkhamhaeng International Journal of Science and Technology 5(3): 25-43. (2022)	
Assessing coral reef fish biomass at Ko Khai Nok, the Andaman Sea. Ramkhamhaeng International Journal of Science and Technology 5(3): 44-54. (2022)	
Growth rates of coral micro-fragments from a coral restoration project at Koh Larn, Chonburi Province, Thailand. Ramkhamhaeng International Journal of Science and Technology 6(1): 30-40. (2023)	
Assessing genetic diversity and connectivity of the dominant massive coral Porites lutea in the Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 6(2):45-58. (2023)	
Meiofaunal communities in coral reefs and an underwater pinnacle in Trat and Rayong Provinces, the Eastern Gulf of Thailand. Ramkhamhaeng International Journal of Science and Technology 6(2):59-70. (2023)	
Diversity of scleractinian corals, microbenthic invertebrates and reef fish on underwater pinnacles in Surat Thani Province, Thailand. Ramkhamhaeng International Journal of Science and Technology 6(2): 71-85. (2023)	
Diversity and Ecology of Lobophora Species Associated with Coral Reef Systems in the Western Gulf of Thailand, including the Description of Two New Species. Plants 11, 3349. (2022)	*https://doi.org/10.3390/plants11233349*
1-(6-Methylsalicyloyl)glycerol from stony coral-derived Micromonospora sp. J Antibiot 76, 83–87 (2023).	*https://doi.org/10.1038/s41429-022-00578-8*

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:

- *ICRI is a very important network for coral reef research and management. The ICRI member reports provide intensive information for members.*

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:	
Name:	*Mr. Ukkrit Satapoomin*
Title/Organisation:	*Director of Marine Resources Conservation Division/Department of Marine and Coastal Resources (DMCR)*
Email:	*ukkrit@yahoo.com*
Focal Point 2:	
Name:	*Dr. Thamasak Yeemin*
Title/Organisation:	*Lecturer, Ramkhamhaeng University*
Email:	*thamasakyeemin@yahoo.com*
Focal Point 3:	
Name:	
Title/Organisation:	
Email:	
Member page updates:	
Section	*Update*
Do you have new resources (reports, guidelines etc.) that you would like to display?	
Resource description	*URL*

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/