

## Terms of Reference for the GCRMN Data Taskforce

adopted by the GCRMN Steering Committee 16<sup>th</sup> May 2023

### Background:

The Global Coral Reef Monitoring Network (GCRMN) was established by the International Coral Reef Initiative (ICRI) with the primary task of reporting on the status and trends of the world's coral reefs.

The most recent global report, released in 2021, was the first global report based on quantitative analyses of a synthetic dataset, resulting from the integration of data shared by more than 300 collaborators, making it possible to estimate temporal trends in hard coral and algae cover at regional and global scales (Souter et al. 2021). The challenges encountered during the production of this report highlighted the urgent need to develop data solutions for coral reef monitoring data.

The GCRMN Implementation and Governance Plan (2019) encourages the establishment of time-bound and outcome-oriented Task Forces to address specific priority issues. The *Data Taskforce* has been established under the GCRMN Steering Committee to increase the transparency, reproducibility, and robustness of future GCRMN reports, and to support the four primary goals of the GCRMN.

### Objectives of the Data Taskforce:

1. To improve data integration and analyses to facilitate the production of GCRMN regional and global reports.
2. To promote good data management practices based on FAIR<sup>1</sup> data principles for the coral reef scientific community.

### Context for the Data Taskforce:

The Taskforce will take into consideration and, if appropriate, build on relevant data, resources, information, and knowledge from existing initiatives to achieve the previously referenced objectives.

The Taskforce will closely collaborate with other GCRMN Taskforces that may be established, to improve data management and data integration across a wider suite of indicators (e.g., including fish and socio-economic monitoring data), directed by the GCRMN Core Team and facilitated by the GCRMN Steering Committee.

The Taskforce will closely collaborate with the GCRMN Core Team Technical Coordinator, whose role is to facilitate the production of future GCRMN reports using advanced data management approaches.

The Taskforce's deliverables will support and facilitate data analysis and reporting within the GCRMN as well as outside the network (as permitted by data ownership and sharing agreements).

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<sup>1</sup> Findability, Accessibility, Interoperability, and Reuse of digital assets (Wilkinson et al. 2016)

### Deliverables of the Data Taskforce (first 12 months of operation):

1. Integrate major individual datasets on benthic cover on coral reefs based on the FAIR data principles, starting with the GCRMN Pacific region as a pilot study.
2. Recommend approaches to enhance coral reef data management, attribution, sharing, access, and integration.
3. Recommend inter-platform standards to integrate datasets, based on existing global standards.
4. Recommend an implementation strategy for selected approach(es) and standards.
5. Develop code-based tools for condition and trend analyses of coral reef monitoring data.
6. Produce manuals and training material for the use of developed tools and approaches.

**Co-chairs:** Dr Erica Towle (subject matter expert representing ICRI host) and Dr Jérémy Wicquart (GCRMN Technical Coordinator).

**Members:** Two subject matter experts from the GCRMN Steering Committee Membership. The Taskforce will draw on other experts as needed to undertake its work.

**Duration:** The Taskforce will be in place for 12-24 months, as required.

**Working procedures:** The Taskforce will conduct its work via email, telephone, video conference and, when required, in person meetings or workshops. The Taskforce Chair will report on progress to the GCRMN Steering Committee and seek endorsement of any recommendations.

### References:

GCRMN 2019. GCRMN Implementation and Governance Plan. International Coral Reef Initiative (ICRI). <https://www.gcrmn.net/about-gcrmn/igp/>

Souter, D., Planes, S., Wicquart, J., Logan, M., Obura, D., Staub, F. 2021. Status of coral reefs of the world: 2020 report. Global Coral Reef Monitoring Network (GCRMN)/International Coral Reef Initiative (ICRI). <https://gcrmn.net/2020-report/>

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