



**SIOFA SC Workshop to progress future protected area designation (WS2024-PAD)**

*Virtual, 13 and 20 November 2024*

**WS2024-PAD-04**

# Progressing marine protection in SIOFA

The Deep-Sea Conservation Coalition (DSCC)

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<b>Distribution</b>	Public ✓ Restricted <sup>1</sup> <input type="checkbox"/> Closed session document <sup>2</sup> <input type="checkbox"/>
<b>Abstract</b>	<p>The DSCC welcomes the decision by SIOFA SC to progress the SIOFA Standard Protocol for future protected areas designation, and urges the Workshop to advise the SC to recommend to the MoP to fully adopt the Protocol, the benthic protected areas proposed by the Cook Islands, a work plan for consideration and implementation of further protected areas, and the establishment of a VME registry,</p> <p>The DSCC further urges the Workshop to include additional criteria for evaluating protected area proposals into the Protocol to align with international practice, incorporate incorporation of additional BBNJ Annex I Indicative Criteria for Identification of Areas, recognition of seamounts as VMEs into the criteria in para 2, recommend that the MoP integrates consideration of SIOFAs contribution to delivering global initiatives relating to the identification and implementation of marine area protection into their marine protected area approach, and to establish a VME register.</p> <p>DSCC also submits paper by Lissette Victorero, Karli Thomas, Barry Weeber, Bronwen Golder, Duncan Currie. Integrating Science and Policy for recognising Seamounts as Vulnerable Marine Ecosystems (2024) (WS2024-PAD-05).</p>

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## RECOMMENDATIONS

That the workshop:

- Amend criteria concerning the consideration of VMEs for marine protection to formally recognise seamounts as VMEs.
- Adopt additional criteria for evaluating protected area proposals, including
  - Areas set aside for the purposes of providing climate refugia; and
  - Criteria to align with the BBNJ Agreement and IUCN guidelines.
- Incorporate additional principles to be considered in formulating recommendations for protected areas:
  - The consideration and integration of relevant global initiatives, including UNGA resolutions, the designation of protected area spaces within SIOFA by other bodies, and global commitments to improving the health of the ocean; and
  - The need for a strengthened precautionary approach given projections of climate change impacts.
- Agree on and submit to the SC for their endorsement:
  - An amended Standard protocol for future protected areas designation;
  - The Benthic Protected Areas (BPAs) proposed by Cook islands for protected status;
  - A timeline for the development of a SC work plan for the determination and implementation of further protected area proposals.
- Propose that the SC
  - Establishes a VME register;
  - Review Ecologically or Biologically Significant Areas (EBSAs) found fully or partly within SIOFA area for adoption as protected areas under the Protocol, including the Saya del Malha Bank;
  - Review the area for the inclusion of Important Marine Mammal Areas (IMMAs), including those that may already be found within the SIOFA area for inclusion as protected areas;
  - Review any other areas set aside by other initiatives that align with the Protocol criteria; and
  - Develop a proposal for consideration by MoP on how to integrate global initiatives of relevance.

## 1: INTRODUCTION

### 1.1 Background

In 2017, the SIOFA MoP4 adopted the *Interim Standard Protocol for Future Protected Area Designation*, drawing from relevant guidelines from the IUCN, FAO and CBD and the academic literature related to the identification of criteria for determining protected area designation. A revised Protocol was adopted in 2018, again with an interim status, along with five interim benthic protected areas. Members of the SIOFA have continued to follow voluntary closures of several other proposed benthic areas.

Since 2018, the SC has undertaken further work to update the Protocol (SC-04 Annex L), and have undertaken significant research to further improve the Protocol, including bioregionalisation, consideration of the applicability of the Marxan systematic planning tool and habitat suitability modelling to predict distribution of VMEs from which to develop a network of reserves, a review of possible management measures to prevent significant adverse impacts on

VMEs and an assessment of existing significant adverse impacts from fishing activities. In June 2023 the BBNJ Agreement was adopted, including Part III: Measures such as Area-Based Management Tools, including Marine Protected Areas and Annex I: Indicative criteria for identification of areas.

## 1:2 Relevant International Obligations and Guidelines

### *SIOFA Convention*

The SIOFA Convention includes a requirement to protect the biodiversity of the marine environment and to the application of the precautionary approach and the ecosystem approach as general principles (Article 4 (a),(b),(e),(f)).

### *Food and Agriculture Organisation (FAO) Code of Conduct for responsible fisheries*

The FAO Code of Conduct specifically requests that States and RFMOs apply a precautionary approach to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. (Article 6.5). While the Code itself is voluntary, the SIOFA Convention requires implementation of the precautionary approach.

### *Convention on Biological Diversity (CBD)*

Article II of the CBD defines a protected area as: “a geographically defined area, which is designated or regulated and managed to achieve specific conservation objectives”. Article 5 requires cooperation for the conservation and sustainable use of biological diversity. Article 8 requires in-situ conservation.

### *FAO International Guidelines for the Management of Deep-Sea Fisheries in the High Seas (the FAO Guidelines)*

Paragraph 42 sets out specific criteria to assist in the identification of VMEs. An Annex to the Guidelines includes examples of potentially vulnerable species groups, communities and habitats. These include cold water corals and hydroids (e.g. stony corals, gorgonians and black corals), sponge communities, bryozoans, and seep and vent communities.

### *FAO Technical Guidelines on Marine Protected Areas (as a fisheries management tool)*

The FAO issued technical guidelines for the development of marine protected areas in 2011, noting that MPAs are one category of spatial-temporal closures often applied by fisheries managers. These guidelines provide suggestions on MPA definitions, the application of the ecosystem approach to fisheries management, the biological and ecological relevance of MPAs in the fisheries context, social and economic factors, MPA planning, including legal, institutional and policy frameworks, information required to support MPA planning, and possible future directions.

### *IUCN guidelines for applying protected area management*

The IUCN has defined a marine protected area as “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values”. The Convention on Biological Diversity (CBD) has recognised this as equivalent to their definition (Dudley et al 2022). They revised their guidelines in 2019 to take into account more focused marine protected area categories.

The IUCN guidelines also note that “temporary or permanent fishing closures that are established primarily to help build up and maintain reserves stocks for fishing in the future and have no wider conservation aims or achievements

are not considered MPAs". The protection of VMEs which have a wider conservation aim could meet the IUCN criteria for an MPA.

*United Nations BBNJ Agreement (Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction*

The BBNJ Agreement objective relating to Area Based Management Tools includes ( Part III for ABMTs (Art. 17)):

- (a) Conserve and sustainably use areas requiring protection, including through the establishment of a comprehensive system of area-based management tools, with ecologically representative and well-connected networks of marine protected areas;
- (b) Strengthen cooperation and coordination in the use of area-based management tools, including marine protected areas, among States, relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies;
- (c) Protect, preserve, restore and maintain biological diversity and ecosystems, including with a view to enhancing their productivity and health, and strengthen resilience to stressors, including those related to climate change, ocean acidification and marine pollution;
- (d) Support food security and other socioeconomic objectives, including the protection of cultural values;
- (e) Support developing States Parties, in particular the least developed countries, landlocked developing countries, geographically disadvantaged States, small island developing States, coastal African States, archipelagic States and developing middle income countries, taking into account the special circumstances of small island developing States, through capacity-building and the development and transfer of marine technology in developing, implementing, monitoring, managing and enforcing area-based management tools, including marine protected areas.

*The United Nations General Assembly (UNGA) resolutions*

Several UNGA resolutions on deep water bottom trawling seek to prevent significant adverse impacts (SAIs) on VMEs. UNGA resolution 61/105 (2007) sets out the need to identify vulnerable marine ecosystems and protect them from significant adverse impacts. The resolution identifies VMEs as "including seamounts, hydrothermal vents and cold water corals". There is also a recognition of the degree of uncertainty in identifying VMEs so it includes where they "are known to occur or are likely to occur based on the best available scientific information" (83(3)(c)). UNGA resolution 64/72 (2009) (Article 119(b) and UNGA resolution 77/118 (2022) ( 213 (a) reiterated that recommendation.

These UNGA resolutions also call on States (i.e., RFMO members) and RFMOs, such as SIOFA, to:

- Close areas where VMEs are known or likely to occur;
- Not permit bottom fishing in such areas until measures are established to prevent SAIs;
- Conduct further marine scientific research, such as visual surveys e.g. by using cameras;
- Use the best scientific and technical information available to identify where VMEs are known to occur or are likely to occur, and to adopt measures to prevent SAIs on VMEs consistent with the Guidelines; or

- Close areas where VMEs occur or are likely to occur to bottom fishing until measures have been established to prevent SAIs.

## 1:3 Global Initiatives

Since SIOFA initiated this work, there have been several global initiatives of relevance to SIOFA's consideration of protecting its environment. These include:

### *Kunming – Montreal Global Biodiversity Framework*

The 2022 Conference of the Parties to the Convention on Biological Diversity (CBD) adopted decision 15/14 Global Biodiversity Framework, to halt and reverse biodiversity loss by 2030. The CBD currently defines a protected area as: “a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.” The protocol includes twenty-three 2030 targets and four longer-term global goals to preserve biodiversity for current and future generations. The targets include measures to reduce biodiversity loss, including in oceans, restore at least 30% of all degraded ecosystems, conserve 30% of marine areas, halt species extinction, and build resilience to the impacts of climate change.

### *Ecologically or Biologically Significant Areas (EBSAs)*

The 2008 Conference of the Parties to the Convention on Biological Diversity (CBD) adopted scientific criteria for the identification and development of Ecological or Biologically Significant Areas (EBSAs) ([decision IX/20](#)), defined as ecologically or biologically significant marine areas in need of protection

The SIOFA Convention includes a number of EBSAs, including Saya de Malha Bank, Walters Shoals, and Atlantis seamounts.

The Saya De Malha Bank has been recognised as an Ecologically and Biologically Significant Area (EBSA) by the Convention on Biodiversity. The area would also meet the criteria as VME under the FAO Deepwater Guidelines. Seagrass and rhodoliths beds found on the Saya De Malha Bank (Rogers 2021) are not included in the current definition of SIOFA VME taxon in the Annex 1 of CMM2020-01. Seagrasses support fisheries and biodiversity, clean the surrounding water and help take carbon dioxide out of the atmosphere and Rogers (2021) recommended their inclusion in VME indicator species. Saya De Malha would also meet the SIOFA criteria for protected area designation including as VMEs and biodiversity features.

### *BBNJ Agreement*

The BBNJ Agreement enables the establishment of marine protected areas on the high seas. Article 1(9) of the agreement sets out a definition of marine protected areas and Part III of the Agreement sets out the assessment and decision-making process and measures for establishing marine protected areas including in emergency situations, and the monitoring and review provisions. This includes provisions for engagement with RFMOs. Annex 1 of the Agreement sets out Indicative Criteria for Identification of Areas - this includes Uniqueness, Rarity, Vulnerability,

including climate change and ocean acidification, and fragility. Protection of VMEs could meet the criteria in Annex 1 of the Agreement for a marine protected area.

*IUCN IMMAs*

The IUCN has established Marine Mammal Protected Areas (IMMAs), defined as “discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation” and consisting “ of areas that may merit place-based protection and/or monitoring.”<sup>1</sup> The IUCN has approved several areas in the Indian Ocean, including waters surrounding the Mascarene Islands of Reunion and Mauritius as well as the underwater seamount of La Perouse and Saint-Brandon bank.

**Recommendation**

DSCC proposes that the Workshop:

- incorporates an additional principle to be considered in formulating recommendations for protected areas to ensure the consideration and integration of relevant global initiatives, including UNGA resolutions, the designation of protected area spaces within SIOFA by other bodies, and global commitments to improving the health of the ocean, and
- recommend that the SC develop a proposal for consideration by MoP on how to best integrate global initiatives related to marine area protection into their own work.

**2: STANDARD PROTOCOL CRITERIA**

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**2:1 Comparison of SIOFA Evaluation Criteria with IUCN and BBNJ Guidelines**

IUCN Guidelines	BBNJ Guidelines	SIOFA Protocol Criteria
Protect species outstanding natural feature and seascape	a) uniqueness b) rarity f) vulnerability g) sensitivity	VMEs  - known - Indicator species triggering
To protect natural ecosystems increase naturalness	a) uniqueness b) rarity l) naturalness	Bioregional representation

<sup>1</sup> <https://www.marinemammalhabitat.org/immas/>

		<ul style="list-style-type: none"> <li>- unique or rare habitats or ecosystems</li> <li>- high degree of naturalness</li> </ul>
<p>Protect biological features</p> <p>Protect and sustain important seascapes</p>		<p>Geographic or Geomorphological representation</p> <ul style="list-style-type: none"> <li>- important/desirable geographic representation</li> <li>- unique/unusual geomorphological features vulnerable to fishing</li> </ul>
<p>Biodiversity criteria include genetic, species and ecosystem level.</p> <p>viable populations in their natural surroundings</p> <p>Restore species and habitats</p>	<p>a) uniqueness</p> <p>b) rarity</p> <p>h) Sensitivity</p> <p>j) representativeness</p> <p>l) biological diversity and productivity</p> <p>r) slow recovery and resilience</p> <p>t) replication</p>	<p>Biodiversity representation</p> <ul style="list-style-type: none"> <li>- unique or rare species, populations or communities</li> <li>- high diversity</li> <li>- high genetic diversity</li> <li>- high level of sensitive habitats, biotops, species susceptible to degradation/depletion or slow recovery</li> </ul>
		<p>Scientific interest</p>
<p>Outstanding ecosystems</p> <p>Protection of particular species or habitat</p>	<p>(c) Special importance for the life history stages of species</p> <p>(d) Special importance of the species found therein</p> <p>e) The importance for threatened, endangered or declining species or habitats</p> <p>n) Important ecological processes occurring therein</p>	<p>Special significance for threatened or important species or ecosystem properties</p> <ul style="list-style-type: none"> <li>- of special importance for life history stages or for threatened species</li> <li>- habitat for survival and recovery of endangered/threatened/declining species</li> <li>- area with significant assemblages of endangered/threatened/declining species</li> </ul>

	f) Vulnerability, including to climate change and ocean acidification	
	k) Dependency	
Protect ecosystem services	m) Ecological connectivity	
Contribute to local economies through tourism	o) Economic and social factors	
Cultural values Traditional management approaches Conserve traditional spiritual and cultural values	p) Cultural factors;	
	q) Cumulative and transboundary impacts	
	s) Adequacy and viability;	
	u) Sustainability of reproduction	
Managed area	v) Existence of conservation and management measures.	
Long-term protection		
Clearly defined boundaries		

For the IUCN criteria DSCC has reviewed the MPA and Large Scale MPA criteria.

The IUCN criteria focus on the IUCN protected areas categories for marine protected areas (see Day et al 2019 and Lewis et al 2017). We have used the criteria applied in categories to list the criteria which would be relevant in



comparison to the SIOFA criteria. The BBNJ guidelines are from Annex I Indicative Criteria for identification of Areas of the BBNJ 2023 Agreement.

## Recommendation

- Incorporation of the following IUCN and BBNJ Annex I Criteria not yet included in the SIOFA Standard Protocol evaluation criteria:
  - vulnerability, including to climate change and ocean acidification
  - dependency
  - ecological connectivity and ecosystem services
  - economic and social factors
  - cultural and traditional spiritual values
  - cumulative and transboundary impacts
  - adequacy and viability
  - sustainability of reproduction
  - existence of conservation and management measures , and
  - long term protection
- The addition of areas to be set aside for the purposes of providing climate refugia, or areas that can provide a buffer for vulnerable species and ecosystems in a climate impacted region; ' and
- Areas identified as 'biodiversity hotspots'.

## 2:2 Recognition of seamounts as VMEs in criteria for evaluating protected area proposals

Seamounts, including knolls and hills, are vital deep-sea ecosystems that provide unique habitats and significantly contribute to marine biodiversity. The UN General Assembly resolutions from 2006 to 2022 have consistently emphasised the need to protect vulnerable marine ecosystems (VMEs), including seamounts, from significant adverse impacts (SAI). These features meet the criteria for classification as VMEs under the FAO Deep Sea Fisheries Guidelines, which consider criteria such as functional significance, fragility, slow recovery, and structural complexity. Scientific evidence as well as definitions from the UN General Assembly, FAO Guidelines, Regional Fisheries Management Organisations and individual States support this conclusion. There is strong scientific support for classifying seamounts as VMEs, since surveyed seamounts meet at least four of the five VME criteria without exception (Victorero, 2024). Visual studies have also repeatedly confirmed their capacity to sustain extensive VME communities. Consequently, the best available science supports a precautionary, ecosystem-based approach to protect seamounts. DSCC thus proposes that seamounts be recognised as VMEs and closed to bottom trawling.

## Recommendation

- Amend criteria concerning the consideration of VMEs for marine protection to formally recognise seamounts as VMEs.

## 2:3 Incorporating SIOFA's work relating to VME identification and location

SIOFA has undertaken significant work to progress its understanding of VME identification and location. The DSCC made several recommendations to further progress this work at the MoP11 and looks forward to the special session to progress this work at SC-10.

### Recommendation

Many of DSCC's recommendations are relevant to the further implementation of the Protocol, including:

- an increase in the level of precaution in determining the protection of vulnerable marine ecosystems (VMEs) in the light of projected climate change impacts and global initiatives, (and the full application of UNGA resolutions and consideration of relevant actions taken by other international fora;
- a consideration of MPAs for identified bioregions to meet 'bioregional representation' criterion listed in the Protocol;
- identification of tools to best identify biodiversity hotspots;
- a review of other potential indicator taxa be reviewed, including rhodoliths and seagrasses, to reflect the different depths and taxa that make up Saya De Malha Bank;
- the application of spatial closures as the primary mechanism to manage impacts on benthic habitats; and
- Establishment of a VME registry.

## 4: PROPOSALS FOR IMMEDIATE UPTAKE

- The DSCC supports immediate designation of protected status for the 12 benthic areas identified in WS2024-PAD-02, and proposes that all 12 features are closed to trawl fishing.
- The DSCC supports the review of Ecologically or Biologically Significant Areas (EBSAs) found fully or partly within SIOFA area for adoption as protected areas under the Protocol, including the Saya del Malha Bank, and proposes that such a review be incorporated into the SC 3-5 year workplan.

## 5: REFERENCES

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