

# OTHER EFFECTIVE AREA-BASED CONSERVATION MEASURES (OECMs) in the Arctic Marine Environment

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# Other Effective Area-based Conservation Measures (OECMs) in the Arctic Marine Environment

*Understanding international and national criteria used for identification of OECMs in the Arctic, including an overview of Indigenous Peoples' sustainable management practices and relevant case studies*

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## 1. Executive Summary

This report explores the concept of Other Effective Area-based Conservation Measures (OECMs) in the Arctic Marine Environment, highlighting the importance of recognizing conservation efforts other than protected areas to enhance biodiversity. Developed under the Protection of the Arctic Marine Environment (PAME) and Conservation of Arctic Flora and Fauna (CAFF) working groups of the Arctic Council, the report offers an overview of international and national criteria for identifying OECMs and acknowledges the importance of Indigenous sustainable management practices, which in some cases may be identified as OECMs.

The report highlights the evolving role of OECMs as part of the broader global biodiversity goals set by the Convention on Biological Diversity (CBD), emphasizing that OECMs can contribute to long-term biodiversity conservation and complement Marine Protected Areas (MPAs) by enhancing connectivity and representation. Various international organizations, such as the International Union for Conservation of Nature (IUCN) and the United Nations Food and Agriculture Organization (FAO), contribute to the guidance and integration of OECMs in global biodiversity strategies.

Arctic States and Indigenous Peoples' Organizations are at varying stages of identifying and defining OECMs. While some have established structured frameworks and engage actively with partners and stakeholders, others are still developing their approaches. The inclusion of Indigenous Knowledge is important for achieving effective, long-term conservation outcomes.

Through case studies, this report illustrates practices from different regions, showcasing diverse approaches to conservation in the Arctic. It concludes by advocating for collaborative efforts and the pivotal role of the Arctic Council in supporting OECMs in the region. Emphasizing inclusive, cooperative strategies between Arctic States and Indigenous Peoples, the report underscores the potential of OECMs to advance global conservation objectives and promote sustainable development across the Arctic marine environment.

## 2. Introduction

### 2.1 Background

Other Effective Area-based Conservation Measures (OECMs) are a relatively recent concept in conservation, introduced by the Convention on Biological Diversity (CBD) to complement Protected Areas (PAs). The goal is to recognize and promote area-based conservation efforts that occur outside of traditional protected areas but still contribute significantly to biodiversity conservation.

In 2010, the CBD Conference of the Parties (COP 10) adopted twenty [Aichi Biodiversity Targets](#). Aichi Biodiversity Target 11 called for protected area networks, including OECMs, to conserve 10% of coastal and marine areas by 2020. Target 11 was able to demonstrate progress in protection efforts although the estimated 7.74% of coastal and marine areas protected still fell short of the global target (UNEP-WCMC and IUCN 2021).

The CBD has been instrumental in formalizing OECMs through [Decision 14/8 \(2018\)](#) (Box 1) on protected areas and OECMs. This decision establishes the definition of OECMs, and outlines criteria for recognizing and reporting them, and emphasizes the importance of management practices that deliver long-term biodiversity conservation outcomes.

#### Box 1. OECM Definition

"A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services, and where applicable, cultural, spiritual, socio-economic, and other locally relevant values."

In 2022, the CBD COP 15 emphasized the importance of OECMs as part of the broader discussions on biodiversity conservation and adopted a new global biodiversity framework for the post-2020 period, the [Kunming-Montreal Global Biodiversity Framework](#) (GBF). The GBF sets out a series of ambitious targets aimed at halting and reversing biodiversity loss by 2030. These targets encompass a wide range of biodiversity conservation and sustainable use objectives, of which Target 3 includes and emphasizes the role of OECMs in achieving global biodiversity conservation goals.

The recognition and promotion of OECMs have been supported by various international organizations, each contributing to the understanding, implementation, and integration of OECMs within global biodiversity conservation frameworks and strategies (Table 1). The CBD is the main international treaty that has formalized the concept of OECMs and has emphasized their importance in the GBF. The CBD provides the overarching framework and guidelines for the identification, recognition, and reporting of OECMs.

The United Nations Food and Agriculture Organization (FAO) plays a significant role in promoting OECMs by integrating sustainable fisheries practices into biodiversity conservation strategies. A handbook for identifying, evaluating and reporting OECMs in marine fisheries has been developed (Table 1). The International Maritime Organization (IMO) designates Particularly Sensitive Sea Areas (PSSAs), which provide special protection to ecologically, socio-economically, or scientifically significant marine areas. By implementing specific protective measures like vessel routing restrictions and pollution control, PSSAs align with several OECM criteria for designation/recognition and enhance marine biodiversity conservation. Together, these organizations facilitate the integration of OECMs into global conservation efforts supported additionally by various United Nations Sustainable Development Goals (SDGs) that emphasize biodiversity conservation, sustainable resource management, and inclusive practices.

The International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) support OECMs by developing guidelines and aiding in the inclusion of OECMs in global reporting through the World Database on OECMs ([WD-OECM](#)). Alongside the World Database on Protected Areas (WDPA), this database provides the headline indicator of progress against GBF Target 3.

**Table 1.** OECM International Guidance - Summary Table

Guidance	Published by	Overview
IUCN Recognizing and reporting other effective area-based conservation measures (2019)	IUCN World Commission on Protected Areas	Provides definitions and characteristics, a basic screening tool for identifying OECMs (including example areas likely/unlikely to meet the OECM definition), and information on monitoring and reporting of OECMs. Includes a decision tool to assess whether Aichi Target 11 is the appropriate target to evaluate a conservation measure.
Site Level Methodology for Identifying OECMs (2023)	IUCN World Commission on Protected Areas	Provides more detailed decision-support tools to assess whether an area meets 4 primary criteria and 10 sub-criteria for OECMs.
OECMs in Marine Capture Fisheries: Systematic approach to identification,	IUCN Fisheries Expert Group (FEG)	Describes the OECM criteria and principles within a fisheries context, including OECM relationship to area-based fisheries

use and performance assessment (2021)		management. Proposes a fisheries governance framework for OECMs.
International Council for the Exploration of the Seas (ICES)/IUCN Commission of Ecosystem Management (CEM) FEG Workshop on Testing OECM Practices and Strategies (2021)	ICES and IUCN FEG	Applies the guidance developed by IUCN's FEG to six case studies in Canada, the UK and the high seas.
Handbook for identifying, evaluating and reporting OECMs in marine fisheries (2022)	FAO	Provides practical guidance to support stakeholders in assessing potential OECM candidates in the marine fisheries sector against the OECM criteria in both national and multilateral contexts.
OECMs: Investigating alternative marine protection measures	HELCOM	Workshop report to help develop a common understanding of the applicability of the OECM criteria to the specific situation in the Baltic Sea.

## 2.2 Report Synopsis

The use of OECMs as a conservation tool is an emerging practice globally, with significant implications and benefits for the Arctic region. Furthermore, Indigenous-led conservation, including Indigenous Protected and Conserved Areas (IPCAs), has emerged globally as important to the protection and conservation of biodiversity. IPCAs can encompass a range of different approaches toward, and tools for, long-term conservation. Working in a spirit of collaboration and mutual respect will help determine how OECMs intersect with IPCAs.

The international discourse and advancement of OECMs as a tool for conservation of global biodiversity has evolved significantly in recent years. Existing guidance on OECMs provides a list of criteria that can be applied to specific places under area-based management to recognize their contribution to long term, in situ conservation of biodiversity. OECMs can contribute to biodiversity conservation by: 1) recognizing and tracking contributions of area-based management; 2) providing an incentive to sectoral and other management entities to enhance their management for conservation outcomes; 3) complementing protected areas as part of a conservation network, thereby enhancing network attributes such as representativity and connectivity; and 4) providing monitoring and evaluation of area-based management to inform adaptive management of these places, and of the overall conservation network. Accordingly, there are currently opportunities for the Arctic Council to consider how OECMs, as well as other applicable sustainable management practices identified by Indigenous Peoples throughout the circumpolar Arctic (such as IPCAs), can contribute to functional and effective conservation networks in the Arctic and post-2020 CBD GBF biodiversity targets.

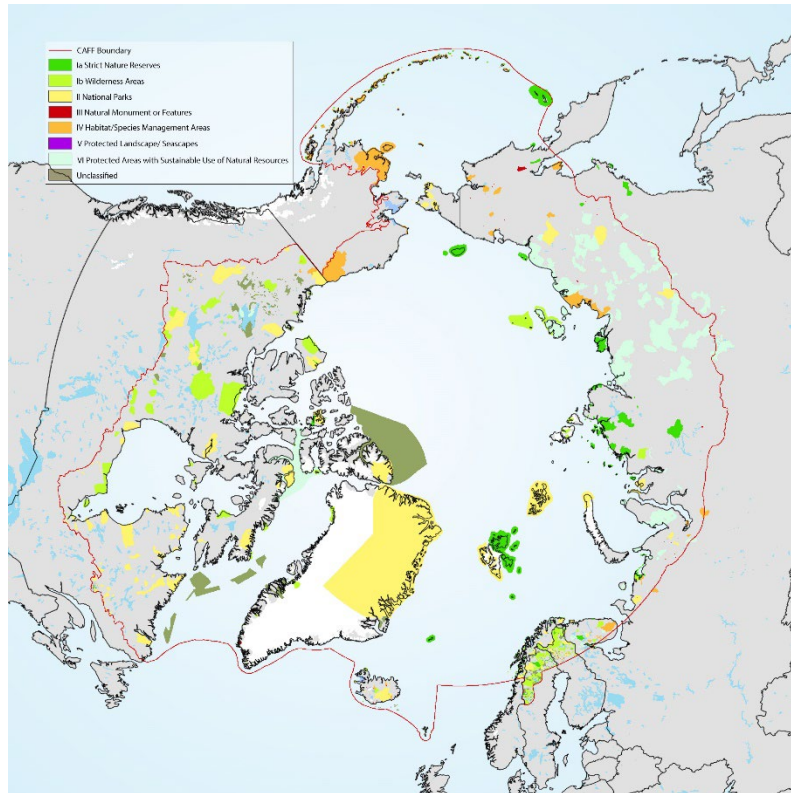
This report provides an overview of the current range and understanding of international and national work on OECMs, seeks to share information on how Arctic States are interpreting and applying the OECM definition and criteria within their national jurisdictions and explores Indigenous sustainable management practices, including IPCAs, that may contribute to Arctic marine stewardship.

The aim of this work is to explore opportunities for OECMs as an additional tool for effective conservation of biodiversity and associated values in the Arctic; contribute to a common understanding and use of terminology related to OECMs and other non-PA approaches to Arctic marine management; and to inform other Arctic Council efforts to support area-based management, and serve as a reference source on OECMs to the updated Framework for a Pan-Arctic Conservation Network (MPA) report.

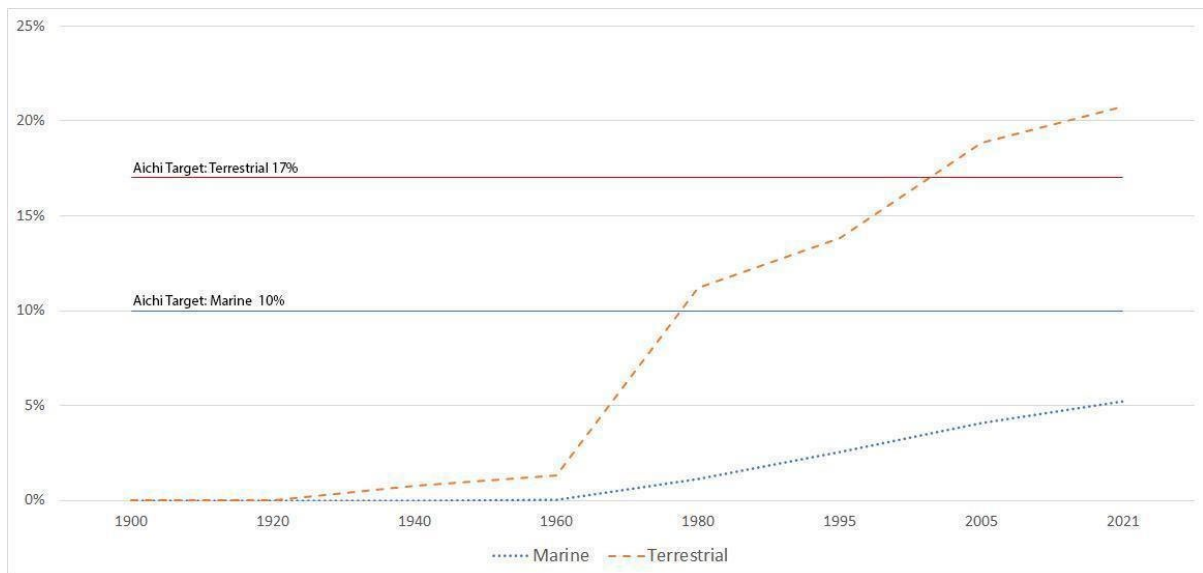
The Conservation of Arctic Flora and Fauna (CAFF) and Protection of the Arctic Marine Environment (PAME) Working Groups of the Arctic Council have addressed the topic of marine protected areas (MPAs) through a range of activities over the years, such as:

- The 2025 PAME Framework for a Pan-Arctic Conservation Network (MPAs) which sets out a common vision for international cooperation in the development and management of a conservation network in the Arctic (updated from the 2015 MPA Framework).
- The 2017 PAME MPA-network Toolbox for Area Based Measures and Ecological Connectivity which further developed guidance to assist Arctic States in advancing their MPA networks by providing theory and tools that can be used to assess and protect biodiversity.
- The 2017 CAFF/PAME Arctic Protected Areas - Indicator report and the 2022 CAFF/PAME Status and Trends in Arctic Conservation Measures report (published in 2024) which highlight the status and trends of terrestrial and marine protected and conserved areas.

According to the 2022 CAFF/PAME Status and Trends in Arctic Conservation Measures report, the extent of protected areas in the Arctic's marine environment was more than 5% of the total Arctic marine area (935,778 km<sup>2</sup>) in 2021 (Figure 1). However, when considered at a pan-Arctic scale, this did not reach the Aichi Biodiversity Target 11 goal of 10% of coastal and marine areas to be protected by 2020 through a network of protected areas and OECMs (Figure 2) and was below the global average of 7.74%. MPA coverage in the Arctic is dominated by several very large areas and, therefore, parts of the Arctic marine ecosystem lacked MPA and OECM coverage in 2020.



**Figure 1.** Protected and conserved areas in the Arctic classified by their IUCN Protected Areas Management Category, 2021. The category *unclassified* identifies either protected areas that have not been formally assigned to an IUCN Protected Areas Management Category, or OECMs that are not subject to IUCN Protected Areas Management Categories.



**Figure 2.** Trend in marine protected area coverage within the CAFF boundary, 1900-2021. (CAFF/ PAME 2024)

In April 2024, a Nordic workshop on OECMs was hosted in Tromsø, Norway, bringing together experts with a variety of backgrounds in marine conservation. Workshop participants discussed key concepts related to OECMs and Indigenous-led conservation practices and measures, including how

OECMs can contribute to reaching global and national conservation targets, and the broader benefits of OECMs for conservation in the Nordic and wider Arctic regions. The workshop informed the development of this report by providing case studies to draw from, including from Indigenous perspectives, and lessons learned within national and regional settings.

### 3. OECM definition, criteria and guidance

The CBD has formalized the concept of OECMs (Box 1 – OECM Definition and Section 2.1 below) and outlined criteria for recognizing and reporting OECMs. The criteria for recognizing OECMs include clear geographic boundaries, effective governance and management practices, and demonstrable conservation results. Guidance for identifying and reporting OECMs is provided by a variety of international organizations, e.g. FAO and CBD, with guidance emphasizing the diverse governance types and management approaches suitable for OECMs. International organizations such as IUCN also provide frameworks and support for the identification, reporting, and integration of OECMs into global and national biodiversity strategies, enhancing their role alongside protected areas in global conservation efforts. UNEP-WCMC maintains the World Database on OECMs. The existing data and guidance on reporting can be accessed on the Protected Planet website.

#### 3.1 OECM Definition

In 2018, the CBD COP 14 adopted the definition of OECMs (Box 1), providing key elements for their identification and use across all ecosystems, including the marine environment.

The OECM definition builds upon the CBD's definition of a protected area, which is described as: *An area with clear boundaries that is set up or controlled and managed to reach specific conservation goals* (CBD article 2, CBD 1992). By recognizing more types of conservation areas, encouraging diverse and inclusive governance, supporting sustainable use, and improving the reporting and monitoring of conservation actions, OECMs complement protected areas within conservation networks, supporting the CBD's main objective of protecting biological diversity, while also ensuring sustainable use and equitable sharing of benefits.

This CBD OECM definition also complements the IUCN definition of a protected area, which is defined as: *A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values* (IUCN 2008).

Protected areas are explicitly managed with the primary goal of nature conservation (IUCN 2008), whereas OECMs may have multiple objectives, not necessarily nature conservation, such as sustainable resource use or cultural preservation, but still achieve effective biodiversity conservation (IUCN-WCPA 2019). Both OECMs and protected areas emphasize effective governance, sustainable management, and the maintenance of ecosystem services and cultural values, but OECMs uniquely acknowledge and incorporate a wider array of management objectives and practices (IUCN-WCPA 2019, Jonas 2024). Both protected area and OECM concepts value conserving biodiversity, maintaining ecosystem services, and involving diverse governance types, including Indigenous-led practices.

Protected areas and OECMs are both expected to result in the long-term conservation of biodiversity. Recognizing OECMs acknowledges the critical role that diverse management practices play in global biodiversity conservation, thus fostering more inclusive and effective conservation networks. Recognizing OECMs also leads to a more complete picture of global area-based conservation efforts, which helps improve the assessments of the steps needed to halt and reverse the biodiversity crisis.

### 3.2 OECM Criteria

The criteria for identifying OECMs are provided in [Annex III-B of CBD Decision 14/8](#). The Decision provides four criteria (A-D) (Box 2) and ten sub-criteria to be used for identification and recognition of OECMs, each adding important details about the role of OECMs in biodiversity conservation across ecosystems, and how to apply the principles in a flexible way and on a case-by-case basis.

To qualify as an OECM, the management measures implemented within an area are to demonstrate a significant contribution to biodiversity benefits and ecosystem services, and to complement existing or planned MPA Networks through improved connectivity and/ or representativeness. OECM identification, governance and management by authorities should aim to be transparent, knowledge-based, effective, and equitable, recognizing and affirming Indigenous Peoples' rights and values, as well as other locally relevant values. The performance of OECMs against the criteria could be re-examined at intervals long enough that potential changes in the biodiversity features could be expected to be detected if present.

#### Box 2. OECM: Overview of criteria for identification

CBD Decision 14/8, which defines an OECM (Box 1) also provides in its Annex III, four criteria (Annex III subsection B) and ten sub-criteria to be used for the first identification of OECMs, and when performance re-assessments of identified OECMs are considered necessary. Under each sub-criteria a number of guidelines are provided. These guidelines are further elaborated and considered in follow up processes under IUCN, FAO and others (see chapter 3). The criteria and sub criteria are:

- 1) Area is not currently recognized as a protected area.
  - a) Not a protected area
- 2) Area is governed and managed.
  - a) Geographically defined space
  - b) Legitimate governance authorities
  - c) Managed
- 3) Achieves sustained and effective contribution to *in situ* conservation of biodiversity.
  - a) Effective
  - b) Sustained over long term
  - c) *In situ* conservation of biological diversity
  - d) Information and Monitoring
- 4) Associated ecosystem functions and services and cultural, spiritual, socio-economic and other locally relevant values.
  - a) Ecosystem function and services
  - b) Cultural spiritual, socioeconomic and other locally relevant values

### 3.3 Overview of guidance provided by CBD, IUCN, FAO, and other relevant organizations

The CBD Decision 14/8, "Protected Areas and Other Effective Conservation Measures" and its content apply to all ecosystems, terrestrial and marine, under a range of governance systems. While this decision provides overarching criteria for OECMs, it includes guidance relevant to marine and coastal areas that achieve long-term biodiversity conservation. This Decision invites IUCN, UNEP-WCMC, the FAO, and other expert bodies to continue to assist in identifying OECMs and in applying the relevant scientific and technical advice. Furthermore, the decision urges Parties to facilitate mainstreaming of protected areas and OECMs into key sectors, such as, *inter alia*, agriculture, fisheries, forestry, mining, energy, tourism and transportation (CBD/COP/DEC/14/18). The IUCN World Commission on Protected Areas (WCPA) has prepared guidelines on OECMs to assist Parties in operationalizing Decision 14/8 (IUCN WCPA, 2019). These guidelines are designed to be used

throughout the OECM identification process, from assessing whether an individual area meets the OECM criteria and sub-criteria, to recognizing new OECMs and reporting OECM statistics at national and global levels to assess progress on the achievement of conservation targets.

As mentioned above, unlike protected areas, OECMs do not require a primary objective of conservation. However, there must be a direct causal link between the area's overall objective and management and the in situ conservation of biodiversity over the long-term. "Managed" can include a deliberate decision to leave the area untouched. IUCN (2019) distinguishes between three types of approaches that OECMs may take:

- Primary conservation refers to areas that may meet all elements of the definition of a protected area, but which are not officially designated as such because the governance authority does not want the area to be recognized or reported as a protected area.
- Secondary conservation, which is achieved through the active management of an area where biodiversity outcomes are a secondary management objective. For example, enduring watershed protection policies and management may result in effective protection of biodiversity in watersheds, even though the areas may be managed primarily for objectives other than conservation (e.g. water quality and quantity).
- Ancillary conservation refers to areas that deliver in situ conservation as a by-product of management activities, even though biodiversity conservation is not a management objective. For example, heritage or military sites that protect shipwrecks or war graves, and thus limit human disturbance, can lead to ancillary conservation of important biodiversity.

According to IUCN (2019), management of OECMs should be consistent with the ecosystem approach, with the ability to adapt management to achieve expected long-term biodiversity conservation outcomes and to manage emerging new threats (<https://www.cbd.int/ecosystem/>). Accordingly, the management of OECMs should include "effective means" of control of activities that could impact biodiversity. To the extent relevant and possible, management should be integrated across OECMs and with surrounding areas. According to IUCN (2019), an area where there is no management regime is not an OECM, even though its biodiversity may remain intact, including unmanaged areas of the high seas.

For the fishery sector, IUCN's Fisheries Expert Group (FEG), in collaboration with the CBD and FAO Secretariats, developed specific guidance for OECM identification and management (Garcia et al. 2020, Garcia et al. 2019, Rice et al. 2018, FAO 2019). The International Council for the Exploration of the Seas (ICES) held a workshop to review, test and further develop the IUCN-FEG's suggested stepwise process for mainstreaming the CBD 14/8 decision into guidance on identifying OECMs in the marine fisheries sector (Kenchington et al. 2021). This workshop included six case studies on how to use the provided guidelines and offered opportunities to reflect on descriptions of possible implications for OECM performance evaluation.

The above-mentioned processes suggest and guide how, in practice, CBD Decision 14/8 could be implemented, in a systematic way, in the marine fisheries sector. It describes information needed for the identification, use and performance assessment of OECMs in the sector, including thoughts about the various requirements contained in the principles, criteria and voluntary guidance of the CBD, from a marine fisheries perspective. It also reflects upon the fact that similar processes, already used in fisheries for Area-Based Fisheries Management Measures (ABFMs), may need to be adapted, or complemented, to align properly with OECMs (ICES 2021).

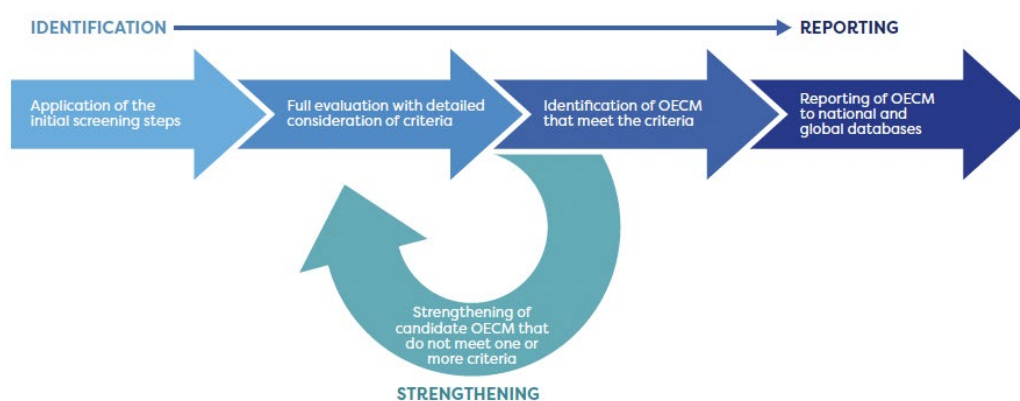
The guidance covers:

1. The enabling frameworks needed for the OECM implementation process to develop smoothly in fisheries;
2. A description of the OECM implementation process;

3. The knowledge-based identification phase;
4. The integration of OECMs into the Fisheries Management Plans;
5. The monitoring, evaluation, and recurrent reporting of their performance; and
6. The potential revision of OECMs in case of insufficient performance.

FAO's [Handbook for identifying, evaluating and reporting OECMs in marine fisheries \(2022\)](#) builds on FAO fisheries guidance as well as its experiences and lessons learned from workshops and discussions in various regions across the globe. This document outlines common considerations for applying the OECM criteria and related principles in the context of fisheries management, providing a basis for identifying, evaluating and reporting fisheries OECMs. It also acknowledges that these criteria are context-specific, and that their interpretation of the criteria will reflect each individual country's approach to fisheries management.

A simplified diagram of the identification process of fisheries OECMs (Figure 3) begins with initial screening, in order to create a list of candidate areas, followed by a full evaluation, identification and reporting. This also illustrates how candidate areas that do not meet OECM criteria can be flagged for management enhancements. IUCN guidance (2024) notes that measures should have the ability to manage existing pressures and respond to new threats. Therefore, OECMs associated with a particular sector, such as fisheries, should have the capacity to address non-fisheries threats to biodiversity, which often requires cross-sectoral and interagency coordination.



**Figure 3.** Main steps for one type of OECM identification process based on the FAO OECM Handbook.

Recent decisions from the CBD COP 15 and 16, and supporting guidance from IUCN, FAO, and other relevant organizations, emphasize the importance of adaptive management in OECMs to address new and emerging threats, including climate change and biodiversity loss. The decisions highlight the need for the integration of OECMs into broader landscape and seascape management frameworks to enhance connectivity and resilience. CBD decisions have also focused on improving monitoring and reporting mechanisms to ensure that OECMs contribute effectively to global biodiversity targets. The CBD encouraged Parties to strengthen engagement with stakeholders and rightsholders, particularly with both Indigenous Peoples, as well as local communities, to ensure equitable governance and management of OECMs.

Internationally, the IUCN and FAO have also updated their guidelines to reflect these new priorities. The IUCN's 2024 guidelines now include specific strategies for addressing climate resilience and integrating OECMs with other conservation measures to create more cohesive and comprehensive conservation networks. FAO has similarly updated its fisheries guidelines to emphasize the role of OECMs in supporting sustainable fisheries and protecting marine biodiversity in the face of climate change and other environmental pressures.

The following examples (Box 3) illustrate the diverse management approaches and governance structures that may contribute to the conservation of marine biodiversity if they meet the OECM criteria. As noted above, OECMs should have the ability to manage existing pressures and respond to new threats, so OECMs associated with a particular sector should have the capacity to address all significant threats to biodiversity, which often requires cross-sectoral and interagency coordination.

**Box 3.** Area-based management approaches contributing to the conservation of marine biodiversity

The following examples illustrate the diverse management approaches and governance structures that may contribute to the conservation of marine biodiversity.

- IPCAs: Marine areas managed by Indigenous Peoples using Indigenous Knowledge.
- Sustainable Fisheries Management Zones: Areas where fishing practices are regulated to ensure sustainable fish stocks and protect marine habitats.
- Marine Mammal Protection Areas: Zones designated to protect critical habitats for marine mammals.
- No-take Zones: Areas where all forms of extractive activities, such as fishing and mining, are prohibited to allow ecosystems to recover.
- Marine Research and Monitoring Areas: Areas designated for scientific research and monitoring, contributing to conservation through data collection and ecosystem studies.
- Shipping Route Management Zones: Areas where shipping routes are managed to minimize environmental impact and protect sensitive marine areas.
- Pollution Control Areas: Zones where measures are implemented to reduce pollution from land-based sources, shipping, and other activities.
- Protected Seabed Areas: Zones where activities that disturb the seabed, such as trawling and mining, are restricted or prohibited.
- Conservation Areas within Offshore Energy Zones: Areas within offshore energy development zones where specific conservation measures are implemented to mitigate impacts.

## 4. Arctic States approaches to identifying marine OECMs

Arctic States are at varying stages of identifying and recognizing marine OECMs. Some have made significant progress through the development of structured frameworks and are actively engaging and consulting with stakeholders, Indigenous Peoples and communities, while others are still developing their respective approaches, focusing on the integration of OECMs into existing regulatory measures and addressing sector-specific challenges. Collaboration, adaptive management, and the inclusion of Indigenous Knowledge are common themes across all efforts, reflecting a commitment to achieving sustained biodiversity conservation in the Arctic marine environment.

### 4.1 Canada's approach to identifying and recognizing marine OECMs

#### *History*

In 2016, to advance Canada's progress toward meeting domestic and international 10% marine conservation targets, the Canadian Science Advisory Secretariat (CSAS) provided [science advice](#) on a suite of characteristics that could be used to determine which marine area-based measures would likely provide biodiversity conservation benefits (BCBs), thereby allowing them to be recognized as marine other effective area-based conservation measures (OECMs). Fisheries and Oceans Canada (DFO) followed the CSAS science advice in developing its 2016 [Operational Guidance for Identifying OECMs in Canada's Marine Environment](#). This interim Guidance was used to identify OECMs from an inventory of more than 1,000 fisheries-area closures. Approximately 30 of these existing closures were recognized as OECMs under the interim Guidance by the Minister of Fisheries, Oceans and the Canadian Coast Guard.

Following the adoption of *Decision 14/8* by CBD Parties, the Government of Canada published [2022 Marine OECM Guidance](#) which replaces its interim OECM guidance by interpreting CBD concepts in a Canadian context within a science-based, operational policy framework. The framework includes guiding principles and assessment criteria for recognizing marine OECMs in Canada. This Guidance must be applied to all marine OECMs recognized by federal departments or agencies. All criteria outlined in the Guidance must be met for a candidate OECM to be recognized and to contribute to meeting marine conservation targets.

Additional fisheries area closures have been established and recognized as OECMs, over time, comprising roughly 4.25% of Canada's marine and coastal areas as of January 2025.

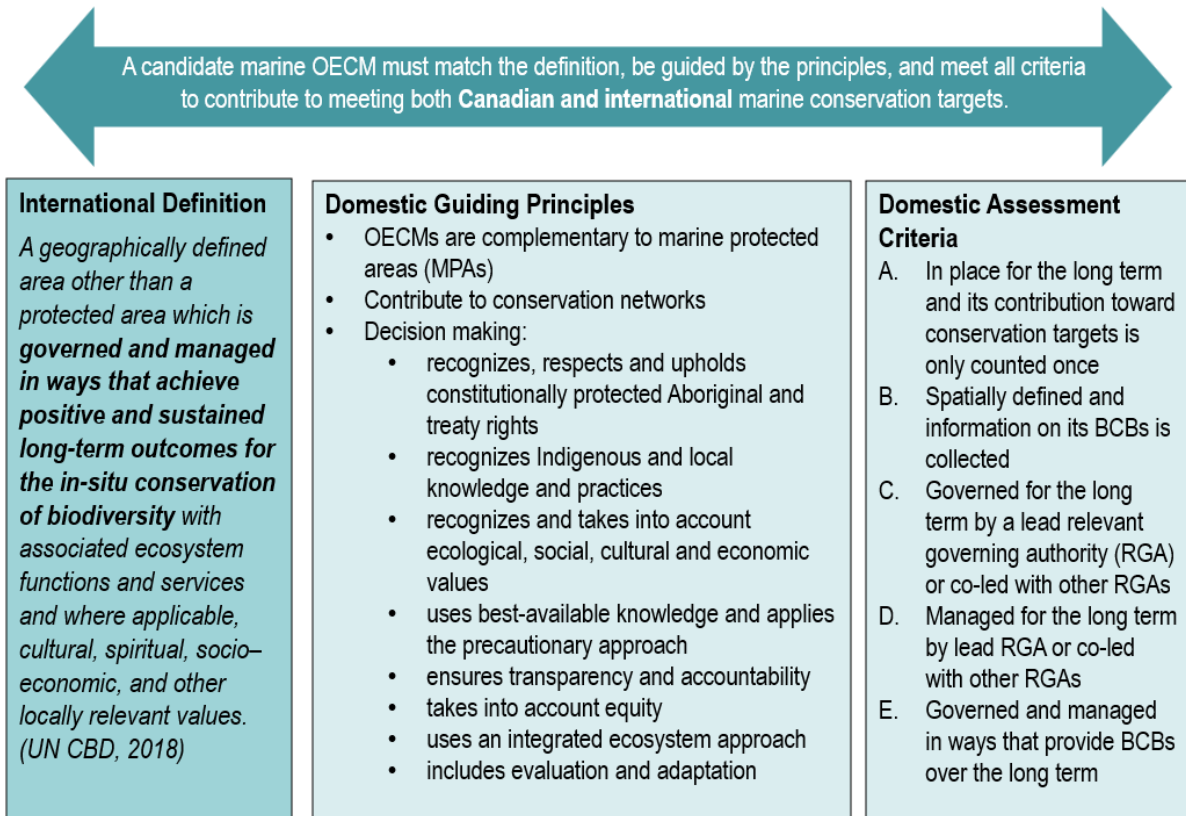
#### *OECM Recognition*

The 2022 Marine OECM Guidance contains ten principles that reflect various elements of the 2018 CBD voluntary guidance that are more abstract and do not directly translate into measurable criteria. These principles are meant to guide practitioners when recognizing marine OECMs and help promote national consistency. In addition, the Guidance contains five criteria that are mandatory requirements for any federal area-based measure receiving OECM recognition.

DFO applies the criteria, guiding principles, and the CBD's OECM definition together so that OECMs contribute to the *in situ* conservation of biodiversity. As such, every OECM recognized by federal authorities in Canada must match the CBD's OECM definition, be guided by the ten principles, and meet all five assessment criteria to contribute to meeting Canadian and international marine conservation targets (Figure 4).

All criteria work together to ensure that OECMs are governed and managed for the long term, in ways that address risks from existing or foreseeable activities to the area's BCBs. Marine OECMs therefore provide a net positive benefit to biodiversity. The criteria also implement the Government's 2019 OECM Protection Standard, which requires that existing or foreseeable activities

in federal marine OECMs be assessed on a case-by-case basis to ensure that the risks they may pose to the BCBs are avoided or mitigated effectively.



**Figure 4.** Summary of the requirements for OECM recognition in Canada. For more information on the Guiding Principles refer to Section 5.1 of the Government of Canada marine OECM Guidance; For more information on the Assessment Criteria refer to section 5.2 of the Government of Canada marine OECM Guidance.

**Indigenous Considerations in Canada**

In Canada, OECMs must recognize, and respect constitutionally protected Aboriginal and treaty rights. OECMs may provide opportunities for meeting Indigenous Peoples’, governments’, or organizations’ objectives and aspirations, and respect areas with spiritual, cultural, or historical importance. OECM processes provide equitable opportunities for participation by relevant governing authorities (RGAs), rights holders, and stakeholders.

An Indigenous government may be a lead RGA where it holds the jurisdiction, as set out in treaties and/ or self-government agreements and has the authority to make laws and enforce decisions about what activities may occur and how they occur in an OECM. An Indigenous RGA meeting these requirements may lead or co-lead an OECM with another RGA. Indigenous governments may also participate in an OECM’s governance and management system which another RGA is leading. These arrangements may be designed on a case-by-case basis to support participation in OECM processes.

In addition, the federal government could support the conservation of areas and resources that are culturally important to Indigenous Peoples through recognized OECMs. This federal support could be provided in a variety of ways, including as the lead RGA, through partnership with Indigenous governments in the OECM governance, or in collaboration with Indigenous communities in OECM management.

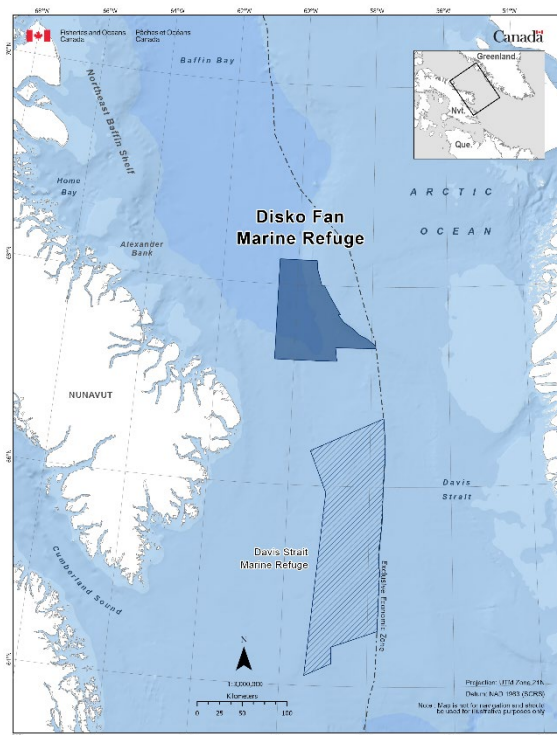
Complementary perspectives strengthen OECM recognition, management, and governance. Indigenous Knowledge offers important insights and perspectives on the OECM’s BCBs and ways to address risks to them. Although there is no universal definition for Indigenous Knowledge,

information gathered from Knowledge-holders can be woven with Western and other knowledge systems. How Indigenous Knowledge is offered or obtained, and its composition, use, storage and application should be determined by Indigenous Peoples themselves. Indigenous Knowledge shared to support OECM decision-making should be conveyed in its original form to protect its integrity.

### **Case Study: Disko Fan Marine Refuge**

In Canada's Arctic Region, three fisheries area closures (Disko Fan, Davis Strait and Hatton Basin) have been established and recognized as marine OECMs (also known as marine refuges), contributing 1.17% to Canada's Marine Conservation Targets. Prohibited activities, such as bottom-contact fishing, are in place to protect the diverse populations of marine species that exist within these geographic areas. Specific details about the Disko Fan Marine Refuge are included below. [Watch](#) to learn more about the Arctic's marine refuges and what they protect.

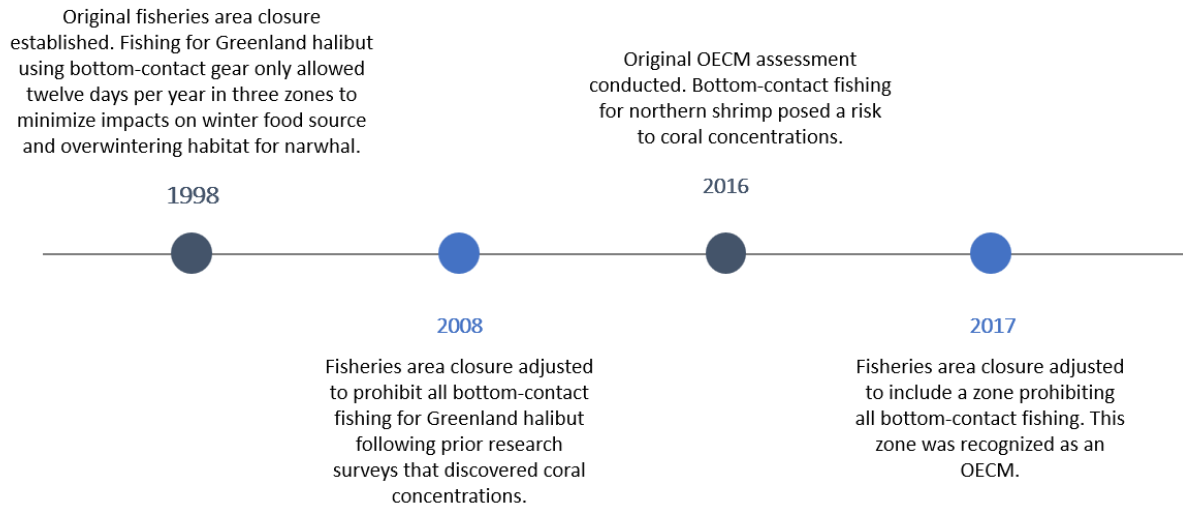
Disko Fan Marine Refuge is located off the coast of Nunavut, Canada in the Eastern Arctic Bioregion (Figure 5). The area was established as a restricted fishing zone in 1998 under Canada's *Fisheries Act*. The closure was designed to minimize impacts on the winter food source and overwintering habitat for narwhal by only permitting the three vessels using the area to fish for Greenland halibut for up to twelve days per year in three different zones. In 1999 and again in 2001 deep sea coral species were identified in the area, which along with narwhal entanglement concerns, led DFO to prohibit all Greenland halibut fishing using bottom contact gear in the Disko Fan Marine Refuge in 2008.



**Figure 5.** Map of Disko Fan Marine Refuge (portion closed to all bottom-contact fishing). (Source: Government of Canada<sup>1</sup>)

<sup>1</sup> The eastern edge of the Disko Fan Marine Refuge is in the Labrador Sea. Canada has a maritime boundary dispute with Denmark in that area. The limits of Canada's maritime zones in this area with the Kingdom of Denmark are not yet settled. Canada and Denmark announced on November 28, 2012, that a tentative agreement on the Labrador Sea boundary had been reached. The next step is to develop treaty text for ratification. Once the maritime boundary is finalized, this portion of the OECM boundary may need to be reviewed to reflect the coordinates in the treaty.

The fisheries area closure was first considered for OECM recognition in 2016. However, it was determined through a risk assessment that the use of bottom-contact fishing gear for northern shrimp posed a risk to coral concentrations located at shallower depths. Inuit partners and organizations as well as stakeholders were engaged and consulted, which led to adjustments to the fisheries area closure to include a zone prohibiting all bottom-contact fishing gear. This collaboration resulted in a zone that was recognized by the Minister of Fisheries, Oceans and the Canadian Coast Guard (the Minister) as an OECM in 2017 (Figure 6).



**Figure 6.** Disko Fan Marine Refuge summary timeline.

The Disko Fan Marine Refuge supports long-term conservation of narwhal overwintering habitat and their winter food sources over the long term, while also conserving globally unique, high-density bamboo coral forests. Additional benefits include promoting habitat complexity and the structural integrity of long-lived species (corals) and other species dependent upon this habitat. Conservation of these sensitive benthic areas also supports identified species at risk in the region (e.g., wolffish) as well as commercially important species (e.g., Greenland halibut and northern shrimp) and marine mammals that use the structural habitat for various life stages (e.g., narwhal). By minimizing the impacts of bottom-contact gear types on narwhal overwintering habitat and food, the Disko Fan Marine Refuge aims to support narwhal populations, a culturally important species to Inuit. Inuit communities and organizations rely on Baffin Bay narwhal for subsistence harvest.

While determining the final area chosen for protection, DFO sought input from Indigenous partners, including Inuit business coalitions, Inuit wildlife management boards, Inuit government and regional Inuit associations, the groundfish and shrimp fishing industries, provincial and territorial governments and environmental organizations. Throughout these consultations, Inuit Knowledge and fisher knowledge was sought. The Disko Fan Marine Refuge provides ecosystem services by supporting the Greenland halibut and northern shrimp populations. Fishing for these species provides employment and royalty payments for several Nunavut communities.

Commercial marine fisheries in Baffin Bay are managed consistent with the *Nunavut Agreement*. This Agreement between the Government of Canada and Inuit in Canada's central and eastern Arctic sets out a framework for wildlife and resource management within and outside the Nunavut Settlement Area (NSA). Disko Fan Marine Refuge is outside though adjacent to the NSA land claim area. The Nunavut Wildlife Management Board (NWMB) provides fisheries management decisions (inside the NSA) and recommendations (outside the NSA) to the Minister. NWMB decisions/recommendations, as accepted by the Minister, are incorporated into relevant Integrated Fisheries Management Plans (IFMPs). In addition, a Steering Committee made up of partners

appointed by Inuit governing organizations, the Government of Nunavut and the NWMB, shares information, guides the development of conservation plans and provides recommendations (Figure 7).

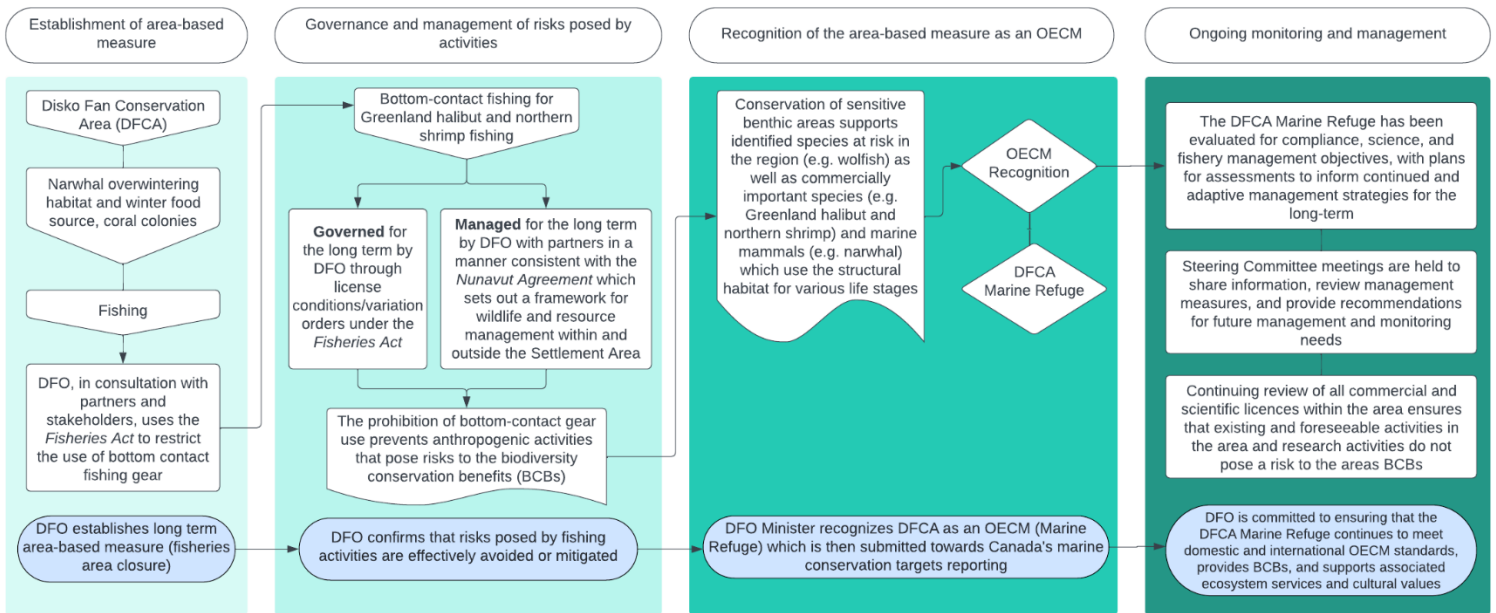


Figure 7. Key OECM concepts and processes summary for the Disko Fan Marine Refuge.

#### 4.2 Kingdom of Denmark status and approach to identification of OECMs in Greenland

In 2021 Naalakkersuisut (the Government of Greenland) published a national strategy for biodiversity that sets out a framework for sustainable management and protection of biodiversity as well as natural resources until 2030. It includes goals and objectives related to protected areas, OECMs and ecosystem-based management, amongst others. The strategy also outlines that Greenland aims to implement relevant international conventions and agreements within national legislation and national administrative systems.

Greenland has in the past decade made considerable effort to identify ecologically valuable and sensitive marine and coastal areas. Through Strategic Environmental Impact Assessments (SEIAs) related to mineral activities (including Boertmann et al. 2020, Boertmann et al. 2020, Merkel et al. 2021, Frederiksen et al. 2012, Boertmann et al. 2017) key habitats, migration routes, and the population size and ecology of sensitive species and resources have been mapped. In addition, assessments focused on identifying important biodiversity areas, or hotspots, have been carried out. These assessments include internationally accepted criteria for identifying important areas, such as the Ecologically or Biologically Significant Marine Area (EBSA) criteria and the IMO criteria for Particular Sensitive Sea Areas (PSSA) (Christensen et al. 2012, Mosbech, Christensen & Falk in AMAP/CAFF/SDWG, 2013, Christensen et al. 2016, Christensen et al. 2017) as well as national criteria, including importance for ecosystem services.

Based on the collection of knowledge and a political will to protect biodiversity and sustainably manage natural resources, Naalakkersuisut has initiated screening work to assess how a wide array of managed areas in Greenland may qualify as OECMs according to CBD Decision 14/8. This work aims to form the first identification of potential Greenlandic OECMs. The screening will be finalized in 2025 and includes three types of managed areas that are already protected through legislation but are not categorized as MPAs. These areas include:

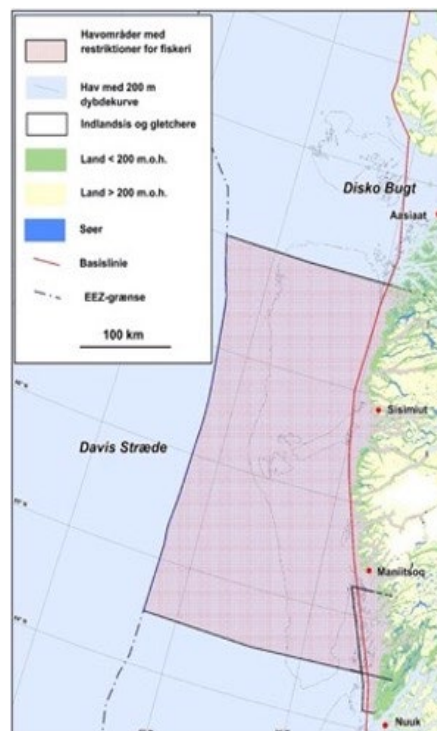
- Areas with restrictions related to fishing activities with considerations and concerns especially related to fish and benthic communities;

- areas with restrictions on activities related to mineral exploration and exploitation and potential disturbances of sensitive species, including seabirds and marine mammals; and
- marine areas that are protected through other legislation, but which cannot be categorized or designated as MPAs. This includes areas that are designated as seabird breeding sanctuaries.

The initial screening shows that 22 areas included in the above three categories may qualify as OECMs. These areas comprise around 140.000 km<sup>2</sup>, corresponding to 6.2% of Greenland's marine area. The work will inform Naalakkersuisut on next steps that can be taken in recognizing and reporting on managed areas that ensure long-term conservation of biodiversity.

#### ***Case study: Initial identification of potential OECMs on the Westcoast of Greenland<sup>2</sup>***

The OECM screening process identified several areas closed to bottom-contact fishing gear. These areas are defined in the *Executive Order on Technical Conservation Measures in Fisheries* which defines restrictions on fishing gear, spatial and temporal restrictions, closed areas, etc. in the fisheries sector. Figure 8 shows two such areas. The large red area in figure 8 is closed to Greenland Halibut fishing using bottom-contact gear (trawl only) and the smaller red area is closed to all fishing using bottom-contact gear. These two areas have been screened against the CBD Decision 14/8 Annex III four primary OECM criteria, but not the ten sub-criteria, and as such have been identified as potential OECM candidates.



**Figure 8.** Two areas identified in a screening process as potential OECM candidates. Both areas have restrictions on the fisheries sector, specifically on the use of bottom-contact fishing gear. The areas have not been screened against sub-criteria of CBD Decision 14/8 Annex III.

### **4.3 Iceland status and approach to identification of OECMs**

In Iceland, marine protection and management of living resources fall under the mandates of the Ministry for the Environment, Energy and Climate, and the Ministry of Food, Agriculture and

<sup>2</sup> After the editorial deadline of this report new legislation was passed in Greenland on temporal and spatial fisheries closures which might have an influence on the provided case study.

Fisheries, respectively, and are based on the Nature Conservation Act, the Act on Fishing in Iceland's EEZ, the Fisheries Management Act, and associated regulations.

The first step towards integrating OECMs into Iceland's toolbox of preservation and conservation measures was taken in spring 2023, when the Minister of Food, Fisheries and Agriculture appointed a Steering Group, tasked with reviewing existing measures for marine conservation and management to determine their compatibility with international guidelines for OECMs, and proposing next steps. This Steering Group began its work by recommending the translation of relevant English terms (e.g. MPA, OECM) into Icelandic, emphasizing the importance of standardization, and signaling that this work marks the beginning of the necessary administrative process. The Steering Group published its conclusions in a report issued in July 2024 ([here](#) – only available in Icelandic).

The Steering Group recommended:

- increased cooperation amongst relevant ministries, agencies and institutions, as well as amendments to regulations on marine areas that already enjoy protection to some extent,
- that relevant agencies and institutes be tasked with proposing which marine areas should be protected, based on prior research and best available data, and
- protection of marine areas outside main fishing grounds, based on a precautionary approach, to ensure that research of the respective marine area is carried out before permits for any kind of resource utilization are issued.

The Steering Group also proposed the following work process for the designation of OECMs, based on the Act on Fishing in Iceland's EEZ:

- 1. Pre-examination of potential marine areas for OECM recognition.** Any pre-examination of potential areas would be initiated by the Marine & Freshwater Research Institute. The reason for a pre-examination could include the results of research in the marine area in question or indications from stakeholders regarding the biosphere in certain areas. The Marine & Freshwater Research Institute would seek advice from external experts as appropriate in each case. The product of the pre-examination should be a proposal that includes a description of the area(s) recommended for further examination, sent to the Minister of Food, Fisheries and Agriculture, so they can be forwarded to an interdisciplinary group for examination and further assessment. The following conditions must be met for an area to be designated as an OECM:
  - a. The areas are not already recognized as protected areas.
  - b. Area boundaries have been established.
  - c. Clear management is in place for the areas or can be established.
  - d. It has been confirmed that area management supports biodiversity.
  - e. It has been assessed for known threats/stressors affecting biodiversity.

The conclusion of the Marine & Freshwater Research Institute might be that the area has a high conservation value that needs to be assessed in relation to section VI of the Nature Conservation Act (i.e. whether the relevant natural monuments fall under Article 35 of the Act and shall be registered in the natural heritage registry and, as the case may be, protected [cf. section 3.2 of the Act]). It is important to ensure that such information is included in the preparation process of the implementation plan for the natural heritage registry.

- 2. Follow-up examination: Interdisciplinary assessment of specific areas.** The product of the follow-up examination is an analysis of the specific area(s), as well as proposals for next steps for each area analyzed:

- Designation as an OECM. This applies in particular to measures regarding fisheries management.
- Directed to the Ministry responsible for nature conservation areas. This applies in particular to measures regarding other resource utilization or the protection of areas.
- Directed to the Ministry responsible for matters pertaining to shipping. This applies in particular to measures overlapping shipping routes, where pollution from ships has been restricted.

The product of the interdisciplinary assessment is the following:

- a. Description of important characteristics of the biodiversity of each area.
- b. Description of current and potential stressors on the area and adjacent areas in relation to biodiversity.
- c. Description of whether area-based fisheries management measures can reduce or prevent risks and threats to biodiversity.
- d. Description of other threats than those pertaining to fisheries and whether they could negatively affect biodiversity. Description of whether and how stress/threats could be managed. Description of other area-based measures that could prevent stress.
- e. Analysis of whether and how the suggested action would have a positive effect on ecological processes.
- f. Analysis of how long-term conservation would be maintained through legal or other effective means (such as through laws or regulations).

The Ministry would present proposals resulting from the interdisciplinary assessment on the government consultation portal.

### **3. Evaluation of proposals and decision process.**

- a. After presenting a proposal on the government consultation portal, the Minister of Food, Fisheries and Agriculture evaluates the proposals resulting from the interdisciplinary assessment and approves proposals for areas that meet the criteria for active fisheries protection measures (cf. Fisheries OECMs according to FAO).
- b. The Minister subsequently presents a draft regulation on area-based fisheries protection measures on the government consultation portal.
- c. The Minister issues a regulation on area-based fisheries protection measures.
- d. The Minister can also refer areas designated for OECM recognition to the Minister responsible for the implementation of the Nature Conservation Act, if it has been established that regional fisheries protection measures are insufficient to protect the biodiversity within the area.

### **4. Process for reporting approved OECM areas.**

- a. The Minister of Food, Fisheries and Agriculture approves OECM areas to be reported.
- b. Areas are reported to the UN Environment World Conservation Monitoring Centre, UN WCMC and the relevant treaties or agreements e.g. OSPAR.

The Steering Group recommends that the team conducting the interdisciplinary assessments of areas under consideration is convened each time the Marine & Freshwater Research Institute's pre-examination of an area is available. Further, it is suggested that the team include the following:

- An expert from the Icelandic Institute of Natural History, to ensure a connection to the work on the natural heritage registry.

- An expert from the Directorate of Fisheries, to ensure consideration for the interests of the fishing industry in the relevant area, and compliance to the regulations and administration of the fisheries industry.
- An expert from academia with knowledge of marine issues.

The proposed methodology is inspired by FAO's [A handbook for identifying, evaluating and reporting other effective area-based conservation measures in marine fisheries](#), published in 2022. It is important to note that the Steering Group's proposals haven't yet been put into practice.

#### **4.4 United States (U.S.) status and approach to identification of OECMs**

The U.S. recognizes the contributions of diverse area-based management to conservation outcomes, and looks forward to fully applying the OECM concept. In 2024, the U.S. launched a Conservation and Stewardship Atlas, which contains data layers of diverse types of protected and conserved areas in U.S. lands and waters. The Atlas provides a national picture, showing about one third of U.S. marine waters are being conserved by MPAs and fishery habitat conservation areas.

While NOAA and land management agencies have not yet begun reporting on OECMs, they are reviewing the criteria and considering how to apply them. As the lead agency for reporting on area-based ocean conservation, NOAA is aligning its approach to the Conservation and Stewardship Atlas with future reporting on OECMs, so that the two concepts are closely linked.

NOAA has begun characterizing its marine area-based management to better understand the characteristics of these diverse areas and how they may align with OECM criteria.

#### **4.5 Norway status and approach to identification of OECMs**

The concept of OECMs has been considered relevant for a long time in Norway. Norway's national biodiversity action plan (Meld. St. 14 [2015-2016]) states that:

"...not only protected areas under the Nature Diversity Act, but also conservation measures under other legislation, may be identified as 'other effective area-based conservation measures' as mentioned in Aichi target 11. To be designated as OECMs, measures must provide a sustained and effective contribution to the conservation of geographically delineated areas that support valuable biodiversity."

Norway's integrated plan for the conservation of areas of special importance for marine biodiversity (Meld. St. 29 [2020–2021]) also states that a more systematic approach for protecting important areas for marine biodiversity through MPAs and OECMs will be established.

Based on this the Norwegian Environment Agency, the Fisheries Directorate and the Institute for Marine Research, performed an initial assessment to determine which areas might meet the OECM criteria. It was found that area-based measures are actively used as a tool for environmental sustainability outcomes in the management of the fisheries sector.

The Norwegian National Biodiversity Strategy (Meld. St. 35 [2023–2024]) emphasizes that as part of the process of recognizing OECMs in Norwegian areas, further considerations related to environmental values, the effectiveness in protecting values, and the impact of activities and geographical delimitation will be carried out. The strategy also states that the government will present a plan including how future environmental targets for the marine areas can be achieved while promoting sustainable use of the areas.

#### **4.6 Examples of practices for identifying OECMs in the Arctic**

The marine case studies from the Nordic OECM workshop (Tromsø, 14-15 April 2024)-(link to be provided to the workshop report during final layout) highlighted various conservation measures implemented in the Arctic region, showcasing diverse approaches to achieving long-term biodiversity outcomes outside protected areas as summarized below:

1. River Mouth Fisheries Restrictions, Finland: These restrictions aim to protect migratory fish species by regulating fishing activities in specific river mouth areas. The approach highlights the importance of spatial management to enhance biodiversity conservation in freshwater and marine transition zones.
2. Lumpfish Closure, Iceland: Iceland has designated specific areas as lumpfish closures to protect this species during critical life stages. These closures are examples of targeted measures to support species conservation within commercial fisheries contexts and indicate potential OECMs.
3. Commercial Fisheries Regulations to Protect Vulnerable Marine Ecosystems, Norway: Norway employs commercial fisheries regulations that protect vulnerable marine ecosystems, including coral reefs and other sensitive habitats. These regulations aim to balance commercial fishing with the need to conserve critical marine environments.
4. Bottom Gear Closure to Protect Coral, Norway: Similar to the broader fisheries regulations, specific bottom gear closures are implemented to prevent damage to coral reefs. These closures are critical for preserving the structural complexity and biodiversity of coral habitats.
5. North-East Atlantic Fisheries Commission (NEAFC) Closed and Regulatory Area 4 (the part of the areas beyond national jurisdiction in the Arctic Ocean covered by the NEAFC convention): This area is managed under the NEAFC regulations to protect deep-sea ecosystems. It involves spatial management strategies to safeguard biodiversity from the impacts of deep-sea fishing activities. No bottom contact fishing is allowed.

These case studies, presented at the Nordic workshop, demonstrate diverse approaches to marine conservation, highlighting the importance of adaptive management, rightsholder and stakeholder engagement, and the use of diverse knowledge systems to achieve effective biodiversity conservation.

## 5. Overview of Indigenous sustainable management practices and approaches to Indigenous engagement in marine area-based conservation

### 5.1 Indigenous Peoples and conservation

Indigenous Peoples worldwide have physical, nutritional, spiritual, and cultural relationships with nature across their homelands, ensuring the conservation, protection, and management of these lands, waters, species, ice, and air since time immemorial. Areas managed by Indigenous Peoples result in increased biodiversity and stronger ecosystems when compared to areas not managed by Indigenous Peoples (e.g., Berkes et al. 2007; Gadamus et al. 2015; Larigauderie & Mooney 2010; Reid et al. 2022; Schuster et al. 2019; Schuster et al. 2019; Ricketts et.al. 2010; Nepstad et.al. 2006; Gilligan, 2006). However, areas managed and conserved by Indigenous Peoples are significantly under recognized and underrepresented in global conserved area databases, owing in part to lack of clarity, or agreement, of their definition and recognition in international conservation policy (Artelle et al., 2019; Daniel, 2019; Jonas et al., 2014). Despite this, efforts have been made to support the recognition of Indigenous protected and conserved areas, for example through their inclusion in the WDPA since 2016 ([UNEP-WCMC 2019](#)).

Supporting Indigenous-led management and conservation can assist states in meeting both conservation targets and goals, and respecting the rights, self-determination, and sovereignty of Indigenous Peoples (e.g., Mansuy et al. 2023). Historically, and continuing today, Indigenous Peoples are impacted by ecological degradation and legacies of prior conservation efforts that proceeded without their consent, consultation, or engagement (Dominguez & Luoma 2020; Jacobs et al. 2022). Creation and management of OECMs by Indigenous Peoples provides opportunity for fair and equitable governance.

Indigenous management practices are broader and more holistic than Western frameworks and systems, notably, “Indigenous economies followed Indigenous worldviews, which understand that human systems are a part of, and must remain in balance with, ecosystems. The outcome and effect of these worldviews and economic practices was abundant, thriving biological diversity,” (Indigenous Circle of Experts, 2018).

*“For many Indigenous and Traditional Peoples, we come from the lands, waterways, and seas, and as such the stewardship for maintaining a healthy country is synonymous with maintaining our own health” (Ganesharajah, 2009).*

### 5.2 Indigenous environmental management in the Circumpolar Arctic

The Arctic is, and has been, the homeland of Indigenous Peoples across 40 different Indigenous cultural groups (Figure 9; Arctic Council 1998; Karvinen & Rantakallio, 2019). Within the Arctic the areas used, occupied, and managed by Indigenous Peoples represent a significant portion of the geographic area and its biodiversity (e.g., Berkes et al., 2007; Etiendem et al., 2020; ICC 2020; NLCAA 1993, IFA, 2005). Throughout the circumpolar Arctic, many Indigenous communities are concentrated along the coastline where the harvesting of marine and freshwater species was, and continues to be, culturally important for subsistence, community, and northern economies (e.g., Sakakibara, 2017; ICC, 2020).

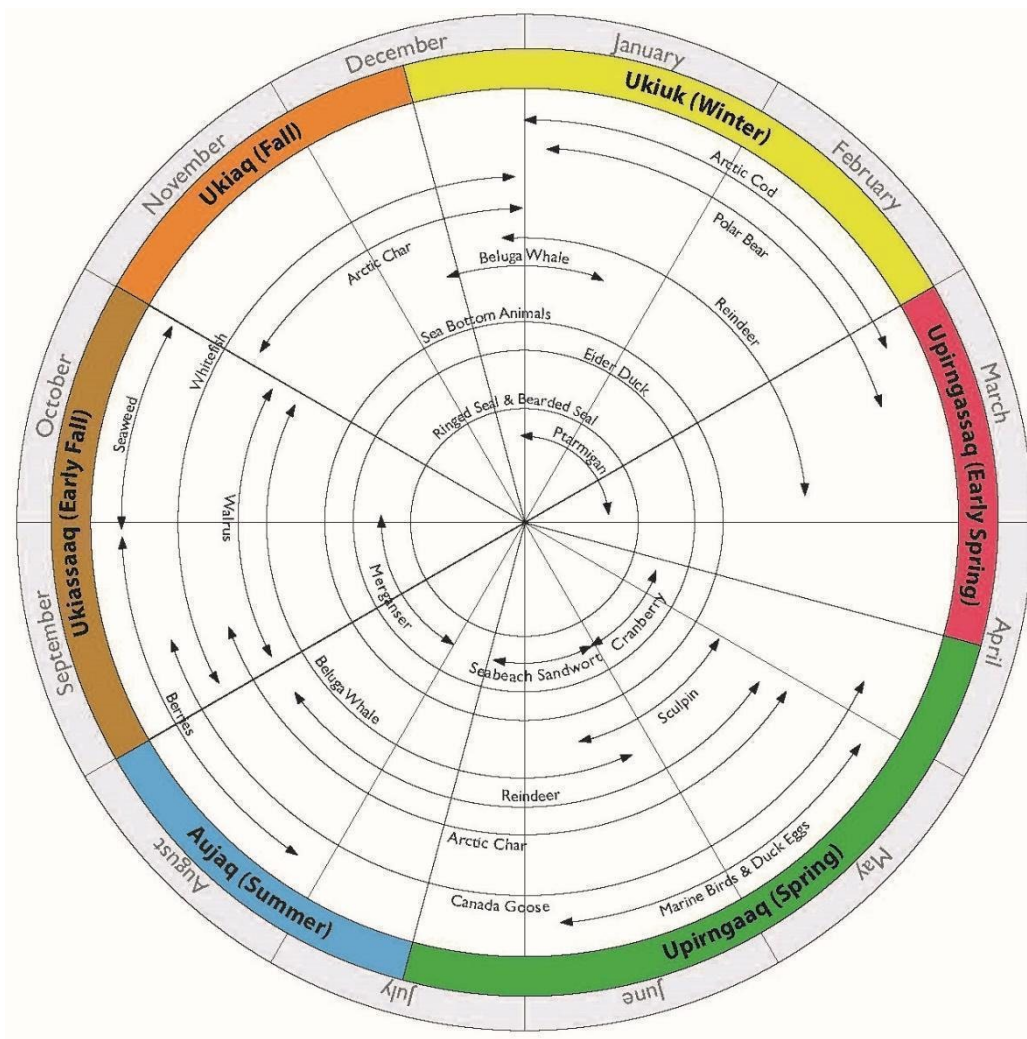


**Figure 9.** Map of the Permanent Participants of the Arctic Council. (<https://www.grida.no/resources/13341>, Levi Westerveld and Philippe Rekacewicz)

Arctic Indigenous Peoples management practice of “conservation through use” aligns with the natural world and constantly evolves through Indigenous traditions, customs, rules, and laws, Indigenous Knowledges, and through constant observation and utilization of the natural world (ICC 2020). This worldview has evolved over centuries and continues to evolve in the face of colonization, climate change, and exploitation of natural resources for profit (Armitage et al. 2011; Huntington et al. 2016).

Indigenous management approaches are founded in a range of formal and informal processes, tied to traditions, customs, rules, and laws carried through customary rights, ceremonies, songs, taboos, totems, observation, and active decision making focused on sustainability. This results in a conscious and intentional balance of use and sustainability of shared resources. For example, the Inuit harvesting calendar (Figure 10), based on Indigenous Knowledge of elders from Sanikiluaq, Nunavut, recognizes critical life-history stages, protecting species from harvest at times of year when they are vulnerable, and allows maintenance of healthy populations. Saami practices are centered on respectful relations with nature, that include fishing or hunting activities, and *mearradikšun* (sea caring practices) (Gilbert et al. 2024). These successful and sustainable management practices are deeply important and have strong cultural links (e.g., Gilbert et al. 2024; Buschman 2022; *M'sit No'kmaq* et al. 2021), however, they are often marginalized and excluded in current state-mandated management and conservation decisions (Fischer et al. 2022).

Indigenous-led conservation efforts, including managed lands and waters, both globally and across the circumpolar Arctic are increasingly recognized (Alexander et al. 2019). Here, rightsholders directly manage natural resources for environmental, cultural, spiritual, and economic benefits for both communities and society at large (see Table 2 for examples). Indigenous management approaches are inherent and self-evident through centuries of proven success, and through increasing recognition for their roles in achieving global conservation targets and goals, simultaneously recognizing their importance to conservation governance. For the approximately 370 million Indigenous and Traditional Peoples globally, viewing humans as a part of nature is already inherent (UNESCO, 2018). Common to Indigenous worldviews is an understanding of the interconnectedness and right to life that the environment and everything within it has, placing humans within and as part of the ecosystem. When taking this view, the health of the land and of humans cannot be separated, and the survival of wildlife and humans are closely linked (Fischer et al. 2022; Cajete 2000; Johnson et al. 2012; Johnson et al. 2016).



**Figure 10.** Inuit harvesting calendar based on Indigenous Knowledge of elders from Sanikiluaq, Nunavut, Canada. Reproduced from Arctic Eider Society (2022).

There are many local, national, and international laws and legal instruments that support the interrelated, interdependent, and indivisible rights of Indigenous Peoples and thereby safeguard Indigenous Peoples’ distinct statuses, including hunting, fishing, and harvesting rights. However, present systems and frameworks for management and co-management fall short (ICC, 2012) (Box 4).

*“For thousands of years, Inuit have lived on the land, water, and ice that make up Inuit Nunangat. As the climate changes and the ice melts, more and more people begin to take an interest in our homeland, and the waters that connect it from east to west ...”* (Inuit Tapiriit Kanatami, 2017)

**Box 4.** from the ICC Food Sovereignty and Governance Report

*Inuit have a holistic view and approach, understanding the interconnections between all within an ecosystem. In fact, the single-species approach to management emphasized by dominating cultures is one of the largest barriers to a co-management system that equitably includes Inuit, and that approach is often viewed to be harmful to animals....it is important to remember and understand that the walrus, char, beluga and salmon are intimately interconnected to each other and all other parts of the ecosystem. Like the nature of human rights, everything is interrelated, interdependent, and indivisible. If you alter one element, you impact the whole. The walrus, char, beluga, salmon, and Inuit share the environment and are species within ecosystems teeming with bowhead whales, seals, polar bears, cod, seaweed and on land caribou, freshwater fish, muskox, berries, roots, and bird eggs. (page 17)*

*For thousands of years, Inuit ingenuity and Indigenous Knowledge were solely responsible for the successful management of Arctic resources. Inuit have been and continue to be part of the environment through deeply rooted values which govern relationships with the whole environment. [Project Participant] repeatedly stressed that “management” is not a new concept. As Participants shared, “Our ancestors thrived by living an Inuit way of life, using our Indigenous Knowledge, applying our rules/laws/practices” and “We have our own way of life, we have our own laws.”*

*These rules/ practices/laws and values shared need to be at the forefront of all management discussions. Inuit hold a strong spiritual connection to the animals, land, water, and air. Hunting, fishing, and gathering are important for clothing, building materials, art, medicine, spirituality, self and community identity, health and wellness, connecting to the land, and all of the other components that make up food security. The reciprocal relationships held between Inuit and the environment in which they are part was described by participants to be a source of happiness. To Inuit, the term “management” can be difficult to translate directly, but the matter goes far beyond law and policy. Rather, it is closer to a way of life central to the continued existence of Inuit communities. (ICC, 2012)*

### **5.3 Other Effective Area-based Conservation Measure (OECM) and Indigenous Protected and Conserved Area (IPCA) terminology**

Over the past two decades, the international conservation community has increasingly recognized the role that Indigenous Peoples have in conservation, and how they have been affected by the implementation of conservation within their lands and territories (Beltrán & Phillips 2000). This consideration has led to a new concept - the Indigenous Protected and Conserved Area (IPCA) - a term that has been increasingly referenced within international biodiversity conservation discussions but remains to be universally defined.

In Canada, the 2018 Indigenous Circle of Experts (ICE), referred to the term “Indigenous Protected and Conserved Areas” as a catch-all that refers to “lands and waters where Indigenous governments have the primary role in protecting and conserving ecosystems through Indigenous laws, governance and knowledge systems.” The ICE found that, although IPCAs may vary in their forms of governance or management, they generally share three essential elements: they are Indigenous-led; they represent a long-term commitment to conservation; and they elevate Indigenous rights and responsibilities. While the work of the ICE focused on exploring pathways to achieving only terrestrial conservation targets in Canada, it also recognized that separating terrestrial and marine

environments did not align with Indigenous worldviews and management practices—and that IPCAs apply to both land and marine spaces (ICE 2018). In practice, states have already begun advancing IPCAs in partnership with Indigenous communities in different regions. In Sápmi, the most known example is the Laponia conservation area on the mountainous border region between Norway and Sweden. There are, however, no examples of marine IPCAs within the Nordic nations although Saami have important ties to marine ecosystems and resources (e.g., Brattland 2013, Johnsen & Sjøreng 2018).

In her report as the Minister's Special Representative on Arctic Leadership for Canada, Mary Simon pointed to Indigenous protected areas as a tool that could contribute to healing and reconciliation, and described them as follows:

*Indigenous protected areas are based on the idea of a protected area explicitly designed to accommodate and support an Indigenous vision of a working landscape. Indigenous protected areas have the potential to serve as a platform for developing culturally appropriate programs and hiring of Indigenous Peoples in a wide range of service delivery including: environmental and wildlife monitoring; vessel management and monitoring; emergency preparedness and response; search and rescue; tourism opportunities; expanded or new guardians programs (Government of Canada, 2017).*

The CBD Glossary of Relevant Key Terms and Concepts within the Context of Article 8(j) and Related Provisions defines a similar concept to IPCAs under the title “Indigenous Peoples’ and Local Communities Conserved Territories and Areas (ICCAs)”. ICCAs are described as Indigenous Peoples’ and community conserved territories and areas that are natural and/or modified ecosystems containing significant biodiversity values, ecological services, and cultural values, voluntarily conserved by Indigenous Peoples, both sedentary and mobile, through customary laws or other

**Box 5.** The language of conservation

Terminology is important for not only perception but also functionally considering differences in state legislation. Naming an area as “protected” or “conserved” may bring with it negative perceptions, implying that it is closed for *all* use, including subsistence activities. This perception is not without reason. In many cases, conservation and restoration efforts around the world have historically infringed on the rights of Indigenous Peoples through further dispossession and displacement from their lands and waters, practicing ‘fortress conservation’ (Nowlan et al. 2019, Dominguez & Luoma 2020; Mason 2021).

With this in mind, how Indigenous managed areas are termed can be complicated given differences in how states legislate activities in areas deemed a ‘national park’, ‘heritage area’, or ‘wildlife refuge’, for example. Additionally, not all Indigenous Peoples agree on terminology, and states may not have policies or authorities to support the development of Other Effective Area-based Conservation Measures or Indigenous Protected and Conserved Areas (IPCAs).

effective means. Areas conserved by Indigenous Peoples could potentially be recognized as protected or conserved areas, subject to their “prior informed consent” or “free prior informed consent” or “approval and involvement” or request, according to the national circumstances (Secretariat of the Convention on Biological Diversity, 2019).

While Indigenous management practices and IPCAs vary widely in their application, scope, objectives, etc., when considering the CBD Decision 14/8 Annex III criteria B, they could be considered for OECM recognition even though the term IPCA is not yet widely accepted, universally defined or understood across the circumpolar Arctic. The Arctic is a diverse region and there are wide ranging opinions on the term IPCA. Some Indigenous groups have been quick to adopt the term, while some may distrust what an IPCA could mean to their community, traditional uses and access to lands and waters. In Canada, in particular, where there are land claims and clear

Indigenous title and rights, there are concerns as well as questions about what an IPCA designation may mean where Indigenous Peoples already have clear rights and legal jurisdiction. While there is a lot of interest in IPCAs as an emerging conservation tool and as new areas are being identified, their implementation and management can be complicated in practice, especially given that states may not have legislation or the ability to support the development of OECMs or IPCAs.

**Box 6: Imappivut - Nunatsiavut Marine Plan – Inuit co-management advancing a marine Inuit Protected Area**

The Government of Canada and the Nunatsiavut government (representing Inuit in northern Labrador) signed a Memorandum of Understanding (MOU) in February 2022 for the establishment of an Inuit Protected Area (IPA) in the waters adjacent to the Torngat Mountain National Park. The area will be designated under the *Canada National Marine Conservation Areas Act* as part of a wider initiative called Imappivut - Nunatsiavut Marine Plan, which ensures the rights of Inuit are maintained while working to continue to conserve and protect parts of Nunatsiavut’s waters, grounded in the foundation of Inuit Knowledge and priorities of Labrador Inuit. The proposed protected area is approximately 16,791 square kilometers. Inuit have been stewards of this region since time immemorial and they continue to practice their traditions on its lands and waters (Parks Canada 2022; Nunatsiavut Government 2018). Long-term outcomes for the in situ conservation of biodiversity are evident as these practices have been in place since time immemorial.

**Effective Indigenous Co-Management:** The Torngat IPA development was advanced through the current co-management framework in place for the Torngat Mountain National Park. The Torngat Mountain National Park Co-Management Board (CMB) is made up of seven members with two members from the Nunatsiavut Government, two members from the Makivik Corporation, two members from Parks Canada, and an independent Chairperson. Currently, all members of the CMB are Inuit. Both Indigenous Knowledge and science are used within this co-management model.

Although this is only one example, it is representative of the core effort of co-management as it takes place in practice, where cooperation occurs between Indigenous management and scientific effort.

**5.4 Indigenous management as a means to conserve global biodiversity**

Respecting Indigenous management practices of their lands and resources will benefit biodiversity and bring with it social and economic benefits (e.g., Mansuy et al., 2023). Indigenous management practices have developed in concert with the natural world and continue to evolve, as does the way in which national governments and conservation organizations approach the conservation of biodiversity at a global, regional, and national level. Not only do Indigenous Peoples need to be part of the conversation to address the global biodiversity crisis, but recognizing Indigenous management is essential to achieving the targets we have set for biodiversity conservation. Equitable management requires approaches, processes, and interpretations that are inclusive and respectful of multiple and diverse worldviews and knowledge systems (ICC, 2020). The Indigenous worldview, which places humans within the ecosystem and regards the health of animals as indivisible from their own health, will lead to conservation focused outcomes (Artelle et al. 2019).

**Table 2:** Examples of Indigenous managed areas or areas of interest for Indigenous management and comparison to OECM criteria.

Indigenous Managed Area	Description	Location	Geographic area/coverage	OECM Criteria
Saami – Laponia (terrestrial)	A UNESCO World Heritage site since 1996 and an important area for Saami. Within the site there are 65,000 reindeer that graze in the summer, and there are also two national parks and a	Sweden	9,400 km <sup>2</sup> Laponia represents 83% of the total protected area	Yes - already counted towards Aichi targets

	nature reserve within its borders.		in Sweden.	
Thaidene Nënë Indigenous Protected Area	The national park reserve is a component of the Thaidene Nënë Indigenous Protected Area (IPA) which also includes a Territorial Protected Area and a Wildlife Conservation Area that are administered by the Government of the Northwest Territories. Management of Thaidene Nënë National Park Reserve is shared with Parks Canada and the Łutsël K'édé Dene First Nation, Northwest Territory Métis Nation, Deninu K'ue First Nation, and Yellowknives Dene First Nation.	Northwest Territories, Canada	26,000 km <sup>2</sup>	Yes - already counted towards Aichi targets.
Nunatsiavut-Proposed Inuit Protected Area	The proposed IPA, in waters adjacent to the Torngat Mountains National Park is in the final stages of becoming a new marine protected area. The area is critical habitat to beluga whales, seals, breeding and migrating seabirds and waterfowl, and a variety of fish. It has been an area of continuous human use and settlement for nearly 10,000 years.	Labrador, Canada	~16,700 km <sup>2</sup> (IPA/marine component)	Yes
Pribilof Islands Marine Conservation Area	In 2017, The Unangan Heritage National Marine Sanctuary (UHNMS) was nominated and in 2021, the Alaġum Kanuuġ NMS was nominated, which encompassed the UHNMS and additional areas. Both are on the U.S. federal government's inventory of successful nominations but have not moved into the designation process for further scoping. Currently the Aleut Community of St. Paul Island is exploring options for area-based conservation as an OECM.	Pribilof Islands, Bering Sea, Alaska	Not defined	Not yet evaluated

## 6. Conclusion and Next Steps

OECMs are an important additional tool to complement protected areas in conserving marine biodiversity in the Arctic. Their focus on conservation outcomes and engagement of diverse sectors in conservation actions has the potential to expand coverage, fill key gaps, promote ecological connectivity, and conserve ecosystem functions and services within the Pan-Arctic Conservation Network.

The tools and approaches below are based on lessons learned from Arctic States' MPA programs, their experiences in recognizing OECMs, and international guidance. These approaches can be further developed as part of the work in CAFF and PAME's area-based conservation measures toolbox. PAME and CAFF recognize the value of ongoing dialogue and exchanges to share knowledge, experience and lessons learned in recognizing and managing OECMs and aim to develop further guidance to assist Arctic States in advancing their OECMs.

### ***Utilizing and building upon Existing Tools and Frameworks***

Leveraging existing tools and frameworks, such as the *Pan-Arctic Conservation Framework*, Ecologically and Biologically Significant Areas (EBSAs), and Marine Spatial Planning (MSP) can potentially inform and help streamline the identification process on a Pan-Arctic scale. It is also important to integrate national considerations in the process of meeting national conservation targets.

Utilizing established international OECM guidelines and processes, like those from the CBD and IUCN and, with respect to fisheries, guidance from FAO, ICES, and the IUCN Fisheries Expert Group, ensures that Arctic OECMs meet international standards and contribute to global biodiversity conservation goals. PAME and CAFF can consider reporting on OECMs in future PAME/CAFF *Status and Trends for Arctic Conservation Measures*, which is periodically published to report on the status of terrestrial and marine protected areas.

### ***Inclusive and Collaborative Processes***

Effective identification of OECMs in the Arctic marine environment benefits from collaborative processes that actively involve, or are led by, Indigenous Peoples, and various stakeholders from the outset. Engaging diverse voices produces conservation measures that respect cultural values, Indigenous Knowledge, and socio-economic context. Early and continuous engagement with rights holders and stakeholders fosters collective ownership and support for OECM initiatives.

### ***Using Best Available Knowledge, including Indigenous Knowledge***

Arctic States should use the best available knowledge to identify, recognize and manage OECMs, including Indigenous Knowledge. Indigenous Peoples should determine how Indigenous Knowledge is offered or obtained, and its composition, use, storage and application.

### ***Recognition of Indigenous Protected and Conserved Areas (IPCAs)***

Area-based measures recognized as OECMs can be established and managed under a variety of governance regimes. While there is growing interest in IPCAs and other types of Indigenous-led management as a conservation tool, there are some issues to consider. Moreover, prior and informed consent is a central component of recognizing OECMs. Indigenous Peoples have diverse views on whether Indigenous-led areas should be recognized as OECMs, and areas should not be evaluated or listed as OECMs without the consent of the managing entity and rights holders.

### ***Climate-Informed, Adaptive and Dynamic Management***

Given the rapid environmental changes in the Arctic, it is critical to adopt adaptive and dynamic management practices. This involves regularly monitoring the anthropogenic drivers as well as biodiversity outcomes and adjusting management strategies as necessary to address emerging threats and shifting ecological conditions. Climate change planning tools, including modeling potential futures, vulnerability assessments, and scenario planning are key components of this adaptive approach, ensuring that OECMs remain able to deliver biodiversity conservation benefits over time.

***Transboundary Cooperation***

The transboundary nature of many Arctic ecosystems necessitates cooperation across national borders and jurisdictions, including areas beyond national jurisdiction. Collaborative efforts among Arctic States can enhance the effectiveness of OECMs by harmonizing management practices and facilitating the sharing of data and resources.

***Integration Across Sectors and with National and Regional Conservation Strategies***

An important aspect of OECMs is their ability to foster conservation contributions by a wide range of sectors and actors. Integrating OECMs into sectoral plans (e.g. for fisheries, shipping) and broader national and regional conservation strategies, such as National Biodiversity Strategies and Action Plans (NBSAPs), ensures that their contribution to overarching biodiversity conservation objectives is recognized. National and sub-national laws, regulations and policies should also be reviewed to support a coherent approach to OECM identification, management, reporting, and strengthening. This alignment helps in mobilizing resources, enhancing policy and stakeholder support, and promoting a coordinated approach to marine conservation across different sectors and governance levels.

By following these practices, Arctic States can effectively identify and implement OECMs, thereby enhancing marine biodiversity conservation and supporting the sustainable use of marine resources in the region. A continued focus by CAFF and PAME on sharing lessons learned and working collaboratively to develop best practices on OECM identification, management and reporting will support these conservation outcomes.

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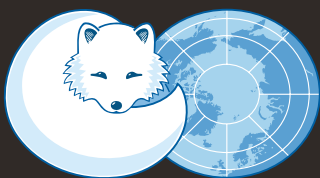
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