Technical Note

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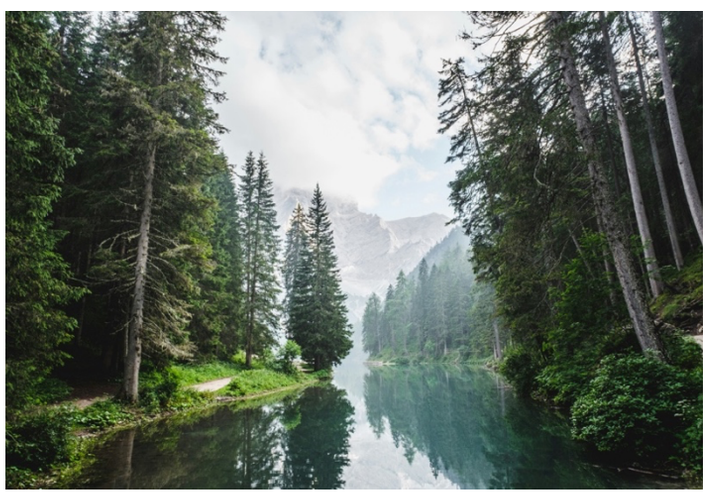
The role of OECMs for inland water biodiversity outcomes

In response to achieving the Kunming-Montreal Global Biodiversity Framework Target 3, specifically for conserving at least 30 per cent of inland water areas through a combination of protected areas and OECMs, while recognizing Indigenous and traditional territories, the inlands water community has been developing resources to achieve inland waters conservation outcomes. This document adds to this collection, focusing on OECMs in the inland waters context to achieve inland water conservation outcomes and ensure that more momentum, tools, and resources are leveraged towards effective inland water conservation.

Luangwa River, Zambia by © James Suter / Black Bean Productions / WWF-US



Lago di Braies, Italy by Luca Bravo (Unsplash)

Introduction

Decision 14/8 of the Convention on Biological Diversity (CBD) established the definition and criteria for “Other Effective Area-Based Conservation Measures” (OECMs). In that decision, agreed to by all parties, the IUCN was invited to assist in identifying other effective area-based conservation measures and in applying the scientific and technical advice.

To that end, the World Commission on Protected Areas of the International Union for Conservation of Nature (IUCN WCPA) has developed three key documents (listed below). These documents also reflect CBD Decision 15/4, known as Kunming-Montreal Global Biodiversity Framework (GBF).

Recognising and reporting other effective area-based conservation measures. 2019.

This document is a technical guide to OECMs. It provides a clear interpretation of CBD Decision 14/8, guidance on interpreting the criteria, examples of what can be included.

Site-level tool for identifying other effective area-based conservation measures (OECMs). 2023.

This tool guides an assessor through three steps to apply eight criteria which determine if a site qualifies as an OECM as set out under the Convention on Biological Diversity and the GBF. For sites which do not currently meet all the criteria, the tool serves to highlight areas where further information or improvements in governance and management are required.

Guidance for other effective area-based conservation measures (OECMs). 2024. (forthcoming)

This publication is being produced under IUCN WCPA's Good Practice Guidelines series relating to identifying, reporting, monitoring, and strengthening OECMs. The guidelines are intended for use by a wide range of rightsholders and stakeholders to promote understanding of whether a site meets the CBD criteria for identifying an OECM, how to report OECM data at the national and global levels, and how to monitor and strengthen OECMs.

The OECM technical report (2019), site identification tool (2023), and good practice guidelines (2024) apply to all ecosystems, including inland waters. However, in response to a high level of interest and questions from parties around inland water OECMs, IUCN WCPA has prepared this additional information on inland waters. This paper specifically explores how OECMs can deliver inland water biodiversity outcomes and identifies considerations for further exploration as countries begin the process of developing and applying criteria for OECM recognition.

Context

The GBF, which was agreed in 2022, includes a conservation target (Target 3) to conserve at least 30 per cent of terrestrial, inland water, and marine and coastal areas through a combination of protected areas and OECMs[1], while recognizing Indigenous and traditional territories. Inland waters are inclusive of freshwater[2] ecosystems, which encompass lakes, rivers, pools, marshes, and peatlands. Inland water biodiversity is among the most threatened globally for a variety of reasons, and inland water ecosystem protection has been identified as a key pathway for bending the curve of inland water biodiversity loss. In general, there has been a lack of attention and resources dedicated to safeguarding inland water ecosystems through protected and conserved areas (Abell et al. 2017). There is the opportunity to expand and strengthen the contribution of protected areas and OECMs that deliver inland water conservation outcomes and ensure that more momentum, tools, and resources are leveraged towards effective inland water conservation.

The delivery of inland water outcomes via area-based conservation measures can be complex to design and evaluate. For example, rivers are easily fragmented through construction of dams and other barriers that impede the migration of species, resulting in depleted populations or loss of biodiversity; protecting against fragmentation may require interventions that differ from those needed for the terrestrial ecosystems within which rivers are embedded (e.g., Santos et al. 2013, Barbarossa et al. 2020, Caldas et al. 2023). In Mongolia, the government has established industrial exclusion zones, including mining, within 200 meters of a water body in an effort to account for the immediate and downstream impacts of mining to water bodies (Surenkhorloo et al. 2021). This is one example of the complex nature of inland water protection extending beyond the immediate area of intervention. The opportunity afforded by OECMs to bring in a wider set of area-based mechanisms for conservation is critically important, given that a range of managed uses can be compatible with the delivery of inland water conservation outcomes (see more examples in Moberg et al. 2024).

The OECM framework has the potential to increase recognition and support for *de facto* long-term conservation that takes place outside of formal protected areas (CBD 2018). In fact, most countries have not yet submitted data on OECMs to the World Database on OECMs (WD-OECM) (Protected Planet 2024). Identification, reporting, monitoring, and strengthening of OECMs can be undertaken by governments, organizations, Indigenous Peoples, or local communities. Because most countries are currently developing processes for identifying and reporting OECMs, there are few established examples to draw upon; as a result, we offer hypothetical OECM examples based on management objectives and presumed potential effectiveness for inland water conservation outcomes.

[1] Full definition can be found at https://www.cbd.int/gbf/targets/3

[2] While the CBD uses the term "inland water," which refers to all aquatic-influenced environments located within land boundaries, this document focuses on the freshwater biome and its associated ecosystems, which are a part of the broader definition of "inland waters."

Potential types of inland water-related OECMs

Experience to date, including for inland water ecosystems, suggests that there are no types of area-based designations that will always and unequivocally be considered an OECM, given that decisions are needed on a case-by-case basis.[3] The primary distinction that would allow identification of an OECM would be that it is not already designated as a protected area, and that it delivers, or is expected to deliver, the long-term effective *in situ* conservation of biodiversity, regardless of its overall management objective (Table 1).

Table 1. Examples of possible types of management objectives and measures that might lead to an OECM status and that may have particular relevance for inland water ecosystems. This is not an exhaustive list of possible examples (adapted from Moberg et al. 2024). All examples should be assessed against the IUCN site identification tool.

Management objectives	Designation type or management mechanism
Conservation	Seasonal wetland and floodplain reserve
Provisioning/regulating/supporting	Inland fisheries reserves
Provisioning/regulating/supporting	Formal conservation of riparian areas
Cultural services	Sacred lakes, pools, springs, and wells
Connectivity	Managed or protected rivers that support ecologically or socio-economically important routes for migratory species (e.g., designated wild rivers or migratory swimways)
Recreation	Natural lakes used for recreation
Defense	Military buffer zones and training grounds inclusive of inland water ecosystems

Resources and considerations for identifying areas of particular importance for inland water biodiversity and ecosystem functions and services

This section includes some resources and considerations to support identification of areas of importance for inland water biodiversity and associated services; however, it is not an exhaustive list of all resources that exist and considerations.

Inland water biodiversity resources

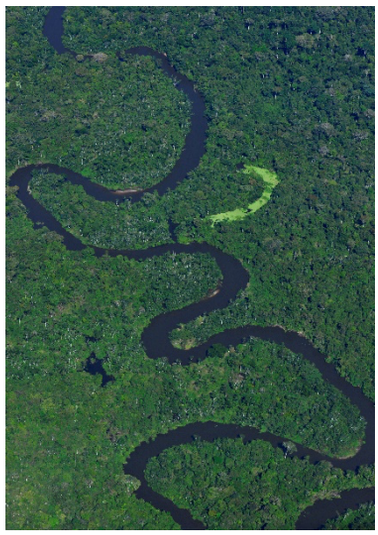
- Freshwater species distribution data from the IUCN Red List of Threatened Species; "Advanced Search" by "Systems": "Freshwater" to limit list to freshwater species; distribution data are available for download for non-commercial uses)

- Key Biodiversity Areas (KBAs) are defined as "sites contributing significantly to the global persistence of biodiversity", in terrestrial, freshwater, and marine ecosystems and are based on criteria in The Global Standard for the Identification of Key Biodiversity Areas (IUCN 2016). A recent study identified 13,993 freshwater KBAs, of which 44% are within protected areas or OECMs (Flitcroft et al. 2023). In addition, over 3,500 KBAs have been identified based on freshwater species and ecosystems, although many more remain to be identified based on updated taxonomic and geographic freshwater data. Data available for non-commercial use in the KBA database

[3] See OECM site-selection tool for more information: https://www.iucn.org/story/202308/site-level-tool-identifying-other-effective-area-based-conservation-measures-oecms

- The Freshwater Network of the Global Biodiversity Information Facility serves up freshwater species occurrence datasets and the Freshwater Information Platform similarly provides access to a range of freshwater biodiversity datasets

- The Ramsar Sites Information Service provides the locations of recognized wetlands of international importance



River in the Amazon by © WWF-Brazil / WWF Living Amazon Initiative / Adriano Gambarini

Emerging considerations for inland water-related OECMs

- OECMs can and most often will be influenced by current and future threats originating outside OECM boundaries (e.g. an upstream dam, or nonpoint source pollution derived from activities in the broader basin). These actions may compromise the effectiveness of an OECM in delivering inland water conservation outcomes over the long term. Also, if an area only mitigates against a limited subset of threats, the area may or may not be suitable as an OECM

- OECMs can count towards the global 30% conservation target, but it is unclear in the context of the CBD when they would count towards the disaggregated inland waters target

- Requirements to monitor inland water biodiversity may be necessary to ensure OECM effectiveness

Additional OECM resources

While the details of what constitutes and how to report on OECMs are still being developed, there are several resources that can be useful in understanding and beginning the process of identifying inland water-related OECMs (see below):

- Recognising and reporting other effective area-based conservation measures (IUCN WCPA Technical Report)

- Site-level tool for identifying other effective area-based conservation measures (OECMs): first edition (IUCN WCPA Technical Report)

- Guidance on other effective area-based conservation measures (OECMs) (IUCN WCPA Good Practice Guidelines, available Oct 2024)

- CBD 2018 Decision 14/8 on OECMs

- Designing and managing protected and conserved areas to support inland water ecosystems and biodiversity, Section 5.3 OECMs (IUCN WCPA Technical Report, available Oct 2024)

- A handbook for identifying, evaluating and reporting other effective area-based conservation measures in marine fisheries (FAO marine guidance, inland waters guidance in development)

- World Database on OECMs (WD-OECM)

- Other Effective Area-Based Conservation Measures (OECMs) in the Cook Islands (UNEP-WCMC discussion paper)

- Ramsar Site Management Effectiveness Tracking Tool (R-METT)

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