

Submission from the Convention on Wetlands to the 6th meeting of the Ad Hoc Technical Expert Group on Indicators on the effective consideration of wetlands in the KMGBF Monitoring Framework

Actions requested:

Standing Committee is invited to note the submission from the Scientific and Technical Review Panel (STRP) to the Ad Hoc Technical Expert Group (AHTEG) on Indicators on the effective consideration of wetlands in the Kunming-Montreal Global Biodiversity Framework (KMGBF).

Summary

1. Healthy wetlands are critical to achieving the vision and mission of the Kunming-Montreal Global Biodiversity Framework (KMGBF) and as such all 4 goals and all 23 targets of the Framework are of relevance to wetlands. The Scientific and Technical Review Panel (STRP) of the Convention on Wetlands has prepared this scientific and technical submission for the consideration of the Sixth meeting of the Ad Hoc Technical Expert Group on Indicators (AHTEG) of the Convention on Biological Diversity (CBD).
2. The STRP review of the KMGBF indicator framework was identified as a high priority task, recognising the importance of enhancing synergies between the CBD and the Convention on Wetlands for the global assessment of and reporting on wetlands.
3. The submission is focused in particular on: (1) KMGBF goals and targets where the headline indicators do not provide sufficient consideration of wetlands, and/or there is a lack of clarity on relevant data flows related to wetlands; and (2) KMGBF goals and targets that have major implications for wetlands. In line with this, the indicators related to the following goal and targets were reviewed: Goal A, Targets 2, 3, 5, 7, 9, 10, 11 and 12. The STRP has provided comments and suggestions on these.
4. To provide actionable advice to the AHTEG, this submission is divided into two parts. Part I provides general and cross-cutting observations and recommendations; and Part II provides the following information for the goal and indicators listed above:
 - The sufficiency of the headline indicators (as well as component and complimentary indicators) for inland waters, coastal and marine ecosystems ('wetlands' defined under the Convention on Wetlands);
 - Any potential data flows or sources for wetlands that might address these gaps; and
 - Highlighting which of the currently listed component or complimentary indicators are particularly important for wetlands.

5. Summary of the recommendations:
 - a. The STRP recommends that indicators are disaggregated by ecosystem type, where this is appropriate, including for inland waters and coastal ecosystems (which is inclusive of the shallow marine habitat types under the Convention on Wetlands' wetland typology) and in particular where inland waters and coasts are explicitly identified in the language of the target (i.e. Targets 2 and 3);
 - b. The STRP strongly recommends using a consistent ecosystem typology and that the ecosystem typology applied should include disaggregation by inland waters and coastal ecosystems ('wetlands' as defined by the Convention, refer to the [wetlands classification](#) of the Convention on Wetlands) to enhance global reporting for the CBD, Convention on Wetlands and SDGs;
 - c. Part II of this submission shows that there are still important gaps in the sufficiency of the headline indicators that will need to be reviewed to ensure effective consideration of wetlands;
 - d. There are component and complementary indicators already listed in the KMGBF monitoring framework, related to inland waters and coastal wetlands that could help to fill some of these gaps in the short term. It is recommended that these should be highlighted (and this could also be done for other ecosystem types). We also offer a number of additional indicators/ data flows to be considered for inclusion in the final indicator set;
 - e. A review of the list of component and complementary indicators presented in the KMGBF monitoring framework and development of basic metadata would be helpful to ensure that Contracting Parties to the CBD are provided with a robust set of indicators. Furthermore, it is recommended that it would be beneficial to develop further guidance to Parties for the selection of appropriate component and complementary indicators. In this submission we have identified specific component and complementary indicators that would help Parties in reporting on wetlands elements – and thereby meet reporting obligations under the Convention on Wetlands and the CBD.

6. The STRP wishes to express its support and appreciation for the work of the AHTEG in developing a set of indicators that can measure progress towards the goals and targets of the Kunming-Montreal Global Biodiversity Framework. There is considerable potential for the indicator framework to align with the targets and indicators under review for the 5th Strategic Plan of the Convention on Wetlands and we look forward to continued collaboration with the CBD and Parties to find synergies to support continued actions to address wetland conservation and wise use.

Introduction

Purpose

7. This document provides observations and recommendations concerning the importance of effective consideration of wetlands within the KMGBF monitoring framework, as adopted through [CBD Decision 15/5](#). It provides:
 - a. general observations concerning the overall visibility of wetlands within the monitoring framework; and
 - b. an assessment of the adequacy of the identified indicators for these ecosystems (including constituent biological or functional components of wetlands e.g. wetland species; ecosystem services etc., where relevant) to ensure that an assessment of wetlands or data related to wetlands can be included within the KMGBF monitoring framework and through the associated national implementation via the NBSAPs.

8. Recommendations are provided relating to strengthening the indicator metadata, where there are gaps in the sufficiency of indicators, preventing tracking progress for wetlands, and where possible where those gaps may be filled.

Target audience

9. The CBD Ad Hoc Technical Expert Group on Indicators (AHTEG) for the KMGBF monitoring framework.

Basis of this submission and other related work

10. This submission has been prepared by the Scientific and Technical Review Panel (STRP) of the Convention of Wetlands, at its 26th Meeting, 5 to 8 February 2024. The [STRP 2023-2025 triennium work plan](#) contains 5 thematic work areas. Task 5.2¹ focuses exclusively on developing synergies between CBD's KMGBF and the Convention of Wetlands including "on [the] appropriate application of wetland measures within the indicators and monitoring framework of the GBF", through "a submission on wetland indicators to be made to the Ad Hoc Technical Expert Group (AHTEG)". A Convention on Wetlands [policy briefing](#)² has already been made available to the Contracting Parties of the Convention on Wetlands and other Multilateral Environmental Agreements (MEAs). The policy briefing provides guidance on how to integrate wetland interests into NBSAPs. The STRP has also recently completed a joint CBD-Convention on Wetlands survey on National Focal Point linkages between the two Conventions and the outcomes will be made available to inform improved synergies.
11. One activity of task 5.2 is to evaluate the opportunities to adequately reflect wetland interests in the KMGBF monitoring framework, including in supporting the identification and selection of appropriate indicators. This document is a deliverable of this task. It responds to the invitation to all MEAs to contribute to the implementation of the KMGBF, as set out in [CBD COP Decision 15/13](#) and to the on-going commitment to the Bern process.³ The spirit of this submission is also made noting the important and long-standing cooperation between the Convention on Wetlands and the CBD. This cooperation is set out through [CBD Decision 3/21](#), where the Convention on Wetlands is recognised as having a lead role for inland waters through the CBD.
12. The collaboration between both the Conventions is guided through a Joint Work Plan. The Sixth Joint Work Plan between the CBD and the Convention on Wetlands for 2024-2030 is currently under development and due to be considered by the relevant subsidiary bodies in 2024. This work plan seeks to enhance the conservation, restoration, and sustainable/wise use of wetlands by aligning objectives and actions under the two Conventions, towards the full achievement of the KMGBF, notably with the aim to "align the objectives of both Conventions, enhance synergies, and maximize the impact of their actions in addressing the interconnected challenges of biodiversity conservation and wetland management". This contribution from the STRP is a pre-emptive response to this spirit and working objectives of this draft. Furthermore, it is noted the considerable potential for the KMGBF indicator framework to align with the targets and indicators currently under review for the 5th Strategic Plan of the Convention on Wetlands.

¹ Thematic Work Area 5: Cross-cutting issues, supporting functions, and synergies with other MEAs; Task 5.2: Guidance to support global implementation of Kunming-Montreal Global Biodiversity Framework (GBF) for wetlands.

² Kunming-Montreal Global Biodiversity Framework: Upscaling wetland conservation, restoration and wise use through National Biodiversity Strategies and Action Plans (NBSAPs).

³ Cooperation among the Biodiversity-related Conventions for the implementation of the Kunming-Montreal GBF.

Sources of information

13. The STRP recognises that since the Fifteenth meeting of the Conference of the Parties to the CBD (COP15), the AHTEG on Indicators has been progressing work to develop binary indicators, metadata for the headline indicators and considering the sufficiency of existing headline indicators to track progress against the different elements within the targets. It is also recognised that the most recent developments are not yet publicly available and may not have been considered. This submission has been developed on the basis of the monitoring framework as published in CBD Decision 15/5 and the information relating to headline, component and complementary indicators provided on the [Post-2020 indicator portal](#).

Structure of the submission

14. This submission is divided into two parts:
 - Part I: general and cross cutting observations and recommendations;
 - Part II: observations and recommendations by goal/indicator for Goal A and Targets 2, 3, 5, 7, 9, 10, 11 and 12.

Part I: General observations and recommendations

Definitions

15. The Convention on Wetlands takes a broad approach in its definition of wetlands, defined in [Article 1.1](#) of the Convention text as:

“areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres”.

16. The Convention has been designated as the lead implementing partner on inland waters for the CBD since the Third meeting of the Conference of the Parties to the CBD (COP3) in 1996 ([CBD Decision III/21 §7a](#)). In addition, the CBD has adopted the Convention on Wetlands definition of ‘wetland’ in respect of its programme of work on [Inland Waters Biodiversity](#).
17. In this submission the terms ‘inland waters’ and ‘coastal wetlands’ are used to describe wetlands in accordance with this definition, noting that wetlands under the Convention includes shallow marine waters.

Disaggregation of indicators, wetland classification and use of an ecosystem typology

- The ability to disaggregate indicators by ecosystem type is important to be able to see trends for inland waters and coastal wetlands.
- The Convention on Wetlands is currently considering reviewing its current wetlands classification system. Advice on whether a review would be beneficial and what any such revision could look like will be provided from the STRP to the 63rd meeting of the Convention on Wetlands’ Standing Committee, 3-7 June 2024. This advice will take into account developments such as the IUCN Global Ecosystem Typology (GET), and any key links across to the assessment and reporting against the CBD GBF goals and targets via the monitoring framework indicator suite.

- The STRP would support the consideration of AHTEG on the use of an ecosystem typology that allows for adequate disaggregation by ecosystem, particularly for inland waters and coastal wetlands, as a means for enabling effective reporting under the KMGBF, and for the Convention. An initial review has shown that the GET may align with the current Convention on Wetlands habitat classification and, if suitable, this would help increase the visibility of and functional reporting for inland waters and coastal wetlands in the application of the KMGBF monitoring framework.

Convention on Wetlands' 5th Strategic Plan – synergies with the KMGBF monitoring framework

- This submission will, in parallel, inform the ongoing development of the 5th Strategic Plan (2025-2030) under the Convention on Wetlands which will be considered for adoption during its Fifteenth meeting of the Conference of the Parties (COP15) in 2025. One of the key issues is working to ensure that there is strong alignment, wherever appropriate, between the GBF monitoring and indicator framework and the indicator framework to be developed through the Convention on Wetland's review and revision its 5th Strategic Plan, to maximise synergies between the two Conventions in this aspect. This should also be considered as a process that should be regularly revisited, as better options are developed to improve the monitoring and reporting of wetlands to achieve positive conservation outcomes, and to reduce of technical and reporting needs on Parties to the CBD and the Convention on Wetlands. To achieve this, dialogue between the two Conventions, and other MEAs where relevant, needs to continue following the conclusion of the business of the AHTEG.

Guidance to Contracting Parties etc. on relevant indicators for inland waters and coastal wetlands

- Guidance or direction from the AHTEG on the selection of (suggested) specific component and complementary indicators most relevant for different purposes under each goal and target (e.g. those most relevant for reporting on different ecosystem types through different global data flows) could be prudent. Otherwise, given the high number of component and complementary indicators for some goals/targets, there is a risk that the information submitted across Contracting Parties will be potentially very different between Parties and difficult to detect any regional or global patterns over time. Directing consistency in the choice of complementary and component indicators adopted by, and assessed across, Contracting Parties will improve the accuracy and relevance of the assessments through time, including for inland waters and coastal wetlands relevant to the Convention on Wetlands.

Part II: Indicator specific observations and recommendations by Goal/Target

18. Part II provides information relating to the sufficiency of the headline indicators (and component and complementary indicators) for wetlands (i.e., inland waters and coastal wetlands); recommendations for filling these gaps; and identification of relevant future work. This information is provided for Goal A, Targets 2, 3, 5, 7, 9, 10, 11 and 12.
19. **Note:** where ID numbers are indicated these are the ID numbers provided on the [UNEP-WCMC Post-2020 indicator portal](#) as of February 2024.
20. **Goal A:** *The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050; Human induced extinction of known threatened species is halted, and, by 2050, the extinction rate and risk of all*

species are reduced tenfold and the abundance of native wild species is increased to healthy and resilient levels; The genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential.

Headline indicator	<p>The STRP has provided comments focused on A.2 Extent of natural ecosystems and A.4 The proportion of populations within species with an effective population size > 500.</p> <p>Whilst indicators A.1 and A.3 are highly relevant to inland waters and coastal wetlands, it is felt that these are sufficient and will serve their purpose.</p>
Sufficiency of the indicator for wetlands	<p>The current headline indicator A.2 on extent of natural ecosystems, can provide information that contributes to understanding progress to Goal A, but is not sufficient on its own to understand integrity, connectivity, and resilience of an ecosystem.</p> <p>For water-related ecosystems, the change in extent is measured through SDG indicator 6.6.1, co-managed by the Convention on Wetlands and UNEP (see metadata; see data portal). Whilst this indicator is identified as a component indicator (ID 317), the STRP recommends that this component indicator is highlighted to Parties as vital to understand the extent, and the change in extent through time, of inland waters.</p> <p>As regards headline indicator A.4 on species populations, the STRP recognise the importance of genetic diversity for maintaining healthy wetlands and welcome the inclusion of a headline indicator to measure this component of the goal. However, A.4 as currently articulated does not sufficiently represent wetland species. The STRP recommends that the indicator should be based on a representative set of species that includes freshwater and coastal species.</p>
Recommendations on headline indicator metadata	<p>The STRP strongly supports disaggregation of this headline indicator by ecosystem type and in principle supports the use of the IUCN Global Ecosystem Typology, contingent on its alignment with SDG 6.6.1 and ability to sufficiently disaggregate wetland ecosystems (inland waters, coastal and shallow marine wetlands) as defined by the Convention on Wetlands.</p>
Recommendations on data flows / sources to fill the gap	<ul style="list-style-type: none"> • See above – it is recommended to make use of existing data flows derived from (and currently used for reporting against) SDG indicator 6.6.1. • It is also proposed to conduct a cross walk to see if SDG 6.6.1 can contribute to headline indicator A.2, based on the approach described in the metadata.
Identification of future tools to fill gaps	<p>The Global Partnership on Ecological Connectivity (GPEC) is a mechanism launched in February 2024 at the Convention on Migratory Species (CMS) COP14. Its activities include the development of connectivity indices, which will be vital for understanding ecological integrity and relevant to Goal A, Targets 2 and 3 and 12. The Convention on Wetlands is a partner. It will be important that indicators should be disaggregated by ecosystem type to be able to detect meaningful signals, including for inland waters and coastal wetlands.</p>
Recommendations component / complementary indicators important for wetlands	<ul style="list-style-type: none"> • The list of component and complementary indicators for Goal A is extensive. Without guidance or any proposal for prioritisation for selecting component and complementary indicators for different purposes, there is a risk that the information submitted will be very fragmented and difficult to detect any regional or global patterns over time unless there is consistency in the choice of indicators being adopted and assessed across Parties. • The STRP supports the inclusion of global indicators as complementary indicators to measure the extent of inland waters and coastal wetland ecosystems and encourage the further development of such indicators for different wetland habitats including: <ul style="list-style-type: none"> ○ Peatland extent and condition (ID 946)

	<ul style="list-style-type: none"> ○ Trends in mangrove extent (ID 950) ○ Hard coral cover and composition (ID 952) ○ Global coral reef extent (ID 953) ○ Global seagrass extent (seagrass cover and composition) ((ID 954) ○ Global saltmarsh extent (ID 955) ○ Wetland Extent Trends Index (ID 960 note – this appears to be a duplicate of SDG 6.6.1 correctly named below) ○ Change in the extent of inland water ecosystems over time (ID 317 and the same as ID 960) ● The STRP also supports the inclusion of complementary indicators providing information on connectivity: <ul style="list-style-type: none"> ○ Continuous global mangrove forest cover (ID 948) ○ Trends in mangrove forest fragmentation (ID 949) ○ River Fragmentation Index (ID 973 – but question if this is the same as ID 949?) ○ Dendritic Connectivity Index ○ CMS Connectivity Indicator (ID 989) ○ Free flowing rivers (ID 949 and ID 1060 – may also be a replicate of ID 973) correctly referred to as the River connectivity status index ● The STRP notes the lack of component/ complementary indicators to help track the genetic diversity aspect of the goal.
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21. **Target 2:** *Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.*

Headline indicator	2.2 Area under restoration (under development)
Sufficiency of the indicator for wetlands	<p>The specific articulation of inland waters and coastal ecosystems (thus including coastal wetlands) in the language of Target 2 is welcomed. It is noted that the methodology and metadata are still in development.</p> <p>It is critical to ensure that inland waters and coastal wetlands can be recognised through appropriate disaggregation.</p> <p>The current headline indicator can only measure partial aspects of the target. There is no headline indicator for assessing progress in restoration outcomes. Filling this gap will be critical to track meaningful progress.</p> <p>It is recognised that the method for the headline indicator is being developed under the UN Decade of Restoration through the monitoring task force. The inclusion of a sub-task force for aquatic and transitional waters is welcomed in helping to ensure the suitability of this metric.</p> <p>It would help if information was provided regarding the methodology that is being developed by the UN Decade on Ecosystem Restoration monitoring task force, on the expected data flows and how the data will be processed, and if the intention is to achieve 30% for each of the identified ecosystem types and whether this will be needed at a national, regional or global scale?</p>
Recommendation on headline indicator metadata	<p>To ensure the visibility of wetlands data in this indicator, disaggregation is required by ecosystem type (including Inland water/ coastal ecosystems).</p> <p>In order to be able to capture progress in the restoration of rivers, the STRP recommends the indicator method should provide for measuring in length (km) as well as by area.</p>

<p>Recommendations on data flows / sources to fill the gap</p>	<p>The two component indicators that are identified could help address the gap in understanding restoration outcomes but are not yet defined. Recommendations for operationalising these indicators from an inland/ coastal perspective are provided:</p> <p>Extent of natural ecosystems by type (ID 323)</p> <ul style="list-style-type: none"> • Freshwater Ecosystem Explorer platform which provides data on wetland quantity, quality and flow data. • Global Mangrove Watch data could provide information that could be helpful as a complementary indicator to provide information on outcome. This can be disaggregated by country (already listed as a complementary indicator ID 950). <p>Maintenance and restoration of connectivity of natural ecosystems (ID 324)</p> <ul style="list-style-type: none"> • Restoring the connectivity of natural ecosystems would be a helpful component or complementary metric. It is viable to construct for rivers at a global or river basin scale. Guidance would be needed to help Parties, but this is feasible using the Free flowing rivers indicator (ID 1060) – correctly referred to as the River connectivity status index – <p>In addition the following could also provide valuable information flows:</p> <ul style="list-style-type: none"> • Freshwater health index. • The FAO assessment of global water stress on freshwater environments (SDG 6.4.2).
<p>Identification of future tools to fill gaps</p>	<ul style="list-style-type: none"> • Global Wetland Watch – would be able to help provide data on wetland extent that could help provide more information to support restoration outcomes for wetlands. This is in development by UNEP and DHI and is due to be available within a 2-year timeframe (by the end of 2025). The system will use the GET, look at wetland quantity/extent (not quality) and will capture real time/live data. It will integrate with the Freshwater Ecosystem Explorer. • The freshwater challenge – is a commitment of 45 countries to protect and restore freshwater ecosystems. The challenge intends to support the development of appropriate metrics that could help Parties deliver against multiple conventions reporting requirements for these ecosystems.
<p>Recommendations component / complementary indicators important for wetlands</p>	<p>The following complementary indicators listed in Decision 15/5 under Target 2 are important for inland waters and coastal wetlands as they can be disaggregated by ecosystem type.</p> <ul style="list-style-type: none"> • Status of Key Biodiversity Areas (ID 1064). • Red List of Ecosystems (ID 1067 and A.1). • Species habitat indicator (ID 1069) could be helpful if looked at in terms of species habitat range covered by area under restoration.

22. **Target 3:** *Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.*

<p>Headline indicator</p>	<p>3.1 Coverage of protected areas and other effective area-based conservation measures.</p>
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<p>Sufficiency of the indicator for wetlands</p>	<p>Indicator 3.1 is not sufficient to track progress towards achieving Target 3.</p> <ul style="list-style-type: none"> • The explicit recognition of “inland waters” and “coastal” ecosystems in the language of the target is welcomed for increasing visibility of these ecosystems. However, there is still poor coverage, particularly for freshwater ecosystems and rivers. • The headline indicator method requires some adaptation to be able to capture information relevant to the protection of rivers (which should be measured in length (km). A proposal to address this is made immediately below). • A critical and urgent gap to be filled is the inclusion of a metric for understanding the effectiveness of area-based management – both in terms of management effectiveness and biodiversity outcomes.
<p>Recommendations for metadata</p>	<ul style="list-style-type: none"> • The metadata for the headline indicator 3.1 indicates only marine/ terrestrial disaggregation, which is not sufficient. It is recommended to include disaggregation by inland waters and coastal wetlands.
<p>Recommendations on data flows/ sources to fill the gap</p>	<ul style="list-style-type: none"> • The STRP would strongly recommend a disaggregation that includes inland waters and coastal ecosystems and support disaggregation, for example by applying the Global Ecosystem Typology, where appropriate for wetlands. • To address the gap in measuring effectiveness, the STRP supports the proposal by UNEP-WCMC, IUCN and JNCC on “Recommended indicators for reporting on the effectiveness of area-based conservation measures”, which includes the consideration of management, governance and biodiversity outcomes. • The STRP generally supports the method developed by Confluvio Ltd for TNC to assess the extent and representativeness of inland waters within protected areas and OECMS has been developed, including for river systems, that drew on the WDPA and WD-OECM layers and existing spatial global datasets (the Global Lakes and Wetlands Database – GLWDv2; and the RiverATLAS Database); noting that this approach should also be able to fit within other ecosystem typologies, such as the Global Ecosystem Typology framework.
<p>Identification of future tools to fill gaps</p>	<p>The STRP of the Convention on Wetlands has a high priority task (task 4.1) in the 2023-2025 workplan to guide Contracting Parties in the opportunities provided by OECMs for wetlands and will have a published Briefing Note to share on this in future.</p>
<p>Recommendations component / complementary indicators important for wetlands</p>	<p>Regarding the current list of component indicators identified in Decision 15/5, the STRP would recommend that any guidance identifies the following component indicators already listed under Target 3 as being particularly important for inland waters and coastal wetlands:</p> <ul style="list-style-type: none"> • Protected area coverage of key biodiversity areas (ID 325) • Red List of Ecosystems (caveat that it should be used with protected area coverage and disaggregation of inland waters and marine and coastal as covered by the Convention on Wetlands definition of wetlands) (ID 329) • Connectivity Indicator (ID 330) • Protected Area Management Effectiveness (PAME) (ID 326) – noting that this needs to go beyond the presence of an assessment methodology, ensuring that management effectiveness is assessed and reported adequately, to provide an assessment of conservation outcomes. <p>The STRP welcomes the inclusion of the <i>Ramsar Management Effectiveness Tracking Tool (R-METT)</i> as a complementary indicator. In addition, the following</p>

	<p>complementary indicators listed in Decision 15/5 under Target 3 are important for inland waters and coastal wetlands as they can be disaggregated by ecosystem type.</p> <ul style="list-style-type: none"> • IUCN Green List of Protected and Conserved Areas (ID 1072) • Extent to which protected areas and other effective area-based conservation measures cover key biodiversity areas that are important for migratory species (ID 1077). • Red List of Ecosystems (again, with the caveat that it should be used with Protected Area coverage disaggregated by inland waters and marine and coastal wetlands as covered by the Convention on Wetlands definition of wetlands) (ID 1084 – noting this is listed multiple times and has multiple ID numbers).
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23. **Target 5:** *Ensure that the use, harvesting and trade of wild species is sustainable, safe and legal, preventing overexploitation, minimizing impacts on non-target species and ecosystems, and reducing the risk of pathogen spill-over, applying the ecosystem approach, while respecting and protecting customary sustainable use by indigenous peoples and local communities.*

Headline indicator	5.1 Proportion of fish stocks within biologically sustainable levels
Sufficiency of the indicator for wetlands	<p>Indicator 5.1 is not sufficient to track progress towards achieving Target 5. There are significant gaps to be able to track progress against this target using the currently identified headline indicator 5.1, particularly for inland fisheries.</p> <p>In reviewing the metadata, this indicator is only capable of tracking progress for selected marine fishery resources leaving a gap for tracking many components of this target. Indicator 5.1 takes no account of harvesting and trade of fish within inland fisheries nor the harvesting of any other types of animal and plant target or non-target species and is therefore entirely insufficient for inland waters and coastal wetlands. Inland fisheries alone represent around 12% of total global fisheries production.</p>
Recommendations for metadata	The current disaggregation of this headline indicator bears no relevance to inland waters as they are entirely excluded.
Recommendations on data flows / sources to fill the gap	<ul style="list-style-type: none"> • The STRP support inclusion of an indicator for assessing threats to inland fisheries as proposed by the Food and Agriculture Organization of the United Nations (FAO) and the United States Geological Survey (USGS), and recommends this is reviewed by the AHETG as a measure to address the gap for inland waters. • The Convention on Wetlands has published a wetland disease manual, that provides guidance for the assessment, monitoring and management of a monitoring framework to support understanding health management in inland waters and coastal wetlands that could contribute to future complementary or component indicators in respect of the sustainable management of fisheries. • At a regional scale it is noted that under the EU Habitats Directive, EU Member States are required to report against Annex V species (i.e. animal and plant species whose taking in the wild and exploitation may be subject to management measures) and includes fish species. This could be a helpful source of information to inform this indicator for these countries.

Identification of future tools to fill gaps	No additional information
Recommendations component / complementary indicators important for wetlands	<p>Regarding the existing list of component indicators identified in Decision 15/5, the STRP would recommend that any guidance flag the “<i>Red List Index for used species</i>” as particularly helpful for addressing some of the identified gaps for use from the context of inland waters and coastal wetlands and could be used relatively easily, recognising there are still limitations in the species groups currently included.</p> <p>Of the listed complementary indicators, the following are recommended as being useful for inland waters and coastal wetlands:</p> <ul style="list-style-type: none"> • Sustainable watershed and inland fisheries index (ID 1093) • Red List Index (for internationally traded species and for migratory species) (ID 1094) • Illegal trade by CITES species classification (ID 1100) • Impacts of fisheries and hunting on migratory species and their habitats (ID 1103) • Number of MSC Chain of Custody Certification holders by distribution country (ID 1104)

24. **Target 7:** *Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution.*

Headline indicator	<p>7.1 index of coastal eutrophication potential.</p> <p>7.2 pesticide environment concentration.</p>
Sufficiency of the indicators for wetlands	<p>Headline indicator 7.1:</p> <p>Indicator 7.1 is not sufficient to track progress towards achieving Target 7.</p> <ul style="list-style-type: none"> • There is a gap in relation to eutrophication of inland water ecosystems, including lakes. There are several existing indicators identified below that could help fill this gap. • The Index of coastal eutrophication potential focuses on nutrient overload in coastal regions and depends partially on information relating to riverine input. This is not sufficient for inland waters, or coastal environments where there are no rivers (e.g. atolls). Whilst the calculation depends on riverine input information, it does not deliver information concerning nutrient pollution for rivers or streams. <p>The issue of sedimentation is entirely absent from the KMGBF and its monitoring framework and represents an important gap. Wetlands depend on sedimentation processes, however high inputs of sediment can have detrimental impacts, particularly where these sediments are contaminated with nutrients and other chemical compounds.</p>

	Another gap in the sufficiency of indicators to track progress of Target 7 (and of particular importance to wetlands) are the other <i>highly hazardous</i> chemicals – including but not limited to pharmaceutical products, per- and polyfluorinated alkyl substances (PFAS or forever chemicals), heavy metals and polyaromatic hydrocarbons.
Recommendation relating to metadata	Headline indicator 7.2: <ul style="list-style-type: none"> The STRP supports the disaggregation proposed in the metadata, recognising that groundwater is important for many wetlands.
Recommendations on data flows / sources to fill the gap	Lake water turbidity and Trophic State Index (Freshwater Explorer relating to SDG 6.6.1) provides information on eutrophication status of lakes and could help to partially fill one of the gaps for headline indicator 7.1.
Identification of future tools to fill gaps	No additional information
Recommendations component / complementary indicators important for wetlands	The existing list of component and complementary indicators are not felt to be sufficient for inland waters and coastal wetlands. Of those indicated <ul style="list-style-type: none"> Fertilizer use – is included as a component indicator and is highly relevant for inland waters and coastal wetlands (ID 344), but no metadata is provided. It would be helpful to clarify which indicator this is based on. FAOSTAT provide data relating to the use of inorganic fertilizer. <p>The STRP recommends the inclusion of additional metrics for inland waters including:</p> <ul style="list-style-type: none"> Proportion of bodies of water with good ambient water quality (existing component indicator for Target 11, ID 360 and SDG indicator 6.3.2)

25. **Target 9:** *Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.*

Headline indicators	9.1 Benefits from the sustainable use of wild species.* 9.2 Percentage of the population in traditional occupations* (no metadata available).
Sufficiency of the indicator for wetlands	The wise use of wetlands is one of the pillars to the Convention on Wetlands, including the use of wild species. It is noted that both headline indicators are still in development. Headline indicator 9.1: <ul style="list-style-type: none"> As this indicator is based on the SEEA Environmental Accounting methodology, it depends on inputs from national reporting. Clear guidance will be needed to ensure submission of national information that allows for information by ecosystem type, including for freshwater, marine and coastal species.

	<ul style="list-style-type: none"> • There is a potential challenge in being able to assess sustainable management and use across all wild species in any particular area, for example there may be conflicting evidence for different species in a particular area, and a question as to how this will be dealt with. • There is a question as to how critically endangered species (as established by IUCN Red List assessments) will be considered in the reporting against headline indicator 9.1. <p>Headline indicator 9.2:</p> <ul style="list-style-type: none"> • The STRP notes that it is a significant assumption to assume that people in traditional occupations are conducting these in a sustainable way. It is recommended that a definition for “sustainable traditional occupations” is included in the metadata, when it is developed.
Recommendations related to metadata	The STRP welcomes the ability to disaggregate this indicator by ecosystem type, and note any guidance should provide more information to make clear this should include freshwater/ coastal and marine species, so that these different elements can be tracked.
Recommendations on data flows / sources to fill the gap	No additional information
Identification of future tools to fill gaps	<p>Progress in developing metrics to track progress against this target is of great interest to the Convention on Wetlands and it will be following these developments closely.</p> <p>The STRP is also aware that there is work being undertaken on understanding the sustainable use and management of freshwater fish by the International Water Management Institute that may be able to support measuring progress against this target in future.</p>
Recommendations component/ complementary indicators important for wetlands	<p>Regarding the current list of component indicators identified in Decision 15/5, the STRP would recommend that any guidance flag the following component indicators already listed as important for capturing information related to inland waters and coastal wetlands:</p> <ul style="list-style-type: none"> • Red List Index (species used for food and medicine) (ID 353) could be used relatively easily – recognising there are limitations in the species groups currently included.

26. **Target 10:** *Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches contributing to the resilience and long-term efficiency and productivity of these production systems and to food security, conserving and restoring biodiversity and maintaining nature’s contributions to people, including ecosystem functions and services.*

Headline indicator	10.1 Proportion of agricultural area under productive and sustainable agriculture.
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	10.2 Progress towards sustainable forest management.
Sufficiency of the indicator for wetlands	<p>Unsustainable agriculture and conversion of wetlands into agricultural is one of the main drivers of change for wetlands. The priority interest for the Convention on Wetlands with respect to Target 10 is to understand the change in the proportion of areas under agriculture, aquaculture and forestry in relation to inland waters and coastal wetlands. The following comments relate to headline indicator 10.1.</p> <p>We propose that the use of component and complementary indicators already listed for other targets could fill gaps in tracking the sustainability of these activities.</p>
Recommendations related to metadata	The definition of sustainable agriculture set out in part 4 of the metadata for 10.1 is helpful, however the scope of this indicator (see section 5a) excludes holdings that are exclusively on aquaculture, and food harvested from the wild (i.e. fisheries), meaning there are significant gaps in the sufficiency for inland waters and coastal wetlands.
Recommendations on data flows / sources to fill the gap	<p>The Convention on Wetlands has published the following on the issue:</p> <ul style="list-style-type: none"> • Policy Brief 6 (2021): transforming agriculture to sustain people and wetlands identifies priority actions across sectors to increase the sustainability of agriculture and promote the wise use of wetlands. • Briefing note 13 (2022): Wetlands and agriculture: impacts of farming practices and pathways to sustainability. <p>Coastal habitat mapping: mangrove and pond aquaculture conversion (Clark Labs) providing an inventory from 1999-2022 for pond aquaculture conversion and covering the majority of the big aquaculture producers.</p>
Identification of future tools to fill gaps	<p>Proposed future indicator: Trends in the area of inland waters and coastal wetlands converted to agriculture.</p> <p>Global Wetlands Watch is expected to be online by the end of 2025 and use the IUCN Global Ecosystem Typology (GET). Using data on extent of wetlands mapped against agricultural and forestry, could help show conversion of wetlands into agriculture and forestry.</p>
Recommendations component / complementary indicators important for wetlands	<p>The current list of component and complementary indicators is weak in relation to inland waters and coastal wetland systems.</p> <p>The following indicators are proposed within the monitoring framework and could be helpful to validate the sustainability of agriculture (including downstream impacts on inland waters and coastal wetlands):</p> <ul style="list-style-type: none"> • Trends in fertilizer use (already included as a component indicator under Target 7, ID 344) – available from FAOSTAT. • Pesticide use per area of cropland (already included as a complementary indicator under Target 7; ID 1118) – available from FAOSTAT. • Level of water stress listed as (Target 11 Component indicator -ID 361; Goal B complementary indicator ID 1006) from AQUASTAT. • Water abstraction by sector (agriculture) from AQUASTAT. <p>In addition, the following indicator could be developed into a suitable complementary indicator:</p>

	<ul style="list-style-type: none"> • Tonnes of aquaculture production could be useful to include (e.g. from the FAO State of the world fisheries and aquaculture), particularly with the anticipated rapid growth in aquaculture production.
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27. **Target 11:** *Restore, maintain and enhance nature’s contributions to people, including ecosystem functions and services, such as regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.*

Headline indicator	B.1 Services provided by ecosystems.*
Sufficiency of the indicator for wetlands	<p>The SEEA EA methodology, on which the headline indicator is based, depends on the information that is reported by Parties. For inland waters and coastal wetlands to be visible the guidance to Parties must underline the importance of reporting ecosystem services that are provided by inland waters and coastal wetlands, including: water related services, disaster risk reduction services (e.g. flood protection; coastal protection) and cultural ecosystem services.</p> <p>It is noted that the current headline indicator will not help measuring all aspects of the target. There is a need to track how well actions to deliver this target are recognising the need to strengthen (restore, maintain, enhance) biodiversity as a high priority of this target as this is what underpins nature’s contribution to people.</p> <p>When looking across Targets 11, 10 and 3, the STRP has noted there are potential competing interests and potential trade-offs that warrant attention (see also Neugarten et al., 2024).</p>
Recommendations related to metadata	<ul style="list-style-type: none"> • The ability to disaggregate by ecosystem type is welcomed. It is also suggested that it would be helpful to disaggregate by natural/ constructed wetland ecosystems.
Recommendations on data flows / sources to fill the gap	<ul style="list-style-type: none"> • It is proposed that the “Extent of natural ecosystems” (A.2 headline indicator) is used as a component indicator for T11, to support measuring progress against this target, to help ensure that natural systems are not being undermined at the expense of constructed ecosystems (for example where constructed wetlands may be used as NBS but may not have high biodiversity value).
Identification of future tools to fill gaps	<ul style="list-style-type: none"> • There have been assessments on disaster risk reduction services provided by inland and coastal wetlands, including by the World Bank that may be helpful. • The Convention on Wetlands has identified the accounting of the extent/ effectiveness of Nature Based Solutions or Ecosystem Based Approaches as a future data gap that will be important to be able to track the positive developments of NBS/EBA. • UNDP has started to develop a Nature Based solution database that could inform this development.
Recommendations component / complementary indicators important for wetlands	<ul style="list-style-type: none"> • The Global Mangrove Watch has an ecosystem services data layer, which could be identified as a complementary indicator (not currently listed).

28. **Target 12:** *Significantly increase the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature and contributing to inclusive and sustainable urbanization and the provision of ecosystem functions and services.*

Headline indicator	12.1 Average share of the built-up area of cities that is green/blue space for public use for all.
Sufficiency of the indicator for wetlands	Indicator 12.1 is not sufficient to track progress towards achieving Target 12. The STRP notes a mismatch between the scope of the headline indicator and the ambition of the target. The headline indicator 12.1 focuses on the human use aspect and access. Whilst these are important elements, there is a gap in being able to understand progress towards the provision of ecosystem services relating to green/blue (including wetland) spaces in urban environments, even if people cannot access these locations directly.
Recommendations on data flows / sources to fill the gap	The STRP propose the following options for additional indicators that could help start to fill gaps: <ul style="list-style-type: none">Information from the headline indicator for Target 11 (B.1 Services provided by ecosystems) could help to fill this gap if it is possible to disaggregate by urban blue/green spaces. Existing and available indicators not yet included in the monitoring framework that would be useful include: <ul style="list-style-type: none">Number of cities accredited as Wetland Cities. The Wetland City Accreditation allows recognition of cities with Ramsar Sites. The scheme was adopted through Resolution XII.10 in 2015 and updated in 2022 through Resolution XIV.10. As of 2022, the Convention on Wetlands has recognized 25 cities for their efforts to safeguard urban wetlands for people and nature. Operational guidance for the accreditation was published in 2023.Coverage of protected areas and OECMs within urban environments could be a helpful starting point for mapping green/blue spaces.Presence of a policy on water sensitive urban design that includes consideration of drainage, barriers to fish movement etc.Presence of a policy on access to green/blue spaces.Presence of a policy on connectivity between urban green/blue spaces.
Identification of future tools to fill gaps	<ul style="list-style-type: none">There is potential to use remote sensing track changes in the percentage cover of green/blue space in an urban environment. It is recognised that due to pixel sizes it would be difficult to detect small, but valuable areas, such as pocket parks or native vs non-native biodiversity. This information would also be helpful for understanding potential heat reduction and pollination services, for example.
Recommendations component / complementary indicators important for wetlands	It would help to develop a list of component/ complementary indicators for Parties to draw on and you may wish to consider recommending the inclusion of some of those mentioned in the section above.