

# Convention on Wetlands Strategic Plan

Phase 2: Document review and research



Prepared for the  
Strategic Plan Working Group  
of the Convention on Wetlands



3/5/2024

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## Quality control

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# Contents

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<b>1</b>	<b>Context .....</b>	<b>1</b>
1.1	Background .....	1
1.2	Terms of reference.....	1
<b>2</b>	<b>Purpose of the document review and research .....</b>	<b>3</b>
2.1	Approach taken .....	3
2.2	Document review process.....	3
2.3	Consultation and engagement process .....	4
<b>3</b>	<b>Consultation and engagement .....</b>	<b>5</b>
3.1	Questionnaire survey .....	5
3.2	Virtual workshops.....	11
3.3	Other consultation .....	15
<b>4</b>	<b>Literature review .....</b>	<b>18</b>
4.1	State and change of state of wetlands .....	18
4.2	Addressing wetland degradation and loss.....	25
4.3	Implications for the 5 <sup>th</sup> Strategic Plan.....	26
<b>5</b>	<b>Implementation of the 4<sup>th</sup> Strategic Plan .....</b>	<b>27</b>
5.1	Background and context .....	27
5.2	Mid-term review on implementation of the 4 <sup>th</sup> Strategic Plan.....	27
5.3	Reporting by the Secretariat on the 4 <sup>th</sup> Strategic Plan implementation.....	28
5.4	Review of 4 <sup>th</sup> Strategic Plan indicators from National Reports to COP14 .....	29
5.5	Historical analyses of National Reports.....	36
5.6	Additional obligations since the drafting of the 4 <sup>th</sup> Strategic Plan .....	37
5.7	Implications for the 5 <sup>th</sup> Strategic Plan.....	38
<b>6</b>	<b>Synthesis .....</b>	<b>39</b>
6.1	Introduction .....	39
6.2	A changing policy landscape .....	39
6.3	Issues of convergence.....	40
6.4	Issues of divergence.....	41
6.5	Effectiveness of and opportunities for the Convention on Wetlands .....	42
<b>7</b>	<b>Recommendations for the 5<sup>th</sup> Strategic Plan .....</b>	<b>44</b>
7.1	The context of the Convention's Strategic Plans .....	44
7.2	Priorities.....	45
7.3	Recommendations for 5 <sup>th</sup> Strategic Plan.....	45

7.4	Structure of the 5 <sup>th</sup> Strategic Plan .....	46
8	References .....	47
	Appendix 1 - Online Questionnaire .....	52
	Appendix 2 - Resolutions: COP12, COP13 & COP14 .....	60

## Abbreviations

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AA	Administrative Authority
CBD	Convention on Biological Diversity
CEPA	Communications, capacity building, education, participation and awareness
COP	Conference of the Parties
CSO	Civil Society Organisations
GBF	Global Biodiversity Framework
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
IOP	International Organisation Partners
LAC	Latin America and the Caribbean
MEA	Multilateral Environment Agreement
NFP	National Focal Point
NGO	Non-Governmental Organisation
RRC	Ramsar Regional Centres
RRI	Ramsar Regional Initiatives
SC	Standing Committee
SP5	5 <sup>th</sup> Strategic Plan
SPWG	Strategic Plan Working Group
STRP	Scientific and Technical Review Panel
SWS	Society of Wetland Scientists
ToR	Terms of Reference

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# 1 Context

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## 1.1 Background

Adopted at the 12th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (COP12) in 2015, the 4th Strategic Plan provides the basis for the implementation of the Convention during the period 2016-2024. The vision for the 4th Strategic Plan is that “*wetlands are conserved, wisely used, restored and their benefits are recognized and valued by all*”.

Resolution XIII.5<sup>1</sup> urged Contracting Parties to continuously monitor their progress towards implementation of the Strategic Plan and to highlight any difficulties experienced in implementing the Plan. Resolution XIII.5 also set out the process for establishing a Strategic Plan Working Group (SPWG) to conduct a review of the 4<sup>th</sup> Strategic Plan. Subsequently, the Standing Committee (SC), through Decision SC59-20, established a Fifth Strategic Plan Working Group (SP5WG) with membership from Contracting Parties, the Scientific and Technical Review Panel (STRP) and International Organization Partners (IOPs), to commence preparation of the next Strategic Plan of the Convention on Wetlands. The overriding objective is to ensure that a new Strategic Plan is developed in a timely manner for adoption at COP15. A priority for the SP5WG is to develop a work plan and engagement programme for consultation to facilitate the development of the 5<sup>th</sup> Strategic Plan (SP5).

The SP5WG have scoped out a three-phase approach to the development of the SP5. The phases include an initial scoping and work planning task; a review of documents and further research; and, finally, development of the plan.

## 1.2 Terms of reference

The terms of reference (ToR) set out a phased approach to the consultancy services required to support the development of SP5. The work addressed in this report relate to Phase 2 Document review and research. The ToR have set out the following tasks (a to e):

a. Review existing information including but not limited to:

- the mid-term review of SP4 (inc. survey of parties);
- GWO 2018 and 2021;
- Global Implementation Report to COP13 and COP14;
- Post 2020 Global Biodiversity Framework (GBF) adopted at CBD COP15;
- Resolutions Policy briefs etc. since drafting of SP4 that create obligations for Parties
- Indicators Expert Working Group report (2015);
- strategic plans of IOP's;
- existing programs and partnerships (e.g.: Joint Work Plan Ramsar and CBD; RRI's etc)

b. Apply a regional lens to the review to identify priority conservation activities and capability requirements for developing Country Parties;

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<sup>1</sup> Convention on Wetlands (2018) *Resolution XIII.5 Review of the fourth Strategic Plan of the Ramsar Convention*. 13<sup>th</sup> Meeting of the Conference of the Parties to the Convention on Wetlands (Ramsar, Iran, 1971), Dubai, United Arab Emirates, 21-29 October 2018.

c. Identify the key policy focus areas for SP5 that align wetland conservation activities with the key global environmental priorities and outcomes (CBD; SDG's UNFCCC etc.) to 2030;

d. Identify options for a more tightly focused Plan, streamlining and integration rather than creating additional activity (e.g. CEPA; Gender) removing repetition and overlap;

e. Provide a report of the Policy review, summarising the analysis and findings, scoping the policy focus for SP5 and key elements (goals, targets and indicators) including feedback from stakeholder engagement.

The consultant will implement an iterative process to undertaking these tasks, seeking views and input of key stakeholders, consistent with the engagement and consultation strategy for SP5, and working closely with the Secretariat and Working Group.

Following discussions with the Co-Chairs of the SP5WG and the Chair of the STRP, it has been proposed that the contents and evidence presented in this document are used to inform and articulate the goals, targets and indicators. However, due to the opportunity to engage with the Panel at the 26<sup>th</sup> Meeting STRP and to ensure alignment with the work of the Panel and consultants, the goals, targets and indicators are not included in this report. A supplementary report shall be produced following the conclusion of STRP26.

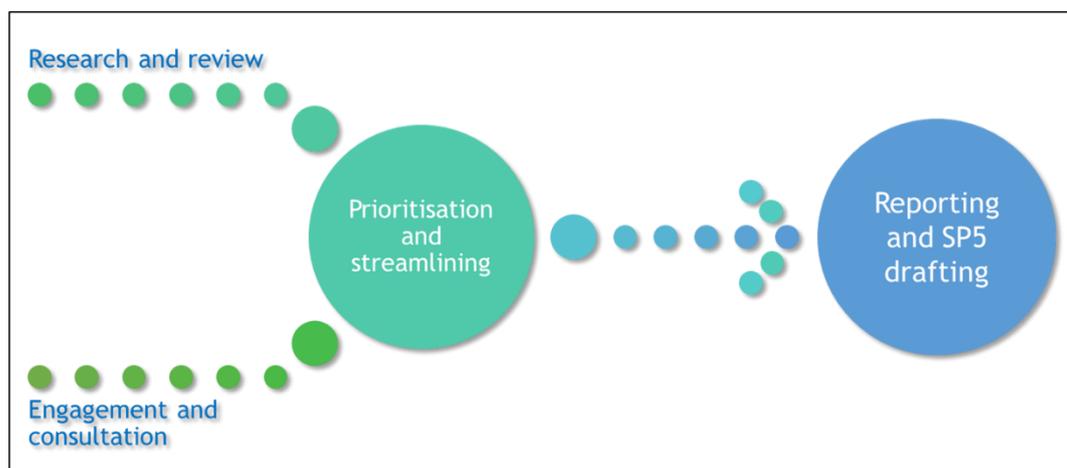
## 2 Purpose of the document review and research

### 2.1 Approach taken

The ToR request that a review is conducted of a range of information in order to identify priority conservation activities, and especially those that align with key global environmental priorities and outcomes to 2030. There should also be an iterative process to undertaking this review which seeks the views and input of key stakeholders, consistent with the engagement and consultation strategy for SP5, and working closely with the Secretariat and SP5WG. The approach taken to achieve this effectively involved the following two parallel workstreams:

- A review of key documentation to inform the conservation priorities and the challenges that wetlands face around the world; and
- Consultation and engagement with key stakeholders and partners to understand priorities, particularly at a regional scale, opportunities and capabilities.

These two workstreams remained iterative throughout the process and have coalesced in the contents of this report. Consequently, the Phase 2 report sets out recommendations based on the evidence produced from both a desk-based document review and the interactive engagement and consultation programme. The recommendations provided in this report are cognisant of ambition for SP5 to a tight document that is streamlined, avoids repetition and takes into account the reporting burden of Contracting Parties. The evidence base provided by this report will subsequent be used to articulate the overall structure and content of SP5 including the goals, targets and indicators (Figure 1).



**Figure 1.** The approach to the document review and research.

### 2.2 Document review process

The main objective of the document review was to synthesise existing information in order to capture the headline issues regarding the state of wetlands across the world and the priority conservation activities. Key issues investigated include spatial and temporal analysis of rates of wetland loss, the state of the world's remaining wetlands, global and regional drivers of wetland degradation, global environmental priorities and the effectiveness of the Convention on Wetlands at delivering on the conservation and wise use of wetlands. The intention is to provide a robust audit trail on the state of wetlands, trend in state of wetlands and to assist in understanding what

drives the state and change of state of wetlands at a range of scales. Through this understanding, it is possible to evaluate the Convention processes and how they contribute to the outcome of the conservation and wise use of wetlands and how wetland conservation priorities align with other global processes. From this understanding, recommendations have been provided to assist in shaping the SP5.

## 2.3 Consultation and engagement process

The objective of the consultation and engagement with partners and stakeholders was to ensure that SP5 is built on the basis of a broad participation process of all social and institutional actors with an impact on wetland ecosystems, so that the targets, priorities and strategic actions for the conservation, management and wise use wetlands are embedded in SP5. Further details on the approach to consultation and engagement are provided in the Engagement and Consultation Strategy<sup>2</sup>.

### *Phase 1 activities*

Several activities were conducted to provide engagement and consultation opportunities for a diversity of stakeholders and partners. During Phase 1, the opportunity was taken to engage with a variety of stakeholders and partners during the 14th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (COP14) in November 2022. Activities conducted included:

- Use of a daily discussion board for delegates to provide comment on key questions;
- Postcards for delegates to write comments on to provide responses to key questions;
- Attendance by the consultants at Regional Meetings to gather views, ideas and information;
- Participation in side events to highlight the SP5 development process and understand key conservation challenges and opportunities; and
- Informal face-to-face discussion with delegates.

One of the key messages that arose from a simple analysis of the discussion board comments was the need to address the lack of capacity available to deliver on the wise use of wetlands. This message and the broader feedback received at COP14<sup>3</sup> was used to inform the development and implementation of the document review and related engagement and consultation activities.

### *Phase 2 activities*

In developing the evidence base contained in this report, and to provide an iterative cross-check with information derived from documented sources, it has been necessary to conduct several engagement and consultation activities. The activities include:

- Attendance and participation in SP5WG meetings;
- Attendance and participation in SC62;
- Dissemination and evaluation of an on-line questionnaire survey;
- Attendance at wetland-related conferences, workshops and meetings; and
- Organisation and delivery of regional virtual workshops for a range of stakeholders and partners.

The details and outcomes of these activities are reported in subsequent sections of this report.

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<sup>2</sup> Available at <https://www.ramsar.org/about/convention-wetlands-and-its-mission/strategic-plan/fifth-strategic-plan>

<sup>3</sup> RM Wetlands & Environment Ltd (2022) *Ramsar Strategic Plan – Preliminary scoping and work planning*. Unpublished report to the 5<sup>th</sup> Strategic Plan Working Group, December 2022. 20pp.

## 3 Consultation and engagement

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### KEY MESSAGES

- The questionnaire survey reported conservation management measures, local community awareness and cultural values / traditions as the most positive drivers of good ecological condition for wetlands.
- The survey reported that the main negative drivers of wetland state to be urban / industrial pollution, industrial development / infrastructure and urban development / infrastructure.
- The survey demonstrated that subtle differences in both the drivers of wetland degradation and loss and the most effective solutions across the regions.
- The survey also suggests that different drivers and threats apply to the lower income countries in comparison to countries of relatively higher income status.
- Ad hoc engagement at wetland meetings demonstrated the potential for consultation bias.
- The workshops broadly agreed with the drivers and solutions reported by the survey.
- The workshops also emphasised the importance of agriculture and climate change as drivers of wetland degradation and loss.
- There was a low level of engagement with the workshops by National Focal Points.

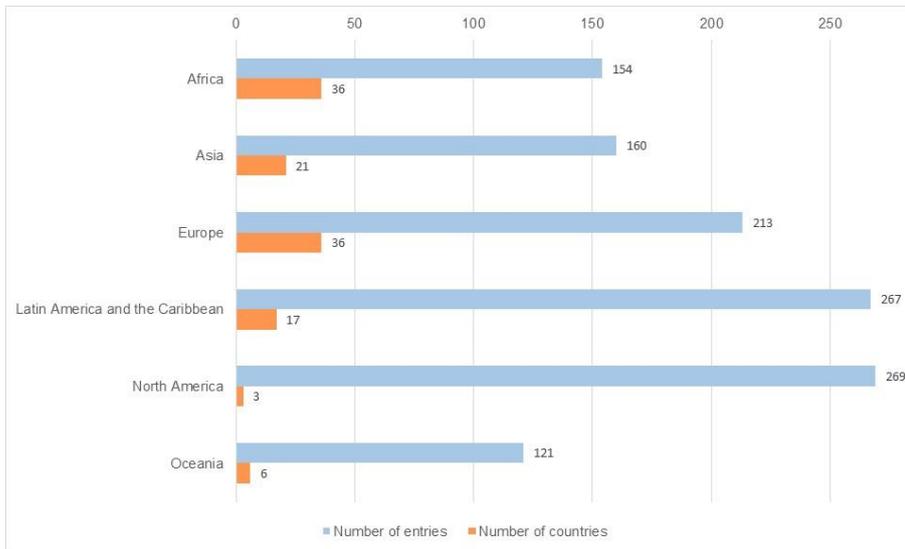
### 3.1 Questionnaire survey

#### *Approach*

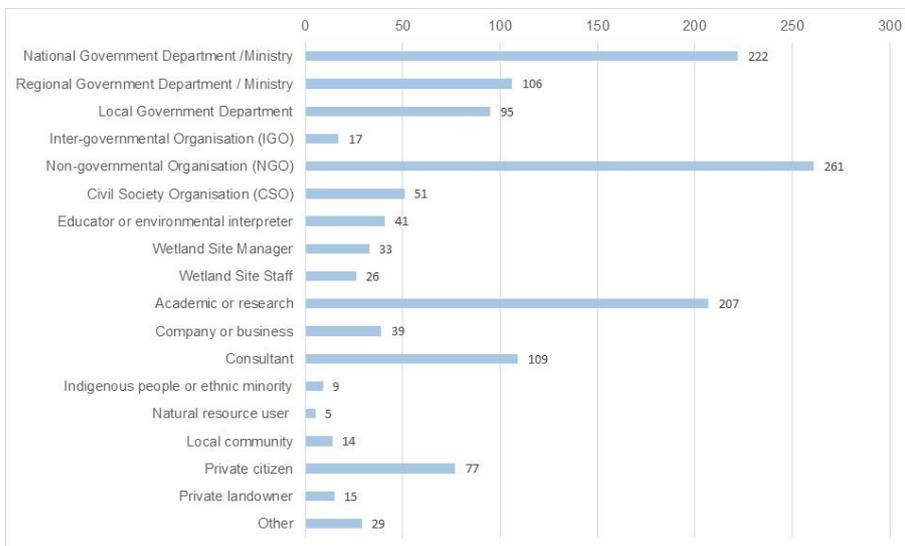
An online questionnaire was made available via the Convention's website. The survey was posted in three Convention languages (French, Spanish and English) as well as in Arabic, Chinese, Japanese and German. The questionnaire was open for respondents between late August 2023 and early October 2023 (for a total period of six weeks). The link to the questionnaire was circulated to numerous organisations and distribution channels. A full copy of the questionnaire is provided in Appendix 1.

1380 responses were received, of which 1356 contained usable information. Responses were received from 119 different countries and from all six of the Convention's regions (Figure 2). As a percentage of countries that are Contracting Parties to the Convention, responses were received from approximately 68% of all countries. The most responses were received from North America (n=269) and Latin America & the Caribbean (n=267). Overall, the responses provided a reasonable global and national distribution.

Of the individual respondents, 87% identified themselves and representing regional, national or local views, with 13% indicating that their responses were from a global perspective. Approximately 82% of respondents identified as being actively involved in wetland conservation and wise use and 93% were aware how their actions impacted on wetlands. The respondents represented a cross-section of organisation, with almost 60% being either from government bodies or non-governmental organisations (NGOs) (Figure 3). Responses were also received from a variety of affiliations including wetland site managers, academics, private citizens, consultants and Indigenous People.

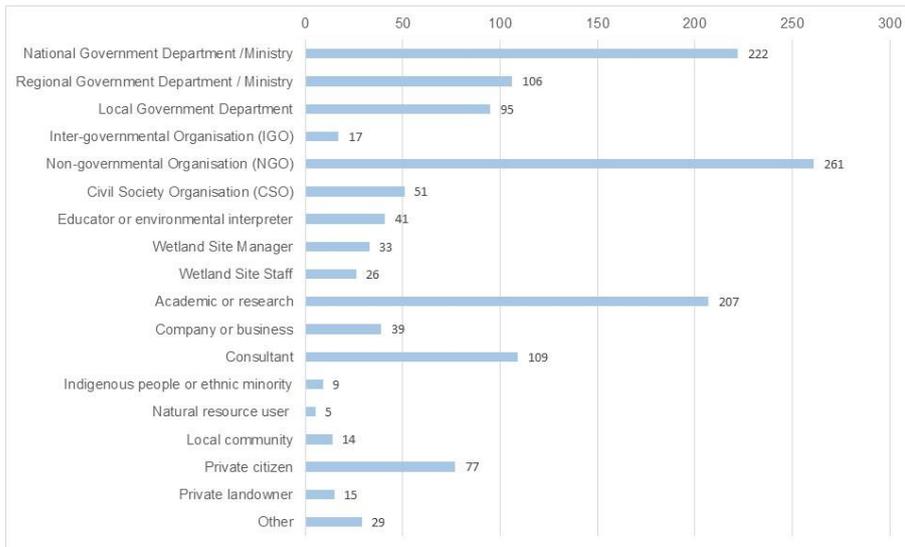


**Figure 2.** Global distribution of questionnaire responses.



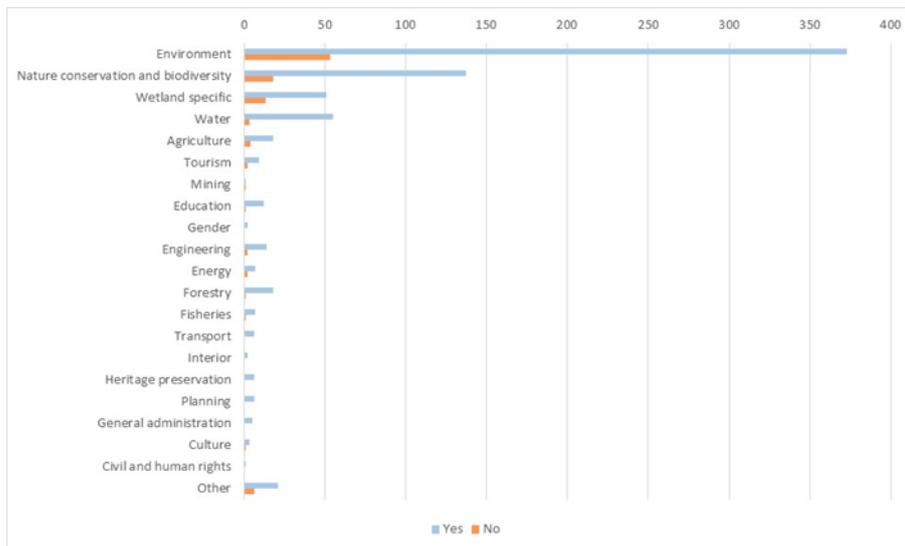
**Figure 3.** Respondents' organisational affiliation.

majority of respondents, irrespective of their organisation, were from the environment, nature conservation or wetland sectors (Figure 4). Of which the majority of the respondents were actively involved in the conservation and wise use of wetlands (Figure 5).



**Figure 4.** Roles of respondents.

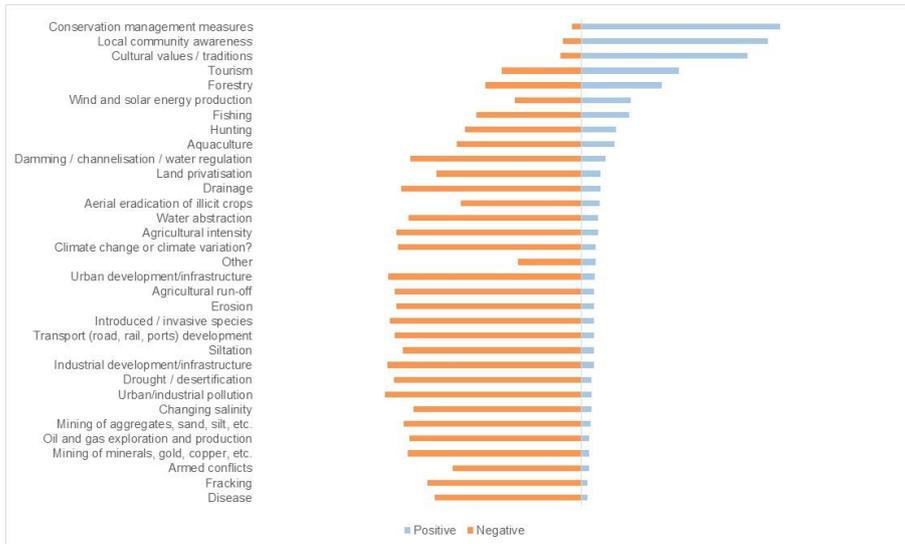
Analysis on a global level indicated the differences among positive and negative drivers of the state of wetlands (Figure 6). The main positive drivers reported were conservation management measures, local community awareness and cultural values / traditions. The main negative drivers were reported to be urban / industrial pollution, industrial development / infrastructure and urban development / infrastructure. However, there were many negative drivers reported at a similar magnitude (Figure 6).



**Figure 5.** Sector affiliation of respondents.

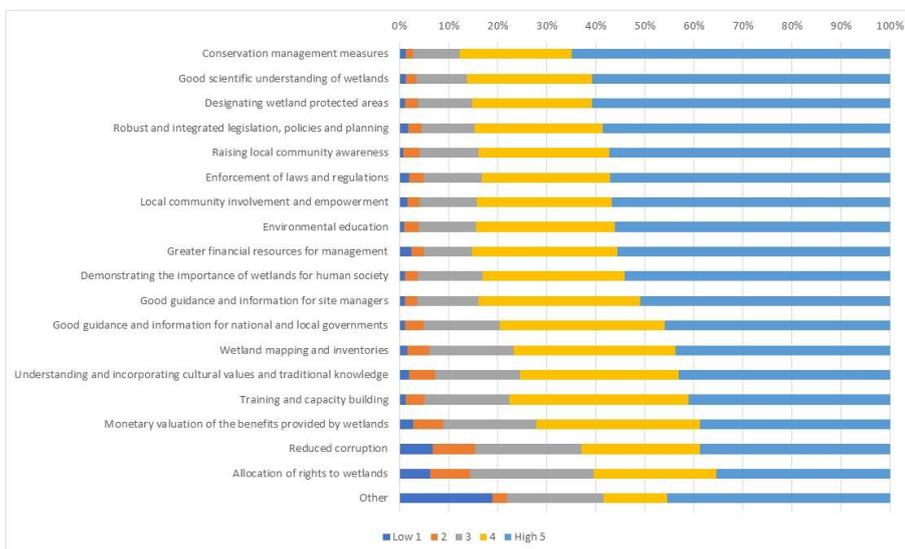
Respondents were asked to rank the importance of a range of potential solutions for addressing the drivers of wetland degradation and loss from low to high. Globally, the most effective solutions reported were conservation management measures, good scientific understanding of wetlands,

designating wetland protected areas, robust and integrated legislation, policies and planning, and raising local community awareness (Figure 7).



**Figure 6.** Global drivers of wetland state.

Differences are observed in the negative drivers of wetland state from region to region (Table 1). In Africa and Latin America and the Caribbean the main drivers of wetland degradation and loss were reported to be related to urbanization and industrial/infrastructure development. Whereas in North America and Oceania invasive species were a larger concern. In Europe, concerns regarding drought were highlighted, potentially relating to water stresses related to climate change.



**Figure 7.** Global reporting on solutions to wetland degradation and loss.

**Table 1.** Regional analysis of three most frequently reported negative drivers of wetland state.

Global	Africa	Asia	Europe	Latin America & the Caribbean	North America	Oceania
Urban / industrial pollution	Urban / industrial pollution	Urban / industrial pollution	Urban / industrial pollution	Urban / industrial pollution	Introduced / invasive species	Introduced / invasive species
Industrial development / infrastructure	Industrial development / infrastructure	Climate change or climate variation	Drought / desertification	Industrial development / infrastructure	Industrial development / infrastructure	Agricultural runoff
Urban development / infrastructure	Urban development / infrastructure	Introduced / invasive species	Introduced / invasive species	Urban development / infrastructure	Urban development / infrastructure	Urban / industrial pollution

**Table 2.** Regional analysis of the five most frequently reported solutions to wetland degradation and loss.

Global	Africa	Asia	Europe	Latin America & the Caribbean	North America	Oceania
Conservation management measures	Conservation management measures	Raising local community awareness	Conservation management measures	Local community involvement and empowerment	Designating wetland protected areas	Robust and integrated legislation, policies and planning
Good scientific understanding of wetlands	Local community involvement and empowerment	Conservation management measures	Robust and integrated legislation, policies and planning	Good scientific understanding of wetlands	Conservation management measures	Good scientific understanding of wetlands
Designating wetland protected areas	Raising local community awareness	Designating wetland protected areas	Good scientific understanding of wetlands	Raising local community awareness	Good scientific understanding of wetlands	Greater financial resources for management
Robust and integrated legislation, policies and planning	Designating wetland protected areas	Environmental education	Designating wetland protected areas	Conservation management measures	Enforcement of laws and regulations	Designating wetland protected areas
Raising local community awareness	Robust and integrated legislation, policies and planning	Demonstrating the importance of wetlands for human society	Enforcement of laws and regulations	Environmental education	Robust and integrated legislation, policies and planning	Conservation management measures

Regional differences are also observed in the assessment of solutions or interventions that most strongly positively influence the conservation and wise use of wetlands (Table 2). The use of conservation management measures feature highly for all regions. With the exception of Latin America & the Caribbean, designating wetland protected areas is reported to be a highly effective solution. Local community involvement and empowerment are reported to be more positive in Africa and Latin America & the Caribbean. Good scientific understanding is reported to drive positive outcomes in all regions except Africa and Asia. Greater financial resources for management was only reported as being of relatively high importance in Oceania.

The responses have also been assessed on a regional level and also by the categorisation of countries under the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) categories. When grouped by economic status there is little difference in the reported negative drivers with the exception of invasive species being the most frequently reported negative driver in upper income countries. Irrespective of economic

status, urbanization, industrial or infrastructure development are reported as the most significant drivers of wetland degradation and loss.

Conservation management measures were reported as being a solution that most strongly positively influences wetland wise use and conservation for all countries irrespective of their economic status (Table 3). Good scientific understanding was reported as being important for all countries except those categorised as being least developed. The least developed countries reported local empowerment, raising local awareness and demonstrating the importance of wetlands to human society as being the most effective solutions. The importance of designation, legislation, policies, planning and enforcement were reported as being the most effective solutions in upper income countries.

**Table 3.** Economic categorisation analysis of the five most frequently reported solutions to wetland degradation and loss. (Note: No countries were classified as being ‘Low income countries’).

Global	Least Developed Countries	Low Income Countries	Lower Middle Income Countries and Territories	Upper Middle Income Countries and Territories	Upper Income Countries
Conservation management measures	Raising local community awareness		Conservation management measures	Conservation management measures	Designating wetland protected areas
Good scientific understanding of wetlands	Local involvement and empowerment		Robust and integrated legislation, policies and planning	Local community involvement and empowerment	Conservation management measures
Designating wetland protected areas	Conservation management measures		Raising local community awareness	Environmental education	Robust and integrated legislation, policies and planning
Robust and integrated legislation, policies and planning	Demonstrating the importance of wetlands for human society		Local community involvement and empowerment	Raising local community awareness	Good scientific understanding of wetlands
Raising local community awareness	Designating wetland protected areas		Good scientific understanding of wetlands	Good scientific understanding of wetlands	Enforcement of laws and regulations

### *Utility of the questionnaire results*

The number of responses (1356) was considered to be very positive and greatly exceeds the number of responses received by recent citizen science surveys (McInnes et al. (2020) received 600 responses and Simpson et al. (2021) received 522 useable responses). The breadth of responses in terms of regions, countries, sectors, organisations and economic status was considered to be representative of a broad set of views upon which to assist with understanding the priority issues at both the global and regional levels.

It is not possible to assess the respondents and their level of understand or knowledge. All of the results need to be considered as ‘reported’ rather than necessarily underpinned by empirical evidence. Any assessment or project can rely on a suite of methods and data sources to improve the overall understanding of an issue (Kosmala et al., 2016). The questionnaire survey effectively provides ‘citizen science’ or participatory knowledge that contributes to the overall evidence based being constructed to inform the development of SP5.

The results of the questionnaire survey were used to inform the agenda and discussion undertaken at virtual workshops. The virtual workshops were used to challenge and verify the questionnaire outputs at the global and regional scales.

## 3.2 Virtual workshops

### *Approach*

Workshops were established on a regional and global basis. Invitations were sent in the three Convention languages to all National Focal Points. Invitations to attend were also sent a range of stakeholders and partners including *inter alia* from local government, Ramsar Regional Initiatives and Centres, IOPs, NGOs, Civil Society Organisations, academics and consultants. A consultant was assigned to coordinate activities in each region.

Each workshop followed the same format. Participants were asked to evaluate the findings of the questionnaire survey and to provide input on drivers of wetland degradation and loss, solutions to achieve wise use, possible delivery mechanisms, targets and indicators. A total of 25 virtual workshops were held involving over 140 hundred participants. Some workshops were very well attended whereas others were either poorly attended or had to be cancelled as no participants attended.

### *Results*

Information was gathered on the drivers, solutions and their delivery mechanisms, targets and indicators. The focus of the results presented hereon is on the drivers and solutions. The information on the targets and indicators will be used to help shape these elements in the draft SP5.

### *Africa workshops*

Workshops were held with NFPs, other government departments, CSOs and NGOs. Workshops were held in French and English. There was a low level of engagement and participation from NFPs with only three (less than 6%) of Contracting Parties attending the workshops. The low level of NFP engagement potentially impacted the attendance of other government departments and stakeholders as invitations may not have been passed on. It was suggested that there is a need for the Convention to understand the regional difference that exist between global north and the global south and to develop appropriate approaches to reflect these differences, rather than to replicate from the north to south. The role of Ramsar Regional Initiatives could be expanded to include assisting with accessing funding for site management activities. National Administration Authorities should improve their approach to disseminating information developed through the Convention to key stakeholders.

**Drivers:** Overall, there was a general consensus among the NFPs that the key drivers identified by the questionnaire survey were all relevant. However, the CSOs expressed a concern that agriculture, particularly intensification, pollution and water demand, was not reported as being more significant. Agriculture was also raised as an issue by other stakeholders. Climate change was highlighted by several participants as being a key driver behind changes in wetland ecological character, especially where it drives droughts, salinization and extreme weather events. Corruption, especially linked to urban development, was identified as a concern. The weak collaboration among ministries, local authorities and wetland managers and a lack of funding availability were observed as being drivers of wetland degradation.

**Solutions:** There was overall support for the solutions identified through the questionnaire survey. The NFPs also suggested the involvement of Ramsar Regional Initiatives in knowledge sharing. The CSOs agreed with the results of the questionnaire but also felt that there were many other solutions that had a role to play including delivering robust wetland restoration programmes, sharing data, development of educational and monitoring programmes (using local stakeholders), building capacity among local wetland managers especially in the urban environment.

#### Asia workshops

Workshops were held with NFPs, IOPs, CSOs, NGOs, Ramsar Regional Centres and academics. Government engagement was limited (less than 15% of Contracting Parties participated). However, there was good representation from the Ramsar Regional Centre-East Asia and an IOP (the International Water Management Institute).

**Drivers:** Overall, there was strong agreement on the role of climate change and urban-industrial pollutions as drivers of wetland degradation. There was, however, a lower level of agreement regarding the importance of invasive species as a driver of wetland degradation and loss. Other drivers that were raised in the workshops as being important within the Asian context were agricultural intensification, lack of political will and enforcement frameworks, out-dated policies and lack of strategic land use and water planning.

**Solutions:** There was fairly robust agreement on the solutions especially with regards to raising local community awareness, environmental education designating protected areas and implementing sound conservation management measures at the site level. Institutional strengthening, including enforcement and integration of plans and policies, were considered to be important. The need to increase resources, both human and financial, at the site level was recorded as being an important solution. As a response to wetland loss and degradation, restoration measures were considered to be a priority.

#### Europe workshops

Workshops were held with NFPs, Ramsar Regional Initiatives, NGOs and local governments. Less than fifth of all European Contracting Parties participated in the workshops.

**Drivers:** There was strong agreement at all the workshops that urban-industrial pollution and invasive species were drivers of wetland degradation and loss in Europe. However, land use change to agricultural, and subsequent intensification, were also considered to be a significant drivers of negative changes in the state of European wetlands. The workshops all highlighted the impact of climate change, and associated extreme weather events, such as storms and droughts (even if droughts and desertification were not considered to be as significant across all of Europe as reported in the questionnaire). Drainage and hydro-morphological changes to wetlands were also considered important drivers of degradation and loss.

**Solutions:** All of the workshops agreed that effective conservation management measures, robust and integrated legislation, policies and planning, good scientific understanding of wetlands and enforcement of laws and regulations were key solutions within the European wetland context. There was only partial agreement with the solution of designating wetland protected areas and broader landscape approaches were considered helpful. The workshops also highlighted the importance of awareness raising, environmental education and local community engagement as being important solutions. The workshops also identified the need for restoration measures to be enacted where wetlands had already been degraded and lost.

### Latin American & the Caribbean workshops

Workshops were held with NFPs, NGOs, academics and local and other government departments from eleven countries across the region. Several issues arose about more general Convention practices including the need to ensure that rights of indigenous people and local communities are protected, to include indigenous and ancestral knowledge in decision-making, to avoid developing new terms in SP5 and to make the Convention and its products more accessible to communities.

**Drivers:** There was general agreement that the negative drivers reported through the questionnaire were relevant for the region. Urban and industrial pollution, industrial and urban development and infrastructure were all identified as being of concern. However, several other drivers of wetland degradation and loss were emphasised during the workshops. These included agriculture, and especially industrial agriculture, such as intensive livestock, and pollution, invasive species, criminality and corruption, poor governance, climate change and impacts on water temperature, illegal mining and deforestation and lack of alternatives to support sustainable livelihoods. The location of the wetland was identified as an important consideration as well, for instance urban wetlands will face different drivers than wetlands in non-urban areas. Similarly, even within urban environments there may be different drivers associated with different levels of social and economic vulnerability.

**Solutions:** The workshops generally agreed that the solutions highlighted by the questionnaire, namely local community involvement and empowerment, good scientific understanding of wetlands, and pro-active conservation management measures. However, the NFPs indicated that that raising local community awareness and environmental education might not be as effective. Other solutions that were identified included support for sustainable livelihoods and the necessary knowledge transfer and participation in such processes, strong laws and regulations that protect wetlands from economic development activities, development of innovative finance mechanisms such as payment for ecosystem service, coordination across government sectors and especially the agricultural sector, restoration of wetlands and capacity and knowledge exchange. The workshops participants also made the observation that there was a lack of connectivity between the solutions and the drivers and there is a need for these to align correctly.

### North America workshops

Workshops were held with NFPs, NGOs, academics, local government representatives and consultants. Additional feedback was provided by Indigenous Peoples and the Wetlands Office of Environment and Climate Change Canada.

**Drivers:** The workshop participants agreed that the following drivers identified through the questionnaire were important in North America: introduced / invasive species, industrial development / infrastructure and urban development / infrastructure. All three workshops reported that agriculture was also a key driver of wetland loss and degradation. Lack of regulation and implementation, climate change and modification in natural hydrology were also considered important in the North American context. All the workshops identified regional differences in drivers. An important example of this regional variation was that the impacts on wetlands from introduced / invasive species was more of an issue in the south of the continent, whereas in the north keeping peat in the ground and keeping it wet, so reducing impact of agriculture, forestry and climate change on wetlands, was the key issue.

**Solutions:** There was general agreement across the workshops that five solutions highlighted in the questionnaire reporting were important for North America. These included: designating wetland protected areas, conservation management measures, good scientific understanding of

wetlands, enforcement of laws and regulations, and robust and integrated legislation, policies and planning. All three workshops and a workshop with Indigenous Peoples in Canada felt that important solutions that were missing were: engagement with Indigenous Peoples; integration of Western science with Indigenous science and knowledge; awareness raising, education, and nature-based solutions.

### Oceania workshops

Workshops were held with NFPs, state and local government, NGOs and academics.

**Drivers:** There was relatively strong agreement regarding the importance of invasive species and agricultural pollution as being significant drivers of wetland degradation within the region. However, all the workshops highlighted climate change as a significant driver of negative change in the state of wetlands, particularly through sea level rise, altered hydrology and climate induced hazards. Many participants did not agree that urban and industrial pollution were significant drivers of wetland degradation across the region although there was some discussion about which industries would be included here and the possibility that a high percentage of questionnaire respondents living alongside such activities might have influenced the result. Other important drivers of wetland degradation highlighted by the workshops included water allocation and regulation and lack of resources to implement the Convention. An important observation made during the workshops was that there was no prioritisation made regarding the urgency of addressing drivers and based on their impact on wetlands. Additionally, the workshops highlighted the narrow awareness of impacts in various sectors (excluding wetland-environment sectors), especially those which are behind major negative drivers.

**Solutions:** There was general agreement that the solutions reported through the questionnaire were appropriate at the global scale but potentially less so at the regional level. There was a general concern at the lack of importance assigned by the questionnaire responses to adaptation strategies. Whilst the solutions highlighted through the questionnaire responses were generally considered valid, including robust and integrated legislation, policies and planning, good scientific understanding of wetlands, greater financial resources for management and the implementation of conservation management measures, there was some doubt expressed about the efficacy of designating protected areas. Some attendees expressed concerns that the solutions might not align with the drivers of wetland degradation and loss

### Main conclusions

Broadly, the workshops highlighted similar drivers and solutions as reported in the results of the questionnaire. However, the workshops unanimously also emphasised the importance of agriculture, through land conversion, drainage, pollution and water demand, as a significant direct driver of wetland degradation and loss. The importance of climate change as an ultimate driver of wetland degradation was also universally recognised by the workshops. The importance of invasive species as a negative driver was also more highly emphasised through the workshops, particularly in Latin America & the Caribbean.

The workshops also provided insights into indirect or ultimate drivers of wetland degradation and loss. These included poor governance, corruption and criminality, limited socio-economic alternatives and lack of political will.

The differences among different stakeholder groups were not strongly apparent. However, it was noted that the feedback received from NGOs usually highlighted a longer list of negative drivers than government participants. Similarly, the NGOs were more likely to emphasise ultimate drivers

such as the need for better governance and stronger enforcement of legal instruments than governmental participants.

The workshops also highlighted that even within regions there are significant differences among the impact of different drivers. For instance, in North America the impact of invasive species was considered to represent a greater threat to wetlands towards the south of the continent whereas in the North of the impact of climate change on peatlands was considered to be considerably more significant. Consequently, each driver needs to be considered within a specific spatial context. This is relevant at regional but also at the national scale where there may be urban-rural differences in the drivers of wetland loss and degradation.

Whilst there was relatively good correlation between the solutions reported through the questionnaire and the workshops, the workshops also highlighted two important points. Firstly, there was no priority assigned to the list of drivers and their potential solutions, and the impact of each solution was considered to have equal weight whereas this is unlikely to be the case. Secondly, there was no mapping of the solutions to the drivers. It is necessary to match the appropriate solution to the prevailing driver to ensure its effectiveness in implementation.

### 3.3 Other consultation

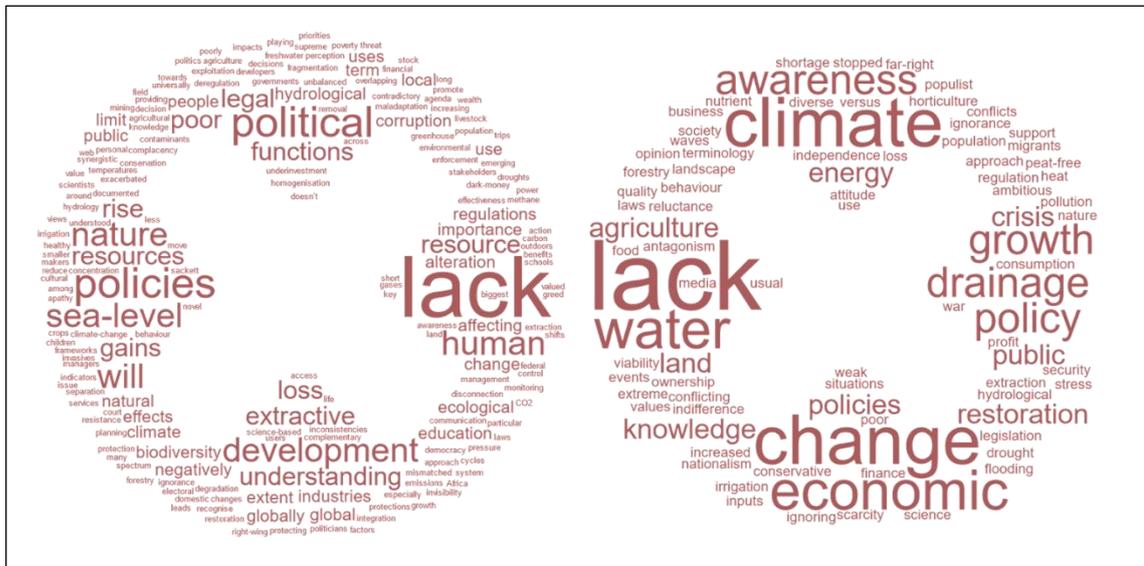
In addition to the virtual workshops, ad hoc opportunities to engage with a diversity of stakeholders were undertaken. At the ad hoc meetings, opportunities to engage took different forms depending on the nature of the meeting. In some cases, the meetings simply provided an opportunity to raise awareness of the SP5 development process, at other meetings there were opportunities to seek more robust feedback and information. The following ad hoc meetings were attended:

- Africa pre-SC62 meeting (July 2023)
- Asia-Oceania Pre-SC62 meeting (August 2023)
- Youth Engaged in Wetlands meeting (August 2023)
- Society of Wetland Scientists (SWS) annual meeting (June 2023)
- Wetland City Mayors (June 2023)
- Power to the Peatlands meeting (September 2023)
- Joint National Coastal to Coast New South Wales Coastal Conference (November 2023)

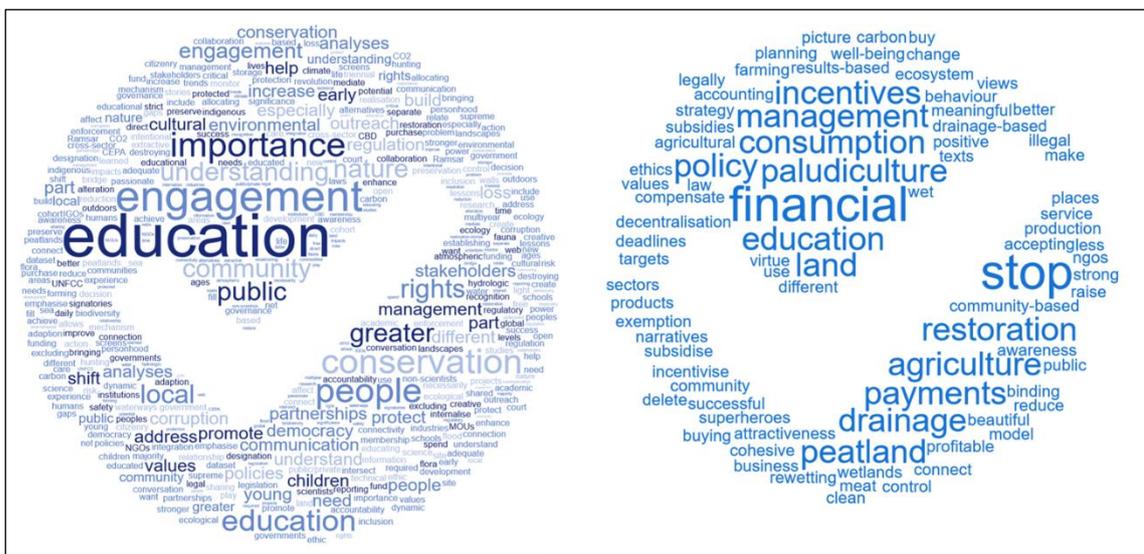
At the SWS annual meeting in Spokane in Washington State, USA, and at the Power to the Peatlands meeting in Antwerp, Belgium, there was an opportunity to interact with an audience. At both meetings the audience was asked the following two questions:

- What are the main threats to wetlands, and particularly emerging and novel threats?
- What are the best solutions to stem wetland degradation and loss?

Responses were collected from approximately 80 respondents at the two meetings. The respondents provided their answers on post-it notes which were transcribed. The two meetings mainly comprised wetland academics, consultants and NGO personnel. The SWS meeting was primarily attended by participants from the United States of America. Whereas the Power to the Peatlands meeting was more global in its audience but with the majority of participants being from Europe. The various responses have been assembled in word clouds to pictorially summarise the main points made to the two questions. The threats are depicted in Figure 8 and the solutions in Figure 9.



**Figure 8.** Word clouds derived from the main threats to wetlands. (Left: SWS Annual Meeting; Right: Power to the Peatlands).



**Figure 9.** Word clouds derived from the main solutions for stemming wetland degradation. (Left: SWS Annual Meeting; Right: Power to the Peatlands).

The threats reported at both meetings highlight the lack of various issues including political will, relevant policies, resources, understanding, awareness and knowledge. Specific threats that feature from the SWS meeting include extractive industries, development, sea level rise and politics. From the Antwerp meeting, climate change, drainage, economic growth, agriculture, energy production and policies all featured. Education, engagement, conservation and community all featured highly

as solutions proposed by the audience in Spokane. These responses differed from the solutions proposed at the Power to the Peatlands meetings where financial payments, agriculture, paludiculture, management, incentives stopping drainage and education were the most frequently reported solutions. The differences observed from the two meetings reflect the nature of the meetings and the constituency of the audience. The SWS meeting was mainly populated by wetland scientists from the United States that were considering recent governmental policy changes with regards to wetlands. Whereas the audience at the Antwerp meeting were almost exclusively peatland specialists, primarily from northern and central Europe. Hence there was a strong focus on peatland issues such as paludiculture and relationship between peatlands and agriculture.

The conclusion drawn from this ad hoc consultation is that the results will reflect the audience and their particular interests. This consultation bias is unsurprising but serves as useful reminder when analysing the outcomes of other elements of the engagement and consultation strategy.

## 4 Literature review

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### KEY MESSAGES

- Robust scientific evidence indicates that degradation and loss of wetlands continues at alarming rates.
- Widespread deterioration of the state of the world's remaining wetlands is ongoing.
- Rates of wetland loss and degradation are greatest in Latin America & the Caribbean and Africa.
- Almost 5000 different wetland-dependent species are threatened with extinction.
- Agriculture is the main direct driver of wetland degradation and loss.
- Development activities associated with a growing human population is underpinning a variety of other drivers of wetland decline.
- Local level actions and initiatives can provide greater wise use outcomes than intergovernmental or national policy outputs.
- Wetlands embody different concepts for different people and a multitude of diverse value systems and world views should be considered to reframe the wetlands-human relationships.

#### 4.1 State and change of state of wetlands

##### *The global state of wetlands*

The 2018 Global Wetland Outlook (GWO) (Ramsar Convention on Wetlands, 2018) and the subsequent 2021 Special Edition of the GWO confirmed starkly that wetlands are in decline globally (Convention on Wetlands, 2021). This conclusion was based on numerous global, regional and national studies in both the peer-reviewed and grey literature.

The understanding that degradation and loss of wetlands persists has been reported for decades (see Maltby, 1986; Dugan, 1990). Davidson (2014) reported that there has been a faster rate of loss during the 20<sup>th</sup> and early 21<sup>st</sup> centuries in comparison to previous times. This conclusion was echoed by Fluet-Chouinard et al. (2023) who reported that wetland loss has rapidly expanded from the mid-twentieth century but strikingly that more than 40% of all losses occurred in just five countries: the United States of America, Indonesia, Russia, India and China. Between 1978 and 2008 about a third of all natural wetlands in China were lost (Niu et al., 2012). A similar situation is reported elsewhere in Asia with considerable losses identified from Russia, India and Indonesia (Minayeva et al., 2009; An et al., 2013; Miettinen et al., 2016). These losses are also projected to continue. In India it is extrapolated that 84% of coastal wetlands will be lost if climate change driven sea level rise of 1m prevails (Blankespoor et al., 2012). The loss of wetlands is observed elsewhere in the world with up to 80% of wetlands reported as being lost in Lithuania (Minayeva et al., 2009); since the 1950s, Turkey has lost at least 1.3 million ha of its historic wetlands (Şekercioğlu et al., 2011); Colombia has lost at least a quarter of its wetlands (Patino & Estupinan-Suarez, 2016); and across the Mediterranean basin almost 50% of all wetlands have been lost between 1970 and 2013 (Geijzendorffer et al., 2018).

The decline in wetland area is not confined to a limited number of wetland types, with Davidson & Finlayson (2018) reporting global declines across almost all classes of inland and marine or coastal

wetlands. For coastal wetlands, it has been estimated that more than a third of all former global mangroves have been lost since 1960 (Polidoro et al., 2010), whilst up to 50% of saltmarshes have been lost across the world (McKinley et al., 2020). For tidal flats, tidal marshes and mangroves combined, it has been estimated that 13,700 square kilometres have been lost in the twenty years between 1999 and 2019 (Murray et al., 2022). Based on an analysis of 169 publications, Davidson (2014) reported that inland wetlands had declined by 69 to 75% in the twentieth century. Despite their importance in mitigating climate change, globally peatlands continue to be lost at a rate of some 5000 square kilometres each year (UNEP, 2022). River basin wetlands, particularly in temperate highly populated regions, have experienced almost 80% loss in the Danube and Yangtze river basins and over 50% loss in the Indus, Mississippi and St Lawrence watersheds (Fluet-Chouinard et al., 2023). Existing small, isolated wetlands in the North American Prairie Pothole Region may today only cover some 79% of their original area (Waz & Creed, 2017), however, challenges remain in the underestimation of the extent of loss of small, isolated wetlands from global landscapes (Gibbs, 2000).

Rates of wetland loss are not static in time or space. Historically, the largest losses have been recorded from Europe (56.3% loss) and North America (56.0%) (Davidson, 2014). There is evidence that rates of wetland loss between 1970 and 2015 varied across the world with highest rates estimated in Latin America and the Caribbean and lowest rates from Oceania (Darrah et al., 2019). A similar conclusion was drawn by Davidson (2014), with highest average rates of loss from the 20th and early 21<sup>st</sup> centuries greatest in the Neotropics and for inland wetlands in Asia.

It is clear that whilst historical loss of wetlands has been significant, wetland loss is not just an historical issue. Wetland loss continues today and at alarming rates (Darrah et al., 2019). The increases in rates of wetland loss since the Convention on Wetlands came into force in the early 1970s suggest that, despite the best of intentions of the Convention, its effectiveness in stemming wetland loss has been very limited and suggests that conservation and wise use efforts are failing across the globe and for all wetland types.

Complete wetland loss represents the extreme end of a spectrum of impact and degradation. Many wetlands, whilst not 'lost', are subject to historical or on-going threats that are undermining their ecological character (Convention on Wetlands, 2021). The state of the world's remaining wetlands is also changing. A citizen science survey conducted in 2017 and repeated in 2020 suggests that the state of our existing wetlands continues to change with deterioration far more common than improvement. The most widespread reports of deterioration are from Latin America and the Caribbean with highest levels of reported improvement from Oceania and Europe (McInnes et al., 2020; Simpson et al., 2021). Davidson et al. (2020) reported a similar prevalence of deterioration over improvement in the ecological character of wetlands between 2011 and 2017. Again, the levels of deterioration were greatest in Latin America and the Caribbean and Africa.

Negative changes to wetlands impact on the plethora of wetland-dependent species. Wetland species declines are occurring in all wetland types and across the globe. Ramsar Convention (2018) highlighted the depressing picture of loss and threats to every group of wetland dependent taxa. The IUCN Red List has assessed that of the 19,500 wetland -dependent species one quarter or almost 5000 different species, are threatened with extinction. Decline in numbers and diversity of wetland species are on-going from the charismatic mega-fauna (He et al., 2017; Lovich et al., 2018) to invertebrates (Hallman et al., 2017; Dhiman et al., 2020) and plants (Short et al., 2011; Reid et al., 2019).

The designation of Wetlands of International Importance ('Ramsar sites') is one of the cornerstones of the Convention on Wetlands and the global list of sites represents a substantial conservation effort (Finlayson, 2012; Kingsford et al., 2021). Despite their recognised importance, the deterioration in the state of Ramsar sites has been reported as on-going (McInnes et al., 2020; Simpson et al., 2021). The deterioration of Ramsar sites has been reported to be more widespread in countries with a larger average site area (Davidson et al., 2020) however much of the published information on Ramsar sites remains out of date (Davidson et al., 2019). The main causes of impacts on Ramsar sites have been identified as pollution, biological resource overuse, natural system modification and agriculture with riverine and lake wetlands the most widely impacted (Xu et al., 2019).

### *Drivers of wetland degradation and loss*

Understanding the factors that drive wetland degradation and loss is critical if mitigation solutions are to be proposed. The Global Wetland Outlook highlighted the impact of several drivers on the state of wetlands including agriculture, land use change, pollution and climate change (Convention on Wetlands, 2021). Numerous attempts have highlighted the significance of drivers of wetland loss on a global scale (Table 4). The impacts of agriculture, through direct land conversion, drainage or pollution, are widely recognised. Similarly, urban and industrial development drive wetland degradation across the world. Additionally, tourism, aquaculture, forestry, invasive species, erosion and siltation, and water regulation all contribute at a global level to wetland degradation and loss.

**Table 4.** Examples of drivers of wetland degradation and loss of natural wetlands at a global scale.

Source	Van Asselen et al. (2013)	Daryadel & Talaei (2014)	McInnes et al. (2020)	Simpson et al. (2021)	Ballut-Dajud et al. (2022)	Fluet-Chouinard et al. (2023)
Global threat to wetlands	<ul style="list-style-type: none"> <li>• Arable land conversion</li> <li>• Urban settlement</li> <li>• Infrastructure development</li> <li>• Land drainage</li> <li>• Industrial development</li> <li>• Pasture conversion</li> <li>• Aquaculture</li> <li>• Dam construction</li> <li>• Plantations</li> <li>• Logging/deforestation</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage</li> <li>• Land use conversion</li> <li>• Discharge of hazardous wastes</li> <li>• Tourism</li> <li>• Invasive/alien species</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Species introductions</li> <li>• Agricultural pollution</li> <li>• Urban/industrial pollution</li> <li>• Agricultural intensification</li> <li>• Urban development</li> <li>• Erosion</li> <li>• Drainage</li> <li>• Industrial development</li> <li>• Drought</li> <li>• Water abstraction</li> </ul>	<ul style="list-style-type: none"> <li>• Water regulation</li> <li>• Wildlife disease</li> <li>• Urban development</li> <li>• Tourism</li> <li>• Agricultural intensification</li> <li>• Species introductions</li> <li>• Siltation</li> <li>• Agricultural pollution</li> <li>• Hunting</li> <li>• Urban pollution</li> </ul>	<ul style="list-style-type: none"> <li>• Farming</li> <li>• Urbanization</li> <li>• Agriculture</li> <li>• Industry</li> <li>• Engineering works</li> <li>• Cattle raising</li> <li>• Sewage water</li> <li>• Deforestation</li> <li>• Coastal erosion</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Cropland conversion</li> <li>• Rice paddy conversion</li> <li>• Urban development</li> <li>• Forestry</li> <li>• Cultivation</li> <li>• Pasture conversion</li> <li>• Peat extraction</li> </ul>

Research conducted on different wetland types in different regions of the world indicate that there are subtle differences among different drivers (Tables 5 to 10). Even within continents, and also within countries, the drivers of wetland loss and degradation can vary significantly depending on the local circumstances. Designing appropriate mitigation measures and solutions to address these multiple challenges requires enhanced integration and co-ordination across sectors (Convention on Wetlands, 2021). Many of the drivers of wetland degradation and loss are inter-related. For instance, land conversion to arable farming can drive eutrophication of water, contribute to increased sedimentation and reduce wetland water availability (Verhoeven & Setter, 2010). Similarly, increases in tourism can result in land conversion for infrastructure, increases in human

sewage and disturbance to wildlife, even at Wetlands of International Importance (Bego & Mallezi, 2011).

**Table 5.** Examples of drivers of wetland degradation and loss in Africa.

Source	Van Asselen et al. (2013)	Adeeyo et al. (2022)	Soboka et al. (2021)	Ministry of Water and Environment (2016)	Ministry of Environment and Mineral Resources (2012)	Dargie et al. (2018)
Scale / Location	Continent	South Africa	Ethiopia	Uganda	Kenya	Congo Basin
Threat to wetlands in Africa	<ul style="list-style-type: none"> <li>• Farming</li> <li>• Coastal erosion</li> <li>• Deforestation</li> <li>• Fishing with nets</li> <li>• Salinity</li> <li>• Drainage</li> <li>• Flooding</li> <li>• Cattle raising</li> <li>• Urbanization</li> <li>• Industry</li> </ul>	<ul style="list-style-type: none"> <li>• Air pollution</li> <li>• Sewage pollution</li> <li>• Informal settlements</li> <li>• Invasive species</li> <li>• Urbanisation</li> <li>• Drainage</li> <li>• Agricultural conversion</li> <li>• Mining</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural land conversion</li> <li>• Drainage for agriculture</li> <li>• Overexploitation</li> <li>• Urbanisation</li> <li>• Dam construction</li> <li>• Road construction</li> <li>• Pollution</li> <li>• Overgrazing</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage of wetlands</li> <li>• Introduction of new crops</li> <li>• Pollution</li> <li>• Over-harvesting</li> <li>• Reclamation for human settlements</li> <li>• Industrial development</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Urbanization</li> <li>• Human settlement</li> <li>• Pollution</li> <li>• Deforestation</li> <li>• Overgrazing</li> <li>• Sedimentation</li> <li>• Invasive alien species</li> <li>• Over-exploitation of natural resources</li> <li>• Hydro-power development</li> </ul>	<ul style="list-style-type: none"> <li>• Climate change</li> <li>• Forestry</li> <li>• Agriculture</li> <li>• Mining</li> <li>• Hydrocarbon</li> <li>• Transport infrastructure</li> <li>• Hydropower</li> </ul>

**Table 6.** Examples of drivers of wetland degradation and loss in Asia.

Source	Van Asselen et al. (2013)	Indo-Burma Ramsar Regional Initiative (2022)	Yoo et al. (2021)	Wetlands International (2021)	Gupta et al. (2020)	Xu et al. (2019)
Scale / Location	Continent	Indo-Burma region	East Asia	Himalayas	India	China
Threat to wetlands in Asia	<ul style="list-style-type: none"> <li>• Aquaculture</li> <li>• Farming</li> <li>• Urbanization</li> <li>• Industry</li> <li>• Coastal erosion</li> <li>• Sewage water</li> <li>• Construction of canals and reservoirs</li> <li>• Roads</li> <li>• Climate change</li> <li>• Deforestation</li> </ul>	<ul style="list-style-type: none"> <li>• Land use change</li> <li>• Natural resource utilisation</li> <li>• Hydropower</li> <li>• Invasive species</li> <li>• Pollution</li> </ul>	<ul style="list-style-type: none"> <li>• Forestry</li> <li>• Agriculture</li> <li>• Fisheries</li> <li>• Industry and mining</li> <li>• Aquaculture</li> <li>• Transport</li> <li>• Hydropower</li> <li>• Tourism</li> <li>• construction</li> </ul>	<ul style="list-style-type: none"> <li>• Climate change</li> <li>• Unregulated tourism</li> <li>• Grazing</li> <li>• Disturbance to wildlife</li> <li>• Conversion for agriculture</li> <li>• Linear infrastructure development</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural conversion</li> <li>• Deforestation in wetlands</li> <li>• Hydrological alteration</li> <li>• Inundation by reservoirs</li> <li>• Climate change in upper watersheds</li> <li>• Degradation of water quality</li> <li>• Groundwater depletion</li> <li>• Invasive and introduced species</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture conversion</li> <li>• Urbanization</li> <li>• Climate change</li> <li>• Dam and reservoir construction</li> </ul>

Factors that drive wetland degradation and loss include direct drivers (proximate), such as pollution, land conversion or drainage, and indirect (ultimate) drivers, such population growth, economic growth, supply of food and patterns of production and consumption (Huu Nguyen et al.,

2016; Sica et al., 2016; Ramsar Convention, 2018; Msofe et al., 2019). Addressing the indirect drivers remains a challenge beyond the direct purview of the Convention on Wetlands, but without addressing such ultimate drivers it is unlikely that the impacts of direct drivers can be resolved. However, ensuring that the impacts of direct drivers are avoided, mitigated and compensated is an essential commitment adopted by Contracting Parties and reiterated in the GWO (Ramsar Convention, 2012; Ramsar Convention, 218; Finlayson & Gardner, 2020).

**Table 7.** Examples of drivers of wetland degradation and loss in Europe.

Source	Van Asselen et al. (2013)	Grzybowski & Glińska-Lewczuk (2020)	Martinez-Megias & Rico (2022).	Reckermann et al. (2021)	Riley et al. (2018)
Scale / Location	Continent	Central Europe	Mediterranean coastal wetlands	Baltic	UK & Ireland small wetlands
Threat to wetlands in Europe	<ul style="list-style-type: none"> <li>• Farming</li> <li>• Cattle raising</li> <li>• Urbanization</li> <li>• Aquaculture</li> <li>• Tourism</li> <li>• Dam construction</li> </ul>	<ul style="list-style-type: none"> <li>• Hydraulic changes</li> <li>• Urbanization</li> <li>• Transportation</li> <li>• Service corridors</li> <li>• Unstable water resources</li> <li>• Fishing and harvesting of natural resources</li> <li>• Agricultural pollution</li> <li>• Invasive species</li> <li>• Tourism</li> </ul>	<ul style="list-style-type: none"> <li>• Eutrophication</li> <li>• Chemical pollution</li> <li>• Invasive species</li> <li>• Salinization</li> <li>• Temperature rise</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural pollution</li> <li>• Aquaculture</li> <li>• Fisheries</li> <li>• River regulation</li> <li>• Offshore wind farms</li> <li>• Shipping</li> <li>• Chemical contaminants</li> <li>• Unexploded and dumped ordnance</li> <li>• Microplastics</li> <li>• Tourism</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage</li> <li>• Sedimentation</li> <li>• Hydrological change</li> <li>• Water temperature</li> <li>• Eutrophication</li> <li>• Acidification</li> <li>• Invasive species</li> </ul>

**Table 8.** Examples of drivers of wetland degradation and loss in Latin America and the Caribbean.

Source	Van Asselen et al. (2013)	León et al. (2021)	Castello & Macedo (2016)	Torremorell et al. (2021)	Veas-Ayala et al. (2023)	Ricaurte et al. (2017)
Scale / Location	Continent	Chile & Argentina peatlands	Amazon basin	Continent	Costa Rica	Colombia
Threat to wetlands in Latin America and the Caribbean	<ul style="list-style-type: none"> <li>• Farming</li> <li>• Urbanization</li> <li>• Cattle raising</li> <li>• Sewage pollution</li> <li>• Dam construction</li> <li>• Industry</li> <li>• Aquaculture</li> <li>• Deforestation</li> <li>• Sea level rise</li> <li>• Fires</li> </ul>	<ul style="list-style-type: none"> <li>• Peat extraction</li> <li>• Horticultural extraction</li> <li>• Invasive species</li> <li>• Cattle grazing</li> <li>• Logging</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Dams</li> <li>• Mining</li> <li>• Land cover change</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Land use change</li> <li>• Mining</li> <li>• Agriculture</li> <li>• Urban expansion</li> <li>• Over abstraction of water</li> <li>• Regulation of flows</li> <li>• Dams/hydraulic infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage</li> <li>• Livestock</li> <li>• Agriculture</li> <li>• Deforestation</li> <li>• Agricultural land use change</li> <li>• Rice agriculture</li> <li>• Fire</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• Cattle ranching</li> <li>• Mining</li> <li>• Water infrastructure</li> <li>• Road infrastructure</li> </ul>

### Summary

Across the world, wetlands and their dependent species continue to decline and be lost at alarming rates. Both the area of wetlands and the state of the remaining wetlands are also in decline. The peer-reviewed literature is categorical and universal in supporting these conclusions, even within protected sites (Reis et al., 2017).

**Table 9.** Examples of drivers of wetland degradation and loss in North America.

Source	Clare & Creed (2014)	Day et al. (2019)	McKenna et al. (2019)	White et al. (2022)	Dahl (2011)
Scale / Location	Alberta, Canada	Mississippi Delta	Prairie pothole region	North American Coastal Plain forested wetlands	Conterminous United States of America
Threat to wetlands in North America	<ul style="list-style-type: none"> <li>• Agricultural conversion</li> <li>• Drainage</li> <li>• Urban development</li> <li>• Industrial development</li> </ul>	<ul style="list-style-type: none"> <li>• Dredging</li> <li>• Canal construction</li> <li>• Subsidence</li> <li>• Wave erosion</li> <li>• Saltwater intrusion</li> <li>• Changes in sediment transport</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage</li> <li>• Conversion to cropland</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Sea level rise</li> <li>• Drainage</li> <li>• Storm incidence</li> <li>• Conversion to scrubland</li> <li>• Habitat fragmentation</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Arable agriculture</li> <li>• Horticulture</li> <li>• Pastureland conversion</li> <li>• Ranching</li> <li>• Plantation forests</li> <li>• Rural development</li> <li>• Urban development</li> <li>• Other land use change</li> </ul>

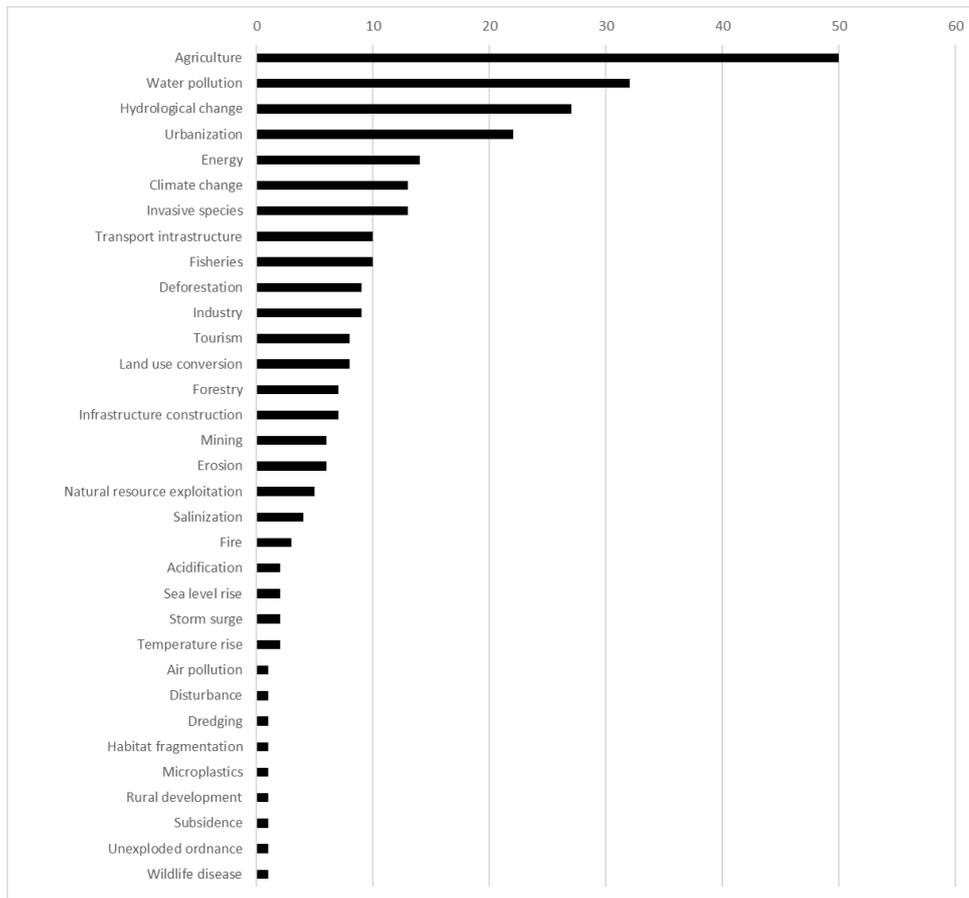
**Table 10.** Examples of drivers of wetland degradation and loss in Oceania.

Source	Van Asselen et al. (2013)	Adame et al. (2019)	Brodie et al. (2020)	Robertson et al. (2020)	Davis et al. (2015)
Scale / Location	Region	Great Barrier Reef catchment	Pacific islands seagrass beds	New Zealand Southland	Australia
Threat to wetlands in Oceania	<ul style="list-style-type: none"> <li>• Farming</li> <li>• Sewage pollution</li> <li>• Industry</li> <li>• Dams</li> <li>• Roads</li> <li>• Urbanization</li> <li>• Climate change</li> <li>• Deforestation</li> <li>• Fires</li> <li>• Drainage</li> </ul>	<ul style="list-style-type: none"> <li>• Land conversion for agriculture</li> <li>• Agricultural pollution</li> <li>• Invasive species</li> <li>• Altered hydrological connectivity</li> <li>• Climate change</li> </ul>	<ul style="list-style-type: none"> <li>• Nutrient run off</li> <li>• Sediment run off</li> <li>• Urban development</li> <li>• Tourism development</li> <li>• Sewage pollution</li> <li>• Coastal erosion</li> <li>• Storm surge</li> <li>• Logging</li> </ul>	<ul style="list-style-type: none"> <li>• Grassland agriculture</li> <li>• Conversion to agriculture</li> <li>• Conversion to horticulture</li> <li>• Drainage</li> </ul>	<ul style="list-style-type: none"> <li>• Land use change</li> <li>• Sedimentation</li> <li>• Eutrophication</li> <li>• Salinisation</li> <li>• Acidification</li> <li>• Pollution</li> <li>• Altered flow regimes</li> <li>• Invasive species</li> </ul>

Analysis of the main direct drivers of wetland loss discussed above emphasises the conclusions promulgated in the GWO that the impact of agriculture in its multiple forms, driven primarily by food production, is the main threat to wetlands (Convention on Wetlands, 2021) (Figure 10). The impact of land conversion (including from natural wetlands to human-made wetlands), increased greenhouse gas emissions, drainage and pollution from agro-chemicals all contribute significantly to the global decline in wetlands. Agrifood systems are essential to feed and nourish a growing human population, however, as the UN Food and Agriculture Organisation concluded ‘market, policy and institutional failures underpinning agrifood systems contribute to hidden costs, such as climate change, natural resource degradation and the unaffordability of healthy diets’ (FAO, 2023). For wetlands, these hidden costs and market externalities represent an existentialist threat requiring transformative change. Undoubtedly, the conservation of wetlands and the need to ensure food security for an increasing human population are inextricably interrelated issues (Glamann et al., 2017). However, a dichotomy still exists between the aspiration to deliver the wise use of wetlands and the need to feed the growing human population. It has been argued, that knowledge is not the challenge, but rather there is a need to bring together at scale the many techniques and strategies for biodiversity-friendly farming systems that exist (Dudley & Alexander, 2017).

Water pollution, from agriculture but also from other sectors including urban land uses, industry, transport, mining, tourism and temperature change, represents an insidious threat to wetland-dependent biodiversity (Kingsford et al., 2016; Sievers et al., 2018). Wetlands are parts of wider

hydrological networks linked through surface and groundwater pathways (Stewardson et al., 2017). Often the source of pollution can be at distance from the wetland (Lane et al, 2018; Freeman et al., 2019), especially in the case of estuarine and coastal wetlands such as the Great Barrier Reef and the coast of the Gulf of Mexico (Kroon et al., 2016; Rabalais & Turner, 2019).



**Figure 10.** Frequency of reporting of drivers of wetland degradation and loss. (See Tables 1 to 6 for sources).

Many other frequent and pervasive threats to wetlands and their biodiversity, including urbanization, energy production and infrastructure development, are inter-related with many mutually dependent feedbacks and impacts, all driven primarily by the need, as with agriculture, to support and sustain a growing population on a finite planet (Dasgupta et al., 2023). All of the threats identified are also influenced by climate change. Understanding the inter-relationships among wetland degradation and loss, sustaining a growing human population and climate change is essential to deliver on the SDGs, to meet national commitments under the 2015 Paris Agreement on Climate Change and to achieve the ambitions of the Kunming-Montreal Global Biodiversity Framework (Fuso Nerini et al., 2019; Nicholson et al., 2021). Consequently, addressing threats needs to be driven by the Convention on Wetland’s adopted framework to avoid-mitigate-compensate but delivered through vastly improved cross-sectoral engagement and understanding (Ramsar Convention, 2012; Bellanger et al., 2021).

## 4.2 Addressing wetland degradation and loss

The drivers of wetland loss are many. Avoiding further wetland loss and mitigating the impact of these drivers is an urgent priority (Ramsar Convention, 2018). Actions are required at all levels from the intergovernmental, national and local. At the intergovernmental level, the Convention on Wetlands has a critical role to play. However, at any of these levels, working in isolation will not deliver the most efficient outcomes. Therefore, as was clearly articulated in the Millennium Ecosystem Assessment almost a twenty years ago, cross-sectoral and integrated decision-making and actions are still required at all levels (Millennium Ecosystem Assessment, 2005).

The GWO (Ramsar Convention, 2018) recognises the need for urgent action and emphasises the following approaches:

- Enhance the network of Ramsar sites;
- Integrate wetlands into planning and the implementation of post-2015 development agenda;
- Strengthen legal and policy arrangements to protect all wetlands;
- Implement Ramsar guidance to achieve wise use;
- Apply economic and financial incentives for communities and businesses;
- Integrate diverse perspectives into wetland management; and
- Improve national wetland inventories and track wetland extent.

The citizen science surveys on the state of the world's wetlands both reported the following measures as being the most effective drivers of positive wetland conservation outcomes (McInnes et al, 2020; Simpson et al., 2021):

- Local community awareness;
- Conservation management measures;
- Cultural values and traditions; and
- Tourism.

There is a divergence between the recommended actions articulated in the GWO and the positive interventions reported through citizen science. The citizen science actions focus, unsurprisingly, at the site or local level. This reflects the concept of thinking globally but acting locally to deliver the desired outcomes. It also recognises that every little helps to protect or restore wetlands, even at the local scale (Aronson & Alexander, 2013).

Others have urged that wetland managers should incorporate climate change mitigation measures as well as biodiversity conservation within site-based project-level work, whether or not governing policies and regulations exist (Moomaw et al., 2018). This implies that urgent, local action can take place even if there is a policy vacuum, or if national legislation and policy direction is poor or fragmented. There is an obvious logic to the approach of acting locally. Ultimately, wetland degradation and loss occur at the site scale. Therefore, interventions taken at the intergovernmental or national level, whilst desirable to create an enabling environment for wetland wise use (Myers et al., 2013; Rattan et al., 2021), will always be dependent on site-based wetland conservation outcomes. This is especially true where human-nature relationships are associated with place attachment and relational values (Horwitz, 2022). Therefore, understanding local values, building capacity and harnessing local communities and actors should be considered essential to stemming the degradation and loss of wetlands (Shrestha, 2011; Roy et al., 2015; Joshi et al., 2021).

Some researchers have gone further and recognise short-comings in the wise use approach and the definition of wetland ecological character as manifest by the failures of wetland managers and policy makers to address the increasing human impacts on wetlands (Kumar et al., 2023). The traditional approach of decision-making based on ecological sciences and evidence alone have failed to proactively integrate the human elements, and particularly the multi-faceted relationships between humans and nature (Bennett et al., 2017). To overcome this, it has been argued that there is a need for a reframing of the foundational concept of 'ecological character' and to consider wetlands as coupled social-ecological systems (Kumar et al., 2020). Inherent in this is the thinking that wetlands, as part of nature, embody different concepts for different people, including biodiversity, ecosystems, Mother Earth, and systems of life. The work of the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) has aimed to embrace a multitude of knowledge systems and recognises the concept, originating in the vision of many Indigenous Peoples, of living well in balance and harmony with Mother Earth (Diaz et al., 2015). It has been argued by Davies et al. (2020) that the on-going loss of wetlands needs to be addressed through a shift in the human-Nature relationship to one of greater reciprocity and respect for Nature. The Kunming-Montreal Global Biodiversity Framework (GBF) recognises nature and nature's contributions to people are vital for human existence and good quality of life, including human well-being, living in harmony with nature, and living well in balance and harmony with Mother Earth (Convention on Biological Diversity, 2022). The GBF recognizes and considers these diverse value systems and concepts, including, for those countries that recognize them, rights of nature and rights of Mother Earth, as being an integral part of its successful implementation. An evolution in the framing of the human-wetland relationship would facilitate a broader societal engagement in the state of wetlands and allow for the inclusion of a diversity of knowledge and value systems to the decision-making processes.

### 4.3 Implications for the 5<sup>th</sup> Strategic Plan

The literature review has re-emphasised the need for urgent action to stem the degradation and loss of wetlands and to stave off the potential extinction of almost 5000 wetland-dependent species. Whilst local, national and regional differences are reported, agriculture and food production remain the main threat to wetlands. Population growth is driving the need for a greater demand for food and similarly is the ultimate driver behind urbanization, infrastructure development, natural resource utilisation, energy generation and pollution. Against an increasing human population, climate change continues to underpin negative impacts on wetlands through changes in hydrological cycles, temperature and greenhouse gas emissions.

Actions within the 5SP need to ensure that they are targeted at the key issues. Interventions, through intergovernmental and national policies and processes whilst helpful, have demonstrably failed to stem the degradation and loss of wetlands. Resolutions passed by the Convention on Wetlands and national wetland policies or wetland inventories remain as outputs, not wetland conservation outcomes.

Wetland wise use outcomes are urgently required. There is evidence that actions taken at a local or site level that embrace local values and relationships through linkages between human and ecological systems have the potential to provide such positive outcomes for wetlands.

## 5 Implementation of the 4<sup>th</sup> Strategic Plan

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### KEY MESSAGES

- By COP13, only 3 out of 41 4<sup>th</sup> Strategic Plan indicators assessed had been implemented by more than 10% of Contracting Parties.
- Only 122 (of 172) Ramsar Contracting Parties submitted COP14 National Reports.
- Globally (46%) and regionally (42-52%) the extent of implementation addresses at most only about half of the actions Parties have committed to in their adoption of the 4<sup>th</sup> Strategic Plan.
- Given that there is reported continuing loss and conversion of wetlands, and that the deterioration of the state of remaining wetlands is increasingly widespread, the current extent of Strategic Plan implementation at both the global and national levels appears insufficient to address these issues.

### 5.1 Background and context

The 4<sup>th</sup> Strategic Plan is designed to support the efforts of Parties, partners and other stakeholders in preventing, stopping and reversing the global decline of wetlands. Consequently, if Contracting Parties and others have exerted sufficient effort to deliver on the targets and actions in the Convention's 4<sup>th</sup> Strategic Plan then the outcome will be their achievement of the Convention's overall aim of the conservation and wise use of all wetlands, through stopping and reversing the loss and degradation of wetlands. The following section reviews progress on the 4<sup>th</sup> Strategic Plan using different sources of information.

### 5.2 Mid-term review on implementation of the 4<sup>th</sup> Strategic Plan

#### *Background*

Data were synthesised from an analysis of the National Reports submitted to COP13 and shared in the *Report of the Secretary General on the implementation of the Convention: Global implementation*. The analysis assessed the progress against implementation at the mid-point of the 4<sup>th</sup> Strategic Plan for all the goals, targets and indicators. A report was submitted to the SP5WG. This summary is based on the conclusions drawn from the report.

#### *Progress against Goals and Targets*

The progress made in the implementation of the 4<sup>th</sup> Strategic Plan at the mid-point review was limited. Progress was assessed between COP12 and COP13 for comparable indicators (Table 11). The assessment suggests that by COP13 limited progress had been made on implementing all the Goals of the 4<sup>th</sup> Strategic Plan. For only 3 out of the 41 indicators (7.3%) did more than 10% of all Contracting Parties report implementation. However, there is no indication of the magnitude of the number of Contracting Parties above 10% and 10% represents a relatively low bar to achieve given that it would have been less than 17 Contracting Parties. 21 of the indicators (51.2%) were reported to have been implemented by less than 5% of all Contracting Parties. Whilst subtle variations were reported across the six regions, the global picture clearly demonstrates that by COP13 progress on implementing the 4<sup>th</sup> Strategic Plan was extremely limited.

**Table11.** Mid-point review of progress against the 4<sup>th</sup> Strategic Plan Goals, Targets and Indicators.

Goals	Targets	Number of indicators	Number of Indicators achieved from COP12 to COP13 to assess progress towards Targets			
			Achieved by > 10% of all CPs	Achieved by > 5% of all CPs	Achieved by +/- 4% of CPs	Achieved by <5% of all CPs
Goal 1: Addressing the drivers of wetland loss and degradation	1	7	1	2	1	3
	2	-	No report			
	3	4	0	1	1	2
	4	2	1	0	0	1
Goal 2: Effectively conserving and managing the Ramsar Site Network	5	1	0	0	0	1
	6	-	No report			
	7	1	0	1	0	0
Goal 3: Wisely using all wetlands	8	3	0	0	2	1
	9	3	1	0	1	1
	10	-	No report			
	11	3	0	1	0	2
	12	2	0	0	0	2
	13	-	No report			
Goal 4: Enhancing implementation	14	-	No report			
	15	1	0	0	0	1
	16	7	0	0	5	2
	17	3	0	0	0	3
	18	3	0	0	2	1
	19	1	0	0	0	1
TOTAL		41	3	5	12	21

### 5.3 Reporting by the Secretariat on the 4<sup>th</sup> Strategic Plan implementation

The Convention on Wetlands' Secretariat provides triennial implementation reports to Contracting Parties at COP, derived from National Report information and other information held by the Secretariat.

#### *Global implementation reports*

The most recent implementation reports produced by the Secretariat are:

- COP13 Doc.11.1 Report of the Secretary General on the implementation of the Convention: Global implementation  
[https://www.ramsar.org/sites/default/files/documents/library/cop13doc.11.1\\_global\\_implementation\\_e.pdf](https://www.ramsar.org/sites/default/files/documents/library/cop13doc.11.1_global_implementation_e.pdf)
- COP14 Doc.9.1 Report of the Secretary General on the implementation of the Convention: Global implementation  
[https://www.ramsar.org/sites/default/files/documents/library/cop14\\_9\\_1\\_sg\\_report\\_global\\_implementation\\_e.pdf](https://www.ramsar.org/sites/default/files/documents/library/cop14_9_1_sg_report_global_implementation_e.pdf)

Each report provides a very detailed assessment of the extent of Convention implementation provided by CPs under each Goal of the Strategic Plan, and of progress (or otherwise) in the extent of implementation over time, for some indicators since COP10. The report to COP14 indicates that implementation progress has been reported in relation to:

- incorporation of wetlands benefits into other national strategies and planning processes;
- the assessment of water allocation for wetlands;

- establishment and review of national policies on invasive species control and management;
- growth of the network of Wetlands of International Importance (Ramsar Sites);
- wetlands policies;
- wetlands as natural water infrastructure;
- application of cultural values of wetlands;
- identification of priority sites for restoration and implementation of restoration programmes, plans or projects; and
- establishment of communication, capacity building, education, participation and awareness (CEPA) plans, mechanisms in place to share the Convention guidelines with different stakeholders and World Wetlands Day activities.

The reports also state that there has been less progress in:

- the incorporation of wetland issues and benefits into productive sectors (mining, energy, tourism);
- removal of perverse incentives;
- implementation of management plans, assessments of the effectiveness of Ramsar Site management, reports to the Secretariat on Article 3.2; and
- establishment of collaborative mechanisms to involve national focal points of other multilateral environmental agreements (MEAs) and global and regional bodies and assessment of national and local training needs for the implementation of the Convention.

And that there appear to have been major decreases in implementation since COP13 on:

- assessment of the effectiveness of Ramsar Site management;
- projects that contribute to poverty alleviation;
- incorporation of wetlands in national agriculture forest programmes;
- operation of national or Ramsar wetlands committees; and
- financial assistance and capacity building.

The implementation reports suggest that progress on the 4<sup>th</sup> Strategic Plan has been, at best, inconsistent, reflecting the conclusions described in the mid-term review above.

#### 5.4 Review of 4<sup>th</sup> Strategic Plan indicators from National Reports to COP14

The National Reports submitted in advance of COP14 contain numerous responses to indicator questions. However, it is noted that almost all the National Report indicators of the 4<sup>th</sup> Strategic Plan implementation are national 'process' indicator questions. Only two indicator questions concern the 'outcomes' of implementing these processes. These concern trends in the (ecological character) state of all wetlands and of designated Ramsar Sites (indicator 8.5), and additional information concerning percentage change in wetland area (indicator 8.6).

Concerning indicator 8.6 relating to change in wetland area, very few Contracting Parties have provided such information in their National Reports. This is not surprising because many countries do not have a national wetland inventory, and even fewer report having updated such an inventory in recent years. Concerning indicator 8.5, analyses of previous National Reports found that deterioration in the state of all wetlands was more widespread than was improvement, and that this deterioration has been becoming increasingly widespread over time (see Davidson et al., 2020). From COP14 National Reports this more widespread degradation than improvement is

continuing. This indicates that the aim as articulated in the Convention text to stem the loss and degradation of wetlands, now and in the future has not been achieved during the last 50 years.

From this, several questions arise, including:

- Has the 4<sup>th</sup> Strategic Plan not been adequate to provide the support Contracting Parties need to deliver on the Convention's mission?
- Is the lack of achievement because there has been insufficient implementation of the Convention's Strategic Plan by Contracting Parties? (The subject of this analysis).
- If so, does this undermine the efficacy of a Strategic Plan to guide implementation of the Convention if it is not being sufficiently implemented?
- Or, would full implementation of the current Strategic Plan still not lead to achieving the Convention's aims, perhaps through not adequately addressing the recognised main cross-cutting drivers of wetland loss and degradation?

This analysis assesses the answers supplied by Contracting Parties in their National Reports produced for COP14. The National Reports provide answers to 101 indicator questions across the four Goals of the 4<sup>th</sup> Strategic Plan for which multiple choice Yes/No/in progress etc. answers were requested. The analysis does not include indicator questions for which numerical answers (e.g. Number of Ramsar Sites; area of wetlands etc.) were requested. The distribution of the 101 indicators questions was as follows:

- Goal 1. Addressing the drivers of wetland loss and degradation - 32 indicators
- Goal 2. Effectively conserving and managing the Ramsar Site Network - 6 indicators
- Goal 3. Wisely using all wetlands - 34 indicators
- Goal 4. Enhancing implementation - 29 indicators

Only 122 (c.71%) Contracting Parties (of a total of 172 Parties to the Convention) submitted National Reports to COP14. The analyses examine implementation extent at global and Ramsar Regional level. The analysis does not examine the implementation extent by individual Contracting Parties.

#### *Global extent of implementation*

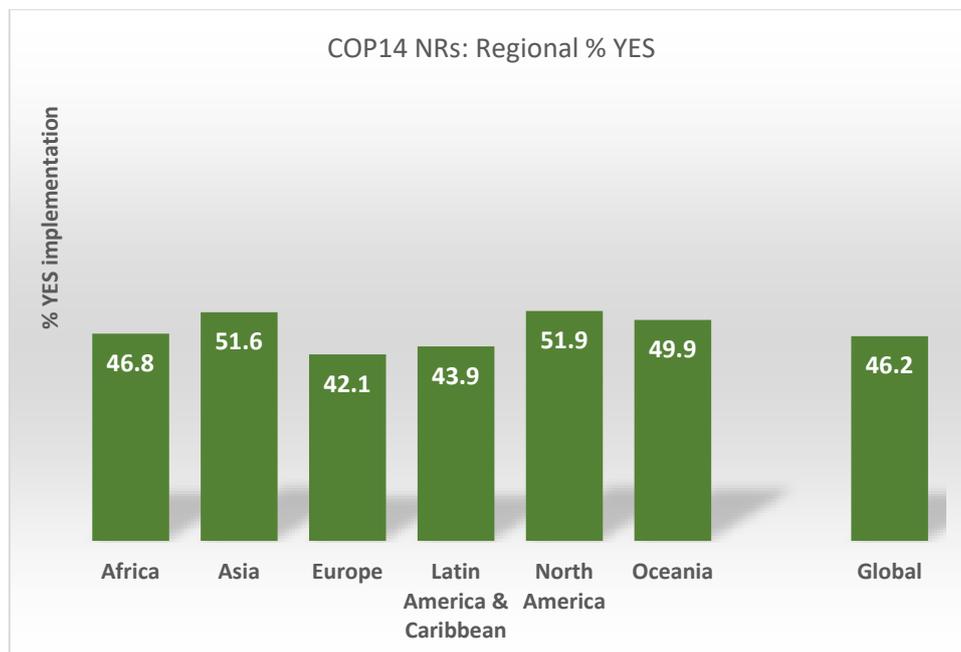
Globally across all Goals, Parties have reported implementing less than half (46.2%) of Strategic Plan actions which they have adopted (Figure 11). The responses provided by the Contracting Parties demonstrate that implementation extent did not exceed 50% for any of the four goals. Goal 4 was the most successfully implemented. The overall extent of implementation ranges from 43.6% (Goal 1) to 49.4% (Goal 4).



**Figure 11.** Extent of implementation of the 4<sup>th</sup> Strategic Plan Goals.

### *Regional differences in the extent of implementation*

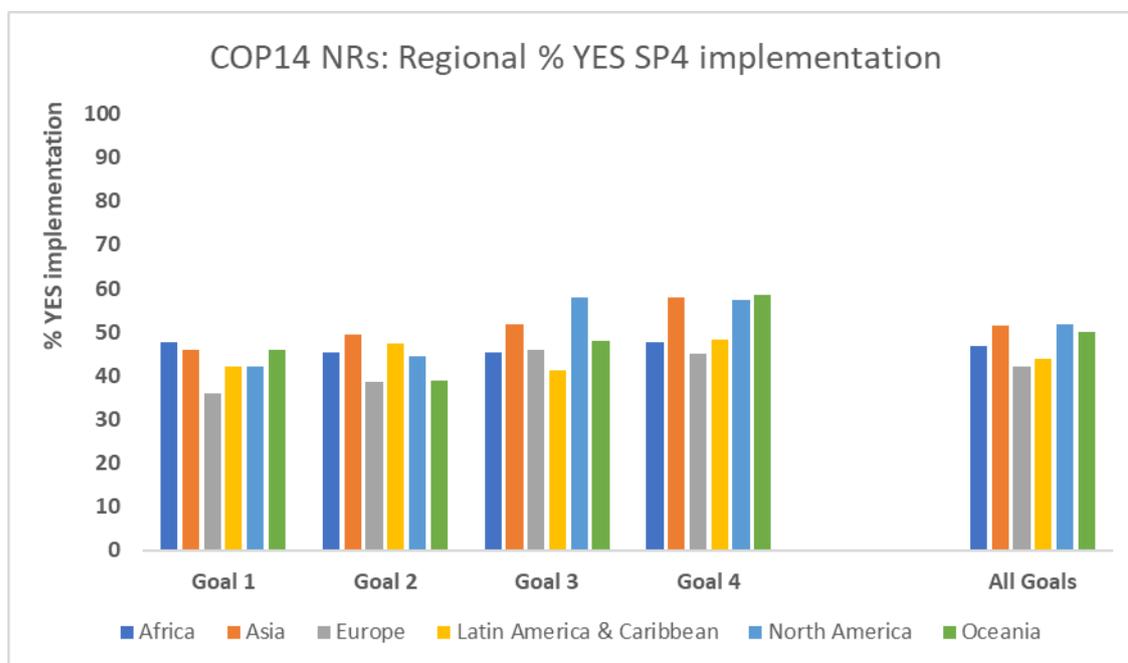
Across all four Goals, implementation extents in all Ramsar Regions are consistently low (Figure 12), ranging from only 42-52%. Perhaps surprisingly, the lowest implementation extent (42.1%) is in Europe, with that in Latin America & the Caribbean also low (43.9%). Highest implementation extents are by Parties in North America (51.9%) and Asia (51.6%) followed by Oceania (49.9%).



**Figure 12.** Extent of implementation of the 4<sup>th</sup> Strategic Plan by region.

### Extent of regional implementation across Goals

The extent of Strategic Plan implementation is broadly similar across individual Goals and regions (Figure 13). The only Goals that Contracting Parties have reported exceeding 50% implementation are for Goal 3 (Asia 51.9%; North America 57.8%) and Goal 4 (Asia 58.0%; North America 57.5%; Oceania 58.6%). The implementation of Goals 1 and 2 do not exceed 50% in any of the six regions.



**Figure 13.** Extent of implementation of the 4<sup>th</sup> Strategic Plan individual Goals by region.

### The most and least implemented Strategic Plan actions

Section 3 of the National Reports submitted to COP 14 allow Contracting Parties to respond to numerous indicator questions under the Goals and Targets described in the 4<sup>th</sup> Strategic Plan. It is possible to assess the reporting on progress on implementation through the responses provided by Contracting Parties. Table 12 summarises the most widely reported actions (those for which  $\geq 60\%$  of Parties reporting a 'yes' as their answer) as being implemented across all Goals. Table 13 summarises the least widely reported actions ( $\leq 33\%$  of Parties reporting a 'no'). Widespread implementation of the Strategic Plan is limited, with only 25 of the 101 indicators assessed reported by  $\geq 60\%$  of Parties, and only nine with  $\geq 75\%$  implementation (Table 1). The most widespread implementation reported in COP14 National Reports (Contracting Parties responded 'yes' to the indicator question) includes for:

- Awareness-raising: World Wetland Day activities (91%); other awareness-raising activities (87%); information about wetlands and Ramsar Sites made public (80%);
- Environmental Impact Assessments (EIAs) required (89%);
- Mechanisms for reporting article 3.2 (negative human-induced changes to Ramsar Site ecological character) (84%);
- Wetlands issues included in National Biodiversity Strategies and Action Plans (NBSAPs) drawn up under the CBD (84%);
- Participation in regional networks/initiatives for wetland-dependent migratory species (82%); and
- Treating wetlands as natural water infrastructure for water resource management at river basin scale (75%).

In addition, 75% of Parties reported that they had paid in full their annual Ramsar financial contributions. But worryingly that also means that 25% of Parties had not fully paid their contributions, which in turn limits the financial capacity of the Convention to support implementation activities.

As highlighted previously, the implementation of these indicators delivers exclusively outputs, usually as processes. None of these indicators relate directly to the delivery of actual wise use outcomes at the wetland site level. For instance, raising awareness of wetland issues and the Convention does not directly translate into stemming the loss and degradation of wetlands, it simply increases knowledge and understanding with an expectation (or hope) that direct action to deliver wise use will follow.

Similarly, having a mechanism in place to inform the Secretariat at the earliest possible time if the ecological character of any wetland in its territory and included in the List of Wetlands of International Importance has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference represents an administration process rather than a direct intervention to avoid, mitigate or compensate for the human-induced change, even though subsequent processes, such as Ramsar Advisory Mission, may result in more direct interventions.

The COP14 National Reports indicate very limited implementation ( $\leq 33\%$  of Parties reporting) of a considerable number (26) of 4<sup>th</sup> Strategic Plan actions. The reporting indicates that less than 20% of Contracting Parties have implemented eight of the indicator questions (Table 2).

The least widely implemented actions include:

- Wetland City Accreditation submissions (12%);
- Effectiveness of wetland invasive species control programmes (16%);
- Seven aspects of implementing action on peatlands, climate change and wise use (16-25%);
- Provision of additional voluntary financial contributions to non-core funded activities (16%); and financial contributions to support Strategic Plan implementation (25%);
- Assessment of national and local training needs for implementation (18%);

**Table 12. The most widely implemented Strategic Plan actions: COP14 National Report indicators (>60% Contracting Parties responded 'YES').** Indicators are listed in descending order of implementation extent (highest percentages first). [\* Note. National wetland inventory percentages do not make sense as Indicator 8.1 reports that only 46% of CPs report that they have a national inventory. But 64% (indicator 8.3) say wetland inventory data and information is maintained; and 62% (indicator 8.4) say inventory data and information made accessible to all stakeholders. It is not clear what is this inventory data and information is, if the CP is not reporting that it has a national wetland inventory?]

% implementation	COP14 National Report indicator	Indicator No.
91%	Have <b>Ramsar-branded World Wetlands Day activities</b> (whether on 2 February or at another time of year), either government and NGO-led or both, been carried out in the country since COP13? {4.1.8}	16.7
89%	Are <b>Environmental Impact Assessments made for any development projects</b> (such as new buildings, new roads, extractive industry) from key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture and fisheries that may affect wetlands? {1.3.4} {1.3.5} KRA 1.3.iii	13.2
87%	Have <b>campaigns, programmes, and projects (other than for World Wetlands Day-related activities)</b> been carried out since COP13 to raise awareness of the importance of wetlands to people and wildlife and the ecosystem benefits/services provided by wetlands? {4.1.9}	16.8
84%	Are <b>mechanisms in place</b> for the Administrative Authority to be <b>informed of negative human-induced changes or likely changes in the ecological character of Ramsar Sites</b> , pursuant to Article 3.2? {2.6.1} KRA 2.6.i	7.1
84%	<b>National Biodiversity Strategy and Action Plans drawn up under the CBD:</b> Have wetland conservation and the identification of wetlands benefits been integrated into sustainable approaches to the following national strategies and planning processes, including: {1.3.2} {1.3.3} KRA 1.3.i	1.1.h
82%	Does your country participate in <b>regional networks or initiatives for wetland-dependent migratory species</b> ? {3.5.3} KRA 3.5.iii	18.8
80%	Has <b>information about your country's wetlands and/or Ramsar Sites and their status been made public</b> (e.g., through publications or a website)? {3.4.2} KRA 3.4.iv	18.5
75%	Have <b>Ramsar contributions been paid in full</b> for 2018, 2019 and 2020? {4.2.1} KRA 4.2.i	17.1.a
75%	Are <b>wetlands treated as natural water infrastructure</b> integral to water resource management at the scale of river basins? {1.7.1} {1.7.2} KRA 1.7.ii	9.3
69%	Does the Contracting Party {4.1.3} KRA 4.1.iii specifically <b>involve local stakeholders in the selection of new Ramsar Sites and in Ramsar Site management</b> ?	16.3.b
69%	Has <b>research to inform wetland policies and plans</b> been undertaken in your country on: <b>valuation of ecosystem services</b>	9.7.c
68%	Is a <b>Wetland Policy (or equivalent instrument)</b> that promotes the wise use of wetlands in place? {1.3.1} KRA 1.3.i	9.1
67%	Has <b>research to inform wetland policies and plans</b> been undertaken in your country on: <b>climate change</b>	9.7.b
66%	<b>Water resource management and water efficiency plans:</b> Have wetland conservation and the identification of wetlands benefits been integrated into sustainable approaches to the following national strategies and planning processes, including: {1.3.2} {1.3.3} KRA 1.3.i	1.1.c
66%	Have you (AA) been involved in the <b>development and implementation of a Regional Initiative</b> under the framework of the Convention? {3.2.1} KRA 3.2.i	15.1
65%	<b>National Policy or strategy for wetland management:</b> Have wetland conservation and the identification of wetlands benefits been integrated into sustainable approaches to the following national strategies and planning processes, including: {1.3.2} {1.3.3} KRA 1.3.i	1.1.a
64% *	Is <b>wetland inventory data and information maintained</b> ? {1.1.2} KRA 1.1.ii	8.3
62%	<b>National policies on wastewater management and water quality:</b> Have wetland conservation and the identification of wetlands benefits been integrated into sustainable approaches to the following national strategies and planning processes, including: {1.3.2} {1.3.3} KRA 1.3.i	1.1.p
62%*	Is <b>wetland inventory data and information made accessible to all stakeholders</b> ? {1.1.2} KRA 1.1.ii	8.4
62%	Are <b>Strategic Environmental Assessment practices</b> applied when reviewing policies, programmes and plans that may impact upon wetlands? {1.3.3} {1.3.4} KRA 1.3.ii	13.1
61%	Have Communication, Education, Participation and Awareness ( <b>CEPA expertise and tools been incorporated into catchment/river basin planning and management</b> (see Resolution X.19)? {1.7.2}{1.7.3}	9.4
61%	Has <b>research to inform wetland policies and plans</b> been undertaken in your country on: <b>agriculture-wetland interactions</b>	9.7.a
61%	Are other <b>communication mechanisms</b> (apart from a national committee) <b>in place to share Ramsar implementation guidelines and other information</b> between the Administrative Authority and a), b) or c) below? {4.1.7} KRA 4.1.vi: <b>Ramsar Site managers</b>	16.6.a
60%	Have <b>priority sites for wetland restoration</b> been identified? {1.8.1} KRA 1.8.i	12.1
60%	Have all <b>transboundary wetland systems</b> been identified? {3.5.1} KRA 3.5.i	18.6

**Table 13. The least widely implemented Strategic Plan actions:** COP14 National Report indicators ( $\leq 33\%$  Contracting Parties responded 'YES'). Indicators are listed in ascending order of implementation extent (i.e. least implemented first). [\* Given that few Parties have placed Sites on the Montreux Record it is not surprising that this is a low percentage. \*\* These figures do not seem to make much sense: 16.4 cross-sectoral Ramsar Committee 46%; 16.5 other cross-sectoral body 22%; 16.6.a other sharing mechanisms Ramsar Site managers: 61%; 16.6.b other sharing mechanisms: other MEA NFPs: 49%; and 16.6.c other sharing mechanisms: other ministries, departments and agencies: 53%. Note also that these indicator questions relate mostly to only cross-sectoral Committees, but the adopted Convention guidance indicates that it is up to each CP as to the composition of their national Committee: so a simpler initial question (Do you have an operational Ramsar/Wetlands Committee?) may be preferable in future National Reports.]

% implementation	COP14 National Report indicator	Indicator No.
12%	Has your country submitted a request for Wetland City Accreditation of the Ramsar Convention, Resolution XII.10 ?	9.8
16%	Have the effectiveness of wetland invasive alien species control programmes been assessed?	4.5
16%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: Knowledge of global resources	12.3.a
16%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: Research networks, regional centres of expertise, and institutional capacity	12.3.e
16%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: Implementation and support	12.3.g
16%	Has any additional financial support been provided through voluntary contributions to non-core funded Convention activities? {4.2.2} KRA 4.2.i	17.2
18%	Has an assessment of national and local training needs for the implementation of the Convention been made? {4.1.4} KRAs 4.1.iv & 4.1.viii	19.1
19%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: Wise use of peatlands	12.3.d
20%	Has an action plan (or plans) for wetland CEPA been established? {4.1.1} KRA 4.1.i b) Sub-national level	16.1.b
21%*	If applicable, have actions been taken to address the issues for which Ramsar Sites have been listed on the Montreux Record, such as requesting a Ramsar Advisory Mission? {2.6.3} KRA 2.6.ii	7.3
22%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: Education and public awareness on peatlands	12.3.b
22%	Do you have an operational cross-sectoral body equivalent to a National Ramsar/Wetlands Committee? {4.1.6} KRA 4.3.v	16.5 **
23%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: Policy and legislative instruments	12.3.c
23%	Have all cases of negative human-induced change or likely change in the ecological character of Ramsar Sites been reported to the Ramsar Secretariat,	7.2
25%	Has the quantity and quality of water available to, and required by, wetlands been assessed to support the implementation of the Guidelines for the allocation and management of water for maintaining the ecological functions of wetlands (Resolution VIII.1, VIII.2) ? 1.24.	2.1
25%	Have the Guidelines for Global Action on Peatlands and on Peatlands, climate change and wise use (Resolutions VIII.1 and XII.11) been implemented: International cooperation	12.3.f
25%	Has any financial support been provided by your country to the implementation of the Strategic Plan?	17.6
26%	Has an action plan (or plans) for wetland CEPA been established? {4.1.1} KRA 4.1.i b) Catchment/basin level	16.1.c
27%	Does your country use a wastewater treatment process that utilizes wetlands as a natural filter while preserving the wetland ecosystem?	2.14
28%	Have assessments of environmental flow been undertaken in relation to mitigation of impacts on the ecological character of wetlands (Action r3.4.iv)	2.2
30%	Have all Ramsar sites been assessed regarding the effectiveness of their management	5.6
31%	Poverty eradication strategies: Have wetland conservation and the identification of wetlands benefits been integrated into sustainable approaches to the following national strategies and planning processes, including:	1.1.b
32%	Have ecosystem benefits/services provided by wetlands been researched in your country, recorded in documents like State of the Environment reporting, and the results promoted? {1.4.1} KRA 1.4.ii	11.1
32%	Have wetland programmes or projects that contribute to poverty alleviation objectives or food and water security plans been implemented? {1.4.2} KRA 1.4.i	11.2
33%	National policies on industry: Have wetland conservation and the identification of wetlands benefits been integrated into sustainable approaches to the following national strategies and planning processes, including: {1.3.2} {1.3.3} KRA 1.3.i	1.1.m
33%	Has your country updated a National Wetland Inventory in the last decade?	8.2

- Action plans for wetland CEPA at sub-national level (20%) and at catchment/basin level (26%);
- An operational cross-sectoral body equivalent to a National Ramsar/Wetlands Committee (22%). But note that 46% of Parties report that they have a cross-sectoral Ramsar/Wetlands Committee;
- All cases of Article 3.2 issues reported to the Secretariat (23%), but see also Table 1 above which indicates that 84% of Parties have such reporting mechanisms in place; and
- Assessment of the quantity and quality of water available to, and required by, wetlands assessed (25%).

### Summary

There is an expectation that Contracting Parties will monitor the indicators in order to track progress towards full implementation of the Strategic Plan (Bridgewater & Kim, 2021). The analyses of the COP14 National Reports suggests that degree of implementation of the 4<sup>th</sup> Strategic Plan is limited. This could be because COP14 was in November 2022, with reporting required well in advance of this. The 4<sup>th</sup> Strategic Plan covers the period from 2016-2024, therefore implementation of the various indicator activities might be in progress at the time of Contracting Parties submitting their reports, consequently implementation might be on-going. However, there would need to be a dramatic and significant uplift in implementation over the last three years of the 4<sup>th</sup> Strategic Plan to demonstrate robust implementation. It is suggested that this would be challenging for eight of the least implemented indicators. It should be noted as well that the reporting period covered the advent of the coronavirus pandemic which might have undermined the ability of governments and other stakeholders to implement the required actions.

The majority (all except for two) of indicators assess progress of the Contracting Parties in establishing 'processes' rather than in delivering 'outcomes', in terms of the wise use of wetlands. The implementation of conservation and wise use will occur, ultimately, at a wetland site level. If the ambition of establishing the processes to implement the conservation and wise use of wetlands is to develop an enabling environment then the reporting of limited progress on many of the indicators suggests that Contracting Parties are not putting in place such an enabling environment. The failure to do so will undermine the Convention's desire to stem the progressive encroachment on and loss of wetlands now and in the future.

## 5.5 Historical analyses of National Reports

Previous assessments have been undertaken of the National Reports submitted by Contracting Parties to the Convention on Wetlands. An assessment conducted by Davidson et al. (2020) compared the reported outcomes from National Reports submitted to COP11, COP12 and COP13. This assessment indicated that the degree of implementation, based on the answers provided to indicators question, by Contracting Parties varied widely from less than 10% implementation (less than 10% of Contracting Parties responded 'yes' to a specific indicator question, to greater than 80% implementation. McInnes et al. (2016) evaluated the topic of Contracting Parties assessing wetland ecosystem services in their reports to COP11. The assessment indicated that globally 38.0% of Contracting Parties had assessed the ecosystem services at Wetlands of International Importance but with regional variation with responses from Africa indicating that only 25.53% of Contracting Parties had assessed the ecosystem services at Wetlands of International Importance. The study also identified that reporting on progress in the field of reporting and assessing ecosystem services was significantly lower in low-income countries and particularly those from Africa.

The assessment of National Reports conducted by Davidson et al. (2020) also highlighted that the reported ecological character state of Wetlands of International Importance was consistently better than other wetlands. However, the time series analysis between COP11 (2011) and COP13 (2017) also indicated that, overall, the state of all wetlands had deteriorated, and that such deterioration was becoming more widespread.

## 5.6 Additional obligations since the drafting of the 4<sup>th</sup> Strategic Plan

### *Ramsar Resolution topics: COPs 12, 13 and 14*

Since the drafting of the Ramsar 4<sup>th</sup> Strategic Plan, Contracting Parties at COP12, COP13 and COP14 have adopted numerous Resolutions on different aspects of Convention implementation processes and issues. These are listed below.

Amongst these, Parties have paid new (or renewed) attention to the following issues *inter alia* concerning support for, or delivery of, wetland conservation and wise use:

- Communication, Education, Participation and Awareness (CEPA) – COP12, COP14
- Peatlands and climate change – COP12
- Water requirements for wetlands – COP12
- Disaster risk reduction – COP12
- Management effectiveness of Ramsar Sites – COP12
- Identification of peatlands as Ramsar Sites for climate regulation – COP13
- Restoration of peatlands – COP13
- Coastal blue-carbon ecosystems (climate change) – COP13
- Indigenous peoples and local communities' contribution to climate mitigation – COP13
- Sustainable urbanisation – COP13
- Assessing wetland ecosystem services – COP13
- Gender – COP13
- Sustainable agriculture – COP13
- Intertidal wetlands – COP13
- Small wetlands – COP13, COP14
- Coastal marine turtle habitats - COP13
- Wetland City Accreditation – COP14
- Youth – COP14
- National sustainable development strategies – COP14
- Wetland ecosystem management for addressing climate change – COP14
- Waterbird population estimates

Over the same time period, Contracting Parties have also paid attention to wetland conservation and wise use in certain geographic regions through adoption of region-specific resolutions:

- Mediterranean Basin island wetlands – COP12
- West Asia – COP13
- Arctic and sub-Arctic – COP13

A full list of the adopted resolutions is provided in Appendix 2. It is assumed that the adoption, usually through negotiated and consensual means, of the provisions contained in the various resolutions indicates an ambition by Contracting Parties to implement the matters arising. The implementation of these new commitments could occur in a vacuum, but it is assumed that the

Contracting Parties would be interested in whether these new resolutions are being implemented and achieving their desired outcomes. To achieve this, therefore, through adoption of further commitments since the drafting of the 4<sup>th</sup> Strategic Plan, the contracting Parties have *de facto* increased their potential reporting burden. The implications of these new resolutions need to be considered in the construction of the 5<sup>th</sup> Strategic Plan.

## 5.7 Implications for the 5<sup>th</sup> Strategic Plan

The analyses conducted on the implementation of the 4<sup>th</sup> Strategic Plan and historically reveal that the Convention is not only failing to implement its adopted provisions but it is also failing to stem the degradation and loss of wetlands across the world. Since the 4<sup>th</sup> Strategic Plan was drafted, the Contracting Parties have continued to increase the number and type of provisions through the adoption of further resolutions. This has happened whilst the implementation of processes, designed to underpin the achievement of wetland conservation and wise use, is demonstrably not being achieved. This leads *inter alia* to three fundamental questions:

- Have historical strategic plans been fit for purpose or have they pursued too many objectives at the expense of being genuinely ‘strategic’?
- Has the historical focus on ‘process’ indicators rather than ‘outcomes’ reduced the effectiveness of the Convention?
- Why have Contracting Parties failed to deliver on their commitments?
- If the past evidence provides a window into the future, how likely is it that another Strategic Plan will deliver on the mission of the Convention?
- Therefore, how can the 5<sup>th</sup> Strategic Plan be more effective?

Consideration of these questions is required in the articulation and drafting of the 5<sup>th</sup> Strategic Plan. There is a clear need to be able to track the progress in reporting and implementation across time to evaluate the success (or otherwise) of the Convention, but this needs to be grounded in the need to avoid ‘mission creep’ (Bridgewater & Kim, 2021) and to manage the reporting burden for Contracting Parties.

## 6 Synthesis

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### KEY MESSAGES

- Appropriate consideration is needed in aligning targets with other inter-governmental processes.
- There is strong and mutually supporting evidence of the direct drivers of wetland degradation and loss.
- Agricultural practices, urban pollution, invasive species and hydrological mismanagement are the main direct drivers of wetland degradation.
- Land conversion for agriculture, urban and infrastructure development are the main direct drivers of wetland loss.
- There are a range of key solutions that need to be applied widely to help stem wetland degradation and loss.
- The development and implementation of solutions needs to be context-specific at the site level.
- The Convention on Wetlands needs to understand the reasons behind the limited implementation of the 4<sup>th</sup> Strategic Plan.
- The Convention's Centres, Initiatives and partners should be utilised to assist implementation at a site level.

#### 6.1 Introduction

As described in Figure 1, it is necessary to bring together the findings from the consultation and engagement processes with the results of the policy and document review. The assessment of these findings provides a robust evidence base upon which the content and structure of SP5 can be based. From this analyses it is possible to synthesise key messages.

#### 6.2 A changing policy landscape

Global and national policies evolve over time producing a dynamic landscape. Since the drafting of the 4<sup>th</sup> Strategic Plan, the Sustainable Development Goals (SDGs), the Paris Agreement on Climate Change and the GBF have all been adopted. Through Resolution XIV.16, Contracting Parties and other stakeholders and partners are encouraged or invited to continue to increase their efforts to strengthen cooperation, coordination and synergies among these various initiatives. All of these policy agreements have built, to a greater or lesser extent, on previous policies, treaties or frameworks. There is a tendency in previous Strategic Plans adopted by the Convention on Wetlands to align with the prevailing intergovernmental initiatives. Whilst there is undoubtedly sound sense underpinning this approach, not least to ensure that the actions of the Convention are current, to reflect the provisions in adopted resolutions and to reduce the reporting burden on Contracting Parties, the question remains does such an approach demonstrably deliver on the Convention's desire to stem the progressive encroachment on and loss of wetlands now and in the future? Furthermore, by aligning with an external policy driver is success guaranteed? When the progress on the CBD's Aichi Targets is considered, of which only six targets were partially achieved and the remaining 14 were not achieved including Target 5 relating to the loss of natural habitats (Secretariat of the Convention on Biological Diversity, 2020), it suggests that such alignment is not necessarily a pathway to success for the Convention on Wetlands. Additionally, when the global

state of wetlands is considered, it is also clear that the historical approach of seeking alignment is not achieving the Convention's mission.

The GBF supports the achievement of the SDGs and sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. The Convention is the co-custodian of Indicator 6.6.1 under Target 6.6 of the SDGs. The target states that '*by 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes*'. Under the visual summary of Goal 6, the 2023 SDG Report states '*81% of species dependent on inland wetlands have declined since 1970*'. Overall progress against Goal 6 is reported (as of 2023) to be approximately 60% moderately or severely off track and approximately 40% stagnations or regression. The Target areas of stagnation or regression are water quality, water-related ecosystems (wetlands) and international co-operation on water and sanitation. It could be argued that by aligning with Target 6.6 the Convention on Wetlands is on course to fail and suggests, as with the Aichi Targets, that such alignment may not be necessary for success and might limit ambition.

There are opportunities to align with the GBF and the Convention is currently undertaking activities to investigate synergies and to provide support (for instance under the STRP's Task 5.2 *Guidance to support global implementation of Kunming-Montreal GBF for wetlands*). Further consultation is planned between members of the STRP and the consultants assisting with the development of SP5. A key issue to consider is whether the primary focus of the Convention is to deliver on the conservation and wise use of wetlands as a means of supporting implementation of the GBF, or whether the Convention is aligning with delivery of GBF targets as means to deliver conservation and wise use of wetlands. Whilst the difference is subtle, the question that needs to be considered is should the Convention aim to deliver on its own targets under SP5 as a priority, which could still support delivery of GBF targets, rather than aim to deliver fully against GBF targets? Given that Resolution XIV.16 reaffirms the importance of enhancing cooperation and synergies in the implementation of the Convention on Wetlands, the Rio Conventions and other multilateral environmental agreements (MEAs), at the global, regional and national levels in a manner fully consistent with their mandates and priorities, it is suggested that emphasis should be on the Convention on Wetlands to deliver against its own strategic targets.

### 6.3 Issues of convergence

#### *Drivers of wetland degradation and loss*

The evidence provided in this report is clear. Wetland degradation and loss proceeds at pace across the globe. The main direct drivers of the chronic and pervasive degradation are agricultural practices, urban pollution, invasive species and hydrological mismanagement. This invidious degradation is accelerated to complete and absolute loss of wetlands primarily by land conversion for agriculture, urban development and infrastructure. The results of the consultation and engagement reflect the findings from the literature to strongly support this case. Rates of wetland loss and degradation are greatest in Africa and Latin America & the Caribbean and particular attention is needed within these regions.

There are a range of ultimate drivers that underpin the direct drivers of wetland loss. The most influential of these is climate change. There is a perversity to this given that wetlands have such a critical role to play in climate change mitigation and adaptation and the positive feedback loops that exist between the conservation and wise use of wetlands and the changing climate. However, under current climate projections, the impact of climate change on wetlands could be significant

(Xi et al., 2021). The consultation has highlighted a range of further ultimate drivers, that whilst beyond the purview of the Convention on Wetlands, need to be taken into account and addressed through cross-sectoral approaches. These ultimate drivers include human population growth, poor governance, lack of political will, unsustainable economic growth, socio-economic inequality and vulnerability and criminality and corruption.

### *Solutions for conservation and wise use of wetlands*

The findings in the peer-reviewed literature and the outputs of the consultation have identified a set of solutions that, if applied in the correct context and aligned to address a particular driver of wetland degradation and loss, offer appropriate means to maintain the ecological character of the world's remaining wetlands. The key solutions identified are:

- The implementation of effective conservation management measures at a site level;
- The involvement and empowerment of local communities at a site level;
- Raising the awareness of and support to communities living and working in and around wetlands;
- Ensuring sound scientific knowledge (and complemented where appropriate with Indigenous and local science and knowledge) is used in decision-making; and
- Designating wetlands as protected areas, where appropriate, and within the local context.

With the exception of the application of sound knowledge, which can be applied a multiplicity of scales, all these solutions operate and are effective at the site level. If prioritised, the evidence suggests that these solutions have the greatest potential of stemming the degradation and loss of wetlands.

## 6.4 Issues of divergence

### *Drivers of wetland degradation and loss*

Rates of wetland loss and degradation are greatest in Africa and Latin America & the Caribbean. There is an argument that conservation and wise efforts should target these regions. However, wetland degradation and loss continue across all regions only at different rates as well as for countries with different economic status. The main drivers of wetland degradation remain universal. There are some subtle differences at the region and within-region level. Addressing such differences within a strategic plan for a global convention is challenging but it may be possible to align support more clearly to need, possibly through capacity building of knowledge exchange programmes, within wider Convention processes.

### *Solutions for conservation and wise use of wetlands*

The main effective solutions are universal. However, in the regions where the role of Indigenous People and local communities in securing the conservation and wise use of wetlands is critical, the Convention needs to facilitate and support this happening. Similarly, where gender plays a critical role in wetland management, the Convention needs to mainstream a gender perspective in its implementation, considering the crucial role of women, including indigenous and local women, in the provision, management and safeguarding of wetlands. Furthermore, implementation of the Convention needs to recognize the importance of engaging with young people to build intergenerational capacity and enhance wise and sustainable use and management of wetlands. The key issue with regards to the development and application of solutions is to ensure that the solution is mindful of the previous elements and is appropriate to address the driver of wetland degradation and loss.

## 6.5 Effectiveness of and opportunities for the Convention on Wetlands

The mid-term review of COP13 National Reports and the assessment of COP14 National Reports presents a worrying picture of limited implementation at both the global and national levels of all the Goals and Targets in the 4<sup>th</sup> Strategic Plan. This failure to implement the Strategic Plan is set against a backdrop of on-going and accelerating wetland degradation and loss across the globe.

Defining the counterfactual conditions to assess the trajectory of wetlands and their dependent species without the interventions achieved through the implementation of actions, objectives or targets through the Convention's four Strategic Plans is challenging (Bull et al., 2021). However, there is evidence that without the actions undertaken by governments, non-governmental organisation and other interested and dedicated parties, the state of the world's wetlands would be considerably poorer. The counterfactual of no interventions suggests that some actions, such as designating protected areas, have benefitted threatened wetland species, such as wet grassland breeding bird populations (Jellesmark et al., 2021), and species abundance and diversity more generally (Gray et al., 2016).

Finlayson et al. (2011) posed and then answered the following question, namely 'Would the state of the world's wetlands be worse if it had not been for these intergovernmental processes and the worldwide efforts to implement them?' The answer was 'Initial findings indicate that those countries that report better implementation are also reporting that their wetlands are in a relatively better state. In particular, this appears to be the case for countries that have established national policy/legislative frameworks and that are undertaking a wide range of implementation activities both nationally and on-the-ground.' On this basis, active implementation of the Strategic Plan actions can be seen to have had benefits. However, the Convention is very dependent on the effectiveness of national implementation. Without robust national implementation the Convention could be seen as being ineffective.

There is also a challenge in the language used in the 4<sup>th</sup> Strategic Plan to define indicators. The majority of the indicators relate to processes. For instance, the four indicators under Target 7 'Sites that are at risk of change of ecological character have threats addressed' all relate to reporting processes under the Convention. The assumption is that a positive report, such as a reduction in the number of Parties submitting Article 3.2 reports, equates to the ecological character of site being maintained. However, there is no need to provide evidence that the ecological character has actually changed and a positive change has been achieved at a site, and therefore a positive conservation and wise use outcome has been delivered. The success or the failure of the indicator solely responds to a reporting mechanism. Ultimately, the conservation and wise use of wetlands is about outcomes delivered through appropriate processes, usually at a site level. The balance between process and outcome indicators within the 4<sup>th</sup> Strategic Plan is not achieved and is strongly skewed to processes.

A key consideration in the development of targets and indicators for SP5 is 'are there critical elements of the process that should be given higher priority than others as there is a stronger potential for these to deliver on the outcome?' The evidence presented in this report suggest that certain processes, such as developing and implementing robust conservation management measures, raising local community awareness and understanding cultural values and traditions can all lead directly to positive wetland conservation outcomes.

Opportunities have been identified to utilise Convention initiatives more fully to assist Contracting Parties and stakeholders in implementing positive actions. There is great potential to utilise the

resource available through Ramsar Regional Centres and Initiatives, or through groups such as Youth Engaged in Wetlands and the IOPs, to support and enhance implementation of the Convention at the region, national and site level. Links to on-the-ground and grass-root wetland conservation organisations which are often embedded at the local community level should be encouraged by national governments in a collaborative and mutually supportive manner to enhance implementation of wise use principles.

Several of the critical solutions identified are within the communication, capacity building, education participation and awareness (CEPA) domain, such as raising local community awareness. There is an opportunity to have targeted CEPA activities as specific elements integrated within the strategic plan. Such an approach would align with the new approach to CEPA adopted through Resolution XIV.8.

## 7 Recommendations for the 5<sup>th</sup> Strategic Plan

### 7.1 The context of the Convention's Strategic Plans

Resolution 5.1 (1993) adopted the *Kushiro Statement* which provided a framework for the implementation of the Ramsar Convention. This document set out the three elements of the Convention, and the commitments of the Contracting Parties but was largely focussed on setting out a framework for the work of the then Bureau. As such it is more of a framework document than a genuinely strategic document.

The Convention on Wetlands adopted its first strategic plan through Resolution VI.14 (1996) Strategic Plan 1997-2002 as the basis for the implementation of the Convention. Subsequently, the Convention has adopted the following three plans:

- Resolution VIII.25 (2002) adopted the 2<sup>nd</sup> Strategic Plan 2003-2008
- Resolution X.1 (2008) adopted the 3<sup>rd</sup> Strategic Plan 2009-2015
- Resolution XII.2 (2016) adopted the 4<sup>th</sup> Strategic Plan 2016-2024

Bridgewater & Kim (2021) provide a summary of development of the four historical strategic plans. They highlight that the strategic plans have evolved and changed over time (Table 14). Both the structure and contents of the four historical plans have changed substantially over time. Similarly, the length of the plans has varied greatly, some with a very limited preamble, others with a substantial introductory text. Therefore, the desire expressed by some Contracting Parties to maintain consistency with the previous (4<sup>th</sup>) plan to ensure temporal trends in implementation can be tracked is potentially illusory. The tracking of implementation over time is delivered through the National Reporting rather than the strategic plans.

**Table 14.** Summary of details of historical Strategic Plans.

Number of Plan	1	2	3	4
Resolution (year)	Resolution VI.14 (1996)	Resolution VIII.25 (2002)	Resolution X.1 (2008)	Resolution XII.2 (2016)
Duration (years)	1997-2002 (6)	2003-2008 (6)	2009-2015 (6)	2016-2024 (9)
Vision	None	None	None	Yes
Structure	8 General Objectives	5 General Objectives	5 Goals	4 Goals
	27 Operational Objectives	21 Operational Objectives	28 Strategies	19 Targets
	125 Actions	177 Actions	78 Key Result Areas	Multiple indicators
Number of pages	22	55	18	49

There is a fundamental question that requires asking: what is a strategic plan? Strategic planning has been defined as a '*deliberative, disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why*' (Bryson 2011). Additionally, in the context of the Convention on Wetlands, a strategic plan should be time-bound. As the longest established multi-lateral environmental agreement, the Convention on Wetlands is an intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources for 172 Contracting Parties (as of January 2024). Based on the current Convention text, the desire of the Convention is to stem the progressive encroachment on and loss of wetlands now and in the future. The mission of the Convention articulates this desire as (Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Ramsar (Iran), 1971):

*“the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.*

This is what the Convention does, or rather should do. The reason why the Convention desires to undertake this challenge is articulated in the Convention text as:

*“RECOGNIZING the interdependence of Man and his environment;*

*CONSIDERING the fundamental ecological functions of wetlands as regulators of water regimes and as habitats supporting a characteristic flora and fauna, especially waterfowl;*

*BEING CONVINCED that wetlands constitute a resource of great economic, cultural, scientific, and recreational value, the loss of which would be irreparable;*

*RECOGNIZING that waterfowl in their seasonal migrations may transcend frontiers and so should be regarded as an international resource”.*

This is why the Convention exists. The development of a strategic plan should take into account what the Convention is, what it does (or should be doing) and why it is undertaking actions. All historical plans have been time-bound (even if the duration of individual plans has varied). Since 1980 (COP1) the Contracting Parties have adopted over 300 recommendations, decisions and resolutions. The majority of these remain extant as adopted provisions. Since the drafting of the 4<sup>th</sup> Strategic Plan, Contracting Parties at COP12, COP13 and COP14 have adopted more than 50 Resolutions on different aspects of Convention implementation processes and issues. These are listed in Appendix 2. Amongst these existing provisions, Contracting Parties have paid new (or renewed) attention to the following issues *inter alia* concerning support for, or delivery of, wetland conservation and wise use of all, or particular kinds of, wetlands (see Section 5.6). Parties have also paid attention to wetland conservation and wise use in certain geographic regions such as the Mediterranean Basin and West Asia.

The role of the strategic plan should not be to reiterate the extant commitments made by Contracting Parties or even emphasise those adopted since the previous plan was drafted, rather it should be *strategic* insofar that it should articulate the priority actions that the Convention should seek to deliver on, over a fixed time period, to maximise the effectiveness of achieving its mission of the conservation and wise use of all wetlands.

## 7.2 Priorities

The undoubted priority for SP5 is to stem the degradation and loss of wetlands. To achieve this, the implementation of the effective solutions highlighted in this report should be prioritised. Without these prioritised interventions the ambition of the Convention to contribute to the delivery of broader intergovernmental processes is highly unlikely to be achieved. SP5 should also prioritise the delivery of outcomes, manifest as the effective conservation and wise use of wetlands, rather than processes.

## 7.3 Recommendations for 5<sup>th</sup> Strategic Plan

This report has synthesised information from more than 100 publications, has evaluated more than 1,000 responses to an online questionnaire survey and engaged directly with in excess of 200

people through various fora. This process has generated a significant evidence base to inform the development of SP5. Based on the review contained in this report, the following recommendations are proposed to assist in the development of SP5:

- Limit the length of the preambulatory text.
- Ensure consistency in reporting is maintained for key metrics so that implementation over time can be tracked.
- Maintain the Goals-Targets-Indicator construct but consider including actions between targets and indicators to describe the delivery mechanisms.
- Ensure that the goals are not subservient to each other and that they reflect the targets.
- Prioritise addressing both the critical direct drivers of wetland degradation and direct drivers of wetland loss.
- Focus on and prioritise the effective interventions that deliver on the mission of the Convention in a strategic manner and avoid redundancy and duplication.
- Link and integrate explicit, high priority CEPA activities to Targets.
- Consider focussing on the indicators that monitor wise use and conservation outcomes rather than processes.
- Optimise synergies with other MEAs and reporting mechanisms without aligning to a wider target beyond the control of the Convention.
- Agree on a time limit for the plan.

#### 7.4 Structure of the 5<sup>th</sup> Strategic Plan

The structure and content of SP5 is still work in progress. Pending discussions with STRP, the structure of SP5 is still being developed. As agreed with the SP5WG, a working draft structure including the goals, targets and indicators will be shared on the 26<sup>th</sup> January 2024. These will be revised following STRP26 to ensure that they align with the work of the Panel. The outcome of this process will be a more robust set of goals, targets and indicators. Following consultation with STRP, a revised structure for SP5 will be shared with the Co-Chairs of the SP5WG.

## 8 References

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## Appendix 1 - Online Questionnaire

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### *Background*

The Strategic Plan is the key document guiding implementation of the Convention on Wetlands. It sets priorities to inform the activities of Contracting Parties, the work program of the Secretariat, and the support provided by other bodies of the Convention such as the Scientific and Technical Review Panel (STRP) and the International Organization Partners (IOPs). The Convention is currently working under the 4<sup>th</sup> Strategic Plan which runs until 2024.

The Convention's Strategic Plan Working Group has the mandate to lead on the preparation of a draft 5<sup>th</sup> Strategic Plan for consideration at the next Conference of the Parties in 2025 (COP15). Following guidance from the Conference of the Parties, the Strategic Plan Working Group is committed to a process that is inclusive, transparent and accessible to enable full and effective participation of all interested Contracting Parties, partners and stakeholders.

This questionnaire is an initial step in the consultation and engagement process in order to inform the content and direction of the 5<sup>th</sup> Strategic Plan.

More information on the development of the 5<sup>th</sup> Strategic Plan is available at:

<https://www.ramsar.org/fifth-strategic-plan>

### *Instructions*

Please answer each question on the basis of either your own knowledge if you are completing the questionnaire as an individual, or on the basis of the organisation that you are representing.

It is anticipated that questionnaire will take less than 10 minutes to complete.

All answers will be treated anonymously and in confidence.

Thank you in advance for your co-operation and input.

Q1. Please select one category that best describes yourself or your organisation	Go to:
a. National Government Department /Ministry	Q1a
b. Regional Government Department / Ministry	Q1b
c. Local Government Department	Q1c
d. Inter-governmental Organisation (IGO)	Q1d
e. Non-governmental Organisation (NGO)	Q1e
f. Civil Society Organisation (CSO)	Q1f
g. Company or business	Q1g
h. Indigenous people or ethnic minority	Q2
i. Local community	
j. Wetland Site Manager	
k. Wetland Site Staff	
l. Private landowner	
m. Academic or research	
n. Natural resource user (fish or shellfish harvester, natural medicine collector, etc.)	
o. Educator or environmental interpreter	
p. Private citizen	
q. Other	

Q1a. Please select one of the following that best describes your Department or Ministry	Go to:
Environment	Q2
Water	
Agriculture	
Mining	
Education	
Culture	
Fisheries	
Forestry	
Tourism	
Sport	
Planning	
General administration	
Interior	
Health	
Finance or Treasury	
Trade	
Transport	
Other	

Q1b. Please select one of the following that best describes your Department or Ministry	Go to:
Environment	Q2
Water	
Agriculture	
Mining	
Education	
Culture	

Fisheries	
Forestry	
Tourism	
Planning	
General administration	
Interior	
Health	
Finance or Treasury	
Transport	
Heritage preservation	
Other	

Q1c. Please select one of the following that best describes your Department	Go to:
Environment	Q2
Water	
Agriculture	
Mining	
Education	
Culture	
Fisheries	
Forestry	
Tourism	
Planning	
General administration	
Health	
Finance or Treasury	
Transport	
Heritage Preservation	
Other	

Q1d. Please select one of the following that best describes your IGO	Go to:
United Nations organisation	Q1di
Multilateral Environmental Agreement or Institution (UN or other)	Q1dii
Regional IGO	Q2
Other	

Q1di. Please specify which best describes your UN organisation	Go to:
Food and Agriculture Organization (FAO)	Q2
United Nations Human Rights Council (UNHRC)	
United Nations Development Programme (UNDP)	
United Nations Educational, Scientific and Cultural Organisation (UNESCO)	
United Nations Environment Programme (UNEP)	
United Nations Framework Convention on Climate Change (UNFCCC)	
United Nations Human Settlements Programme (UN-Habitat)	
United Nations Office for Disaster Risk Reduction (UNSDR)	
World Health Organization (WHO)	
World Meteorological Organization (WMO)	

World Tourism Organization (WTO)	
Other	

Q1dii. Please select one of the following that best describes your IGO	Go to:
Convention on Wetlands (Ramsar Convention)	Q2
Convention on Biological Diversity (CBD)	
Convention on the Conservation of Migratory Species (CMS)	
The Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES)	
The Convention to Combat Desertification (UNCCD)	
The International Treaty on Plant Genetic Resource for Food and Agriculture (ITPGRFA)	
The International Plant Protection Convention (IPPC)	
The World Heritage Convention (WHC)	
Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention)	
Coordinating Unit of the Mediterranean Action Plan of the Secretariat of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention)	
Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention)	
The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)	
The Conservation of Arctic Flora and Fauna Working Group of the Arctic Council (CAFF)	
Other	

Q1e. Please select one of the following that best describes the main activities of your NGO	Go to:
Wetland specific	Q2
Environment	
Nature conservation and biodiversity	
Water	
Food	
Health	
Gender	
Religion	
Agriculture	
Poverty	
Civil and human rights	
Animal welfare	
Education and awareness raising	
Culture	
Heritage preservation	
Research	
Other	

Q1f. Please select one of the following that best describes the main activities of your CSO	Go to:
Wetland specific	Q2
Environment	
Nature conservation and biodiversity	
Water	
Food	
Health	

Gender	
Religion	
Agriculture	
Poverty	
Civil and human rights	
Animal welfare	
Education	
Culture	
Heritage preservation	
Research	
Other	

<b>Q1g. Please select one of the following that best describes your business sector</b>	<b>Go to:</b>
Agriculture for food production	Q2
Agriculture for fuel production	
Health	
Mining or extractive	
Transport	
Tourism	
Forestry	
Fisheries	
Livestock	
Manufacturing	
Sport	
Engineering	
Environment	
Art (handicraft etc.)	
Legal	
Energy	
Other	

<b>Q2. Please select one category that best describes the spatial context of yourself or your organisation</b>	<b>Go to:</b>
International – global	Q3
International – regional	Q2a
International – sub-regional	Q2b
National	Q2c
National-sub-regional	
Local	Q2c
Other	Q3

<b>Q2a. Please select one category that best describes the regional spatial context of yourself or your organisation</b>	<b>Go to:</b>
Africa	Q3
Asia	
Europe	
North America	

Latin America and the Caribbean	
Oceania	
Other	

Q2b. Please select all the countries that are included in the sub-regional spatial context	Go to:
Drop down list of countries	Q2d

Q2c. Please select the one country that describes the spatial context of yourself or your organisation	Go to:
Drop down list of countries	Q2d

Q2d. Please select which region your national or local organisation falls within	Go to:
Africa	Q3
Asia	
Europe	
North America	
Latin America and the Caribbean	
Oceania	
Other	

<b>Q3.</b> Before receiving this questionnaire, were you aware of the Convention on Wetlands (sometimes called the 'Ramsar Convention')?	Go to:
Yes	Q3a
No	Q3b

Q3a. Please select the one category that best describes how you are aware of the Convention on Wetlands	Go to:
I am or have been a National Focal Point	Q3b
I am or have been a Site Manager of a wetland of international importance	
I am or have been a Site Manager of another category of wetland	
I am or have been a member of the Convention's Scientific and Technical Review Panel	
I am or have been actively involved in a Convention's Regional Initiative or Centre	
I am or have been a member of the Convention's Secretariat	
I am or have been a member of another body of the Convention	
I am or have been involved in a wetland-related organization (IGO/NGO/CSO)	
I am or have undertaken research into wetlands	
I am or have been aware due to a regulatory or legislative context	
I am or have been aware through public engagement, consultation or awareness raising activities	
I am or have been aware through being a mayor/municipal government	
Other	

Q3b. Are you aware of Convention on Wetlands' current 4 <sup>th</sup> Strategic Plan?	Go to:
Yes	Q3c
No	

Q3c. Are you aware that the Convention on Wetlands is developing a 5 <sup>th</sup> Strategic Plan?	Go to:
Yes	Q3d
No	

Q3d. Are you actively involved in delivering wetland conservation and wise use?	Go to:
Yes	Q3e
No	

Q3e. Do you understand how your activities impact on wetlands	Go to:
Yes	4
No	

Q4. In your opinion, which of the following drivers (causes) are influencing the current state of wetlands? (Please check each relevant box)				Go to:
<i>Drivers</i>	<i>Negative</i>	<i>Positive</i>	<i>Not relevant / Unknown</i>	
Conservation management measures				Q5
Local community awareness				
Cultural values / traditions				
Industrial development/infrastructure				
Urban development/infrastructure				
Transport (road, rail, ports) development				
Tourism				
Forestry				
Agricultural intensity				
Agricultural run-off				
Urban/industrial pollution				
Land privatisation				
Water abstraction				
Drainage				
Damming / channelisation / water regulation				
Changing salinity				
Erosion				
Siltation				
Mining of aggregates, sand, silt, etc.				
Mining of minerals, gold, copper, etc.				
Oil and gas exploration and production				
Fracking				
Drought / desertification				
Aquaculture				
Disease				
Fishing				
Hunting				
Introduced / invasive species				
Wind and solar energy production				
Climate change or climate variation?				
Aerial eradication of illicit crops				
Armed conflicts				
Other (specify below)				
Do not feel qualified to answer				

<b>Q5. In your opinion, which of the following solutions or interventions most strongly positively influence the conservation and wise use of wetlands?</b>						<b>Go to:</b>
<i>Solutions</i>	Low				High	
	1	2	3	4	5	
Conservation management measures						Q6
Designating wetland protected areas						
Raising local community awareness						
Local community involvement and empowerment						
Understanding and incorporating cultural values and traditional knowledge						
Robust and integrated legislation, policies and planning						
Good scientific understanding of wetlands						
Environmental education						
Reduced corruption						
Allocation of rights to wetlands						
Greater financial resources for management						
Demonstrating the importance of wetlands for human society						
Monetary valuation of the benefits provided by wetlands						
Enforcement of laws and regulations						
Wetland mapping and inventories						
Training and capacity building						
Good guidance and information for national and local governments						
Good guidance and information for site managers						
Other						
Do not feel qualified to answer						

<b>Q6. Would you like to be kept informed about the development of the 5<sup>th</sup> Strategic Plan of the Convention on Wetlands (sometimes called the 'Ramsar Convention')?</b>	<b>Go to:</b>
Yes	Q7
No	END

<b>Q7. Please provide your email address below (all responses will be treated confidentially)</b>	<b>Go to:</b>
	END

## Appendix 2 - Resolutions: COP12, COP13 & COP14

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### *COP12 (2015)*

Resolution XII.2: The Ramsar Strategic Plan 2016-2024

Resolution XII.3: Enhancing the languages of the Convention and its visibility and stature, and increasing synergies with other multilateral environmental agreements and other international institutions

Resolution XII.5: New framework for delivery of scientific and technical advice and guidance on the Convention

Resolution XII.6: The status of Sites in the Ramsar List of Wetlands of International Importance

Resolution XII.8: Regional initiatives 2016-2018 in the framework of the Ramsar Convention

Resolution XII.9: The Ramsar Convention's Programme on communication, capacity building, education, participation and awareness (CEPA) 2016-2024

Resolution XII.10: Wetland City Accreditation of the Ramsar Convention

Resolution XII.11: Peatlands, climate change and wise use: Implications for the Ramsar Convention

Resolution XII.12: Call to action to ensure and protect the water requirements of wetlands for the present and the future

Resolution XII.13: Wetlands and disaster risk reduction

Resolution XII.14: Conservation of Mediterranean Basin island wetlands

Resolution XII.15: Evaluation of the management and conservation effectiveness of Ramsar Sites

### *COP13 (2018)*

Resolution XIII.1: World Wetlands Day

Resolution XIII.3: Governance of the Convention

Resolution XIII.5: Review of the fourth Strategic Plan of the Ramsar Convention

Resolution XIII.6: Language strategy for the Convention

Resolution XIII.7: Enhancing the Convention's visibility and synergies with other multilateral environmental agreements and other international institutions

Resolution XIII.8: Future implementation of scientific and technical aspects of the Convention for 2019-2021

Resolution XIII.9: Ramsar Regional Initiatives 2019-2021

Resolution XIII.10: Status of Sites in the Ramsar List of Wetlands of International Importance

Resolution XIII.11: Ramsar Advisory Missions

Resolution XIII.12: Guidance on identifying peatlands as Wetlands of International Importance (Ramsar Sites) for global climate change regulation as an additional argument to existing Ramsar criteria

Resolution XIII.13: Restoration of degraded peatlands to mitigate and adapt to climate change and enhance biodiversity and disaster risk reduction

Resolution XIII.14: Promoting conservation, restoration and sustainable management of coastal blue-carbon ecosystems

Resolution XIII.15: Cultural values and practices of indigenous peoples and local communities and their contribution to climate-change mitigation and adaptation in wetlands

Resolution XIII.16: Sustainable urbanization, climate change and wetlands

Resolution XIII.17: Rapidly assessing wetland ecosystem services

Resolution XIII.18: Gender and wetlands

Resolution XIII.19: Sustainable agriculture in wetlands (Corrected on 15 February 2019 by addition of footnote)

Resolution XIII.20: Promoting the conservation and wise use of intertidal wetlands and ecologically-associated habitats

Resolution XIII.21: Conservation and management of small wetlands  
Resolution XIII.22: Wetlands in West Asia  
Resolution XIII.23: Wetlands in the Arctic and sub-Arctic  
Resolution XIII.24: The enhanced conservation of coastal marine turtle habitats and the designation of key areas as Ramsar Sites

#### **COP14 (2022)**

Resolution XIV.3: The effectiveness and efficiency of the Convention on Wetlands  
Resolution XIV.4: Review of the fourth Strategic Plan of the Convention on Wetlands, additions for the period COP14-COP15 and framework for the fifth Strategic Plan  
Resolution XIV.5: Review of Resolutions and Recommendations of the Conference of the Contracting Parties  
Resolution XIV.6: Enhancing the Convention's visibility and synergies with other multilateral environmental agreements and other international institutions  
Resolution XIV.7: Ramsar Regional Initiatives  
Resolution XIV.8: The new CEPA approach  
Resolution XIV.9: The Ramsar Wetland Conservation Awards  
Resolution XIV.10: Updating the Wetland City Accreditation of the Convention  
Resolution XIV.11: Wetland education in the formal education sector  
Resolution XIV.12: Strengthening Ramsar connections through youth  
Resolution XIV.13: The status of Sites in the List of Wetlands of International Importance  
Resolution XIV.14: Future implementation of scientific and technical aspects of the Convention for 2023-2025  
Resolution XIV.15: Enhancing the conservation and management of small wetlands  
Resolution XIV.16: Integrating wetland protection, conservation, restoration, sustainable use and management into national sustainable development strategies  
Resolution XIV.17: The protection, conservation, restoration, sustainable use and management of wetland ecosystems in addressing climate change  
Resolution XIV.18: Waterbird population estimates to support new and existing Ramsar Site designations under Ramsar Criterion 6 – use of alternative estimates  
Resolution XIV.19: Proposal to establish an International Mangrove Centre (a Ramsar Regional Initiative)  
Resolution XIV.20: The Ramsar Convention's response to environmental emergency in Ukraine relating to the damage of its Wetlands of International Importance (Ramsar Sites) stemming from the Russian Federation's aggression