

8th SESSION OF THE MEETING OF THE PARTIES
26 – 30 September 2022, Budapest, Hungary

**DRAFT WATERBIRD MONITORING SYNERGIES WITH OTHER
FRAMEWORKS**

Compiled by the AEWA Technical Committee and consulted with Secretariats of the relevant frameworks

Introduction

Through Resolution 6.3 the MOP invited the Technical Committee and the Secretariat to work with the Ramsar Scientific and Technical Review Panel and the Ramsar Convention Secretariat to identify possible synergies with respect to waterbird monitoring, taking into account the Ramsar Strategic Plan 2016-2021, Targets 11 and 13, and the possible development of further indicators for Target 5 related to coverage of wetland-dependent bird populations by designated Ramsar Sites.

Later, through Resolution 7.7 the MOP invited the Technical Committee and the Secretariat to work with the Ramsar Convention and its regional initiatives, the European Commission as well as CAFF-AMBI, Common Wadden Sea Secretariat (Wadden Sea Flyway Initiative), OSPAR, HELCOM and other relevant regional MEAs to identify possible synergies with respect to waterbird population estimates and to waterbird monitoring and reporting.

To address these mandates, task 5.3 was included in the Technical Committee (TC) workplan 2019-2021. At its 15th meeting in April 2019, the TC agreed to take a stepwise approach and in the first instance compile an overview and assess the status of synergies and potential options. At its 16th meeting in January 2021, the TC has reviewed an assessment of the existing synergies. Based on the feedback from the TC, the document was revised and potential options for further strengthening of synergies were identified.

The Standing Committee reviewed the assessment at its 16th meeting in May 2021 and approved it for consultation with the MEAs and other frameworks identified for cooperation on waterbird monitoring. After undertaking a consultation with Secretariats of the relevant MEAs and other frameworks, this document was finalised in July 2021 on the basis of the received feedback and approved for submission to MOP8 by the Standing Committee at its 18th meeting on 28 July 2021.

Action Requested from the Meeting of the Parties

The Meeting of the Parties is requested to review and endorse the possible synergies on waterbird monitoring with other frameworks and processes identified and adopt the recommendations for strengthening those synergies.

DRAFT WATERBIRD MONITORING SYNERGIES WITH OTHER FRAMEWORKS

Background

The AEWA Technical Committee’s Workplan for 2019-2021 has identified the following task (5.3):

“Work with Ramsar and its regional initiatives, the European Commission as well as CAFF-AMBI, Common Wadden Sea Secretariat (Wadden Sea Flyway Initiative), OSPAR, HELCOM and other relevant regional MEAs to identify possible synergies with respect to waterbird population estimates, monitoring and reporting, including in the context of Ramsar Strategic Plan Targets 11 & 13 and possible development of further indicators for Target 5 related to coverage of wetland dependent bird populations by designated Ramsar Sites (Resolutions 6.3 and 7.7)¹”.

It foresees two steps:

1. Assess the status of synergies and potential options;
2. Consult the assessment of the status and options for synergies with the identified frameworks and finalise the document as a blueprint for strengthening of existing and development of new synergies.

Both steps were implemented, and the resulting assessment and recommendations are presented below.

Bird data required by various MEAs

Table 1 provides an overview of the key bird attributes collected and reported by the various MEAs.

Table 1. Key bird attributes collected and reported by the various MEAs.

MEA / initiative (Technical support)	Population size	Population trend	Bird numbers at sites
AEWA (Wetlands International)	<p>Classification on Table 1 of Annex 3 of the Agreement</p> <p>Mechanism: Conservation Status Report</p> <p>Sources: IWC Regional assessments (e.g. EU Art. 12 report, European Red List of Birds, HELCOM, OSPAR) EBCC PECBMS</p> <p>Commissioned reports Literature review National Reports by Contracting Parties (every 6 years harmonised with EU Birds Directive Article 12 reporting)</p> <p>Frequency: every 3 years</p>	<p>Classification on Table 1 of Annex 3 of the Agreement</p> <p>Strategic Plan 2019-2027 Purpose-level indicators</p> <p>Mechanism: Conservation Status Report</p> <p>Sources: Same as for population size Flyway-level trend analysis of IWC data National Reports by Contracting Parties (every 6 years harmonised with EU Birds Directive Article 12 reporting)</p> <p>Frequency: 3 years Taxonomic level and scope: Populations listed on</p>	<p>Nomination of AEWA Flyway Network Sites according to Target 3.1 of the AEWA Strategic Plan 2019-2027 by 2021 and updated by MOP10 (2027) and for every other MOP thereafter</p> <p>Monitoring of AEWA Flyway Network Sites according to Target 3.2 of the AEWA Strategic Plan 2019-2027 by MOP9 (2024)</p> <p>Sources: Contracting Parties</p>

¹ See Annex 1 for details.

MEA / initiative (Technical support)	Population size	Population trend	Bird numbers at sites
	<p>Taxonomic level and scope: Populations listed on Table 1 (migratory water- and seabirds) and non-native waterbirds</p>	<p>Table 1 (migratory water- and seabirds) and non-native waterbirds</p> <p>Species action and management plans also include demographic parameters to monitor</p>	
<p>Ramsar (Wetlands International)</p>	<p>Criterion 6</p> <p>Mechanism: Waterbird Population Estimates</p> <p>Frequency: according to Ramsar Resolution VI.9, 1% thresholds are to be updated once in 9 years unless significant change in numbers.</p> <p>Taxonomic level and scope: all waterbird populations</p>	<p>Not used yet although a set of trend indicators could be relevant to assess the Ramsar Strategic Plan</p>	<p>Ramsar Criteria 4, 5 & 6</p> <p>Ramsar Information Sheets are to be updated</p>
<p>EU Birds Directive (European Environmental Agency & BirdLife International)</p>	<p>EU Article 12 reporting process</p> <p>EU Biodiversity Strategy indicators</p> <p>Source: Reports from Member States Frequency: 6 years</p> <p>Taxonomic level and scope: all naturally occurring bird species</p>	<p>EU Article 12 reporting process</p> <p>EU Biodiversity Strategy indicators</p> <p>It is noteworthy that the EU does not have wetland, coastal or marine bird indicators similar to the farmland or forest bird index.</p> <p>Source: Reports from Member States Frequency: 6 years</p> <p>Taxonomic level and scope: all naturally occurring bird species. The EU process looks not only at trends in bird numbers but also in range</p>	<p>Nomination of SPAs under Article 4</p> <p>Update of Natura 2000 Standard Data Form (no set frequency)</p> <p>Update on the total numbers and trends in SPAs as part of the Article 12 reporting process</p> <p>Taxonomic level and scope: SPA trigger species</p>

MEA / initiative (Technical support)	Population size	Population trend	Bird numbers at sites
		extent	
<p>EU Marine Strategy Framework Directive (MSFD)</p> <p>(Co-ordinated by Regional Sea Conventions, e.g. OSPAR, HELCOM)</p>	<p>EU MSFD Article 8 assessment reporting process (specified in Commission Decision EU 2017/848)</p> <p>Good Environment Status of Marine Bird species groups based on individual species status assessments. Species status is assessed using two primary criteria: abundance trends, bycatch mortality, and up to three secondary criteria: demographic characteristics, distribution and habitat for the species. Each criterion is assessed against threshold values. All assessment methods (including thresholds) need to be agreed regionally.</p> <p>Source: Reports from Member States Frequency: 6 years (started 2012)</p> <p>Taxonomic level and scope: species from following groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p> <p>Scale: ‘Ecologically-relevant’ (sub-regions or subdivisions in each EU Marine Region)</p>	<p>EU MSFD Article 8 assessment reporting process (specified in Commission Decision EU 2017/848)</p> <p>Assessment of abundance trends against following Primary criterion: ‘The population abundance of the species is not adversely affected due to anthropogenic pressures, such that its long-term viability is ensured.’</p> <p>Thresholds are set for each species. Assessments of abundance are fed into species status assessments.</p> <p>Source: Reports from Member States Frequency: 6 years (started 2012)</p> <p>Taxonomic level and scope: species from following groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p> <p>Scale: ‘Ecologically-relevant’ (sub-regions or subdivisions in each EU Marine Region)</p>	<p>No specific site monitoring protocol</p>
<p>OSPAR (ICES/OSPAR/HELCOM Joint Working group on Marine Birds, JWGBIRD)</p>	<p>Conducts Status Assessment of Marine Bird species groups based on individual species status assessments. These are designed to feed into MSFD Art 8 reporting by EU member states (see above)</p> <p>Species status is assessed using OSPAR Common Indicators, equivalent to MSFD GES criteria. Each indicator is</p>	<p>Common Indicator on marine bird abundance Breeding and non-breeding abundance trends are assessed against thresholds set for each species (equivalent to MSFD assessment – see above)</p> <p>Source: OSPAR Assessment Portal https://oap.ospar.org/en/ospar-assessments/intermediate</p>	<p>submitted to the OSPAR Marine Bird database hosted by ICES at https://www.ices.dk/data/data-portals/Pages/Biodiversity.aspx</p> <p>Standard assessment and monitoring methods published as a Co-ordinated Environmental Monitoring Programme (CEMP) Guideline</p>

MEA / initiative (Technical support)	Population size	Population trend	Bird numbers at sites
	<p>assessed against agreed threshold values.</p> <p>Source: OSPAR Assessment Portal https://oap.ospar.org/en/ospar-assessments/</p> <p>Frequency: previously 10 years, but changed to 6 years to be in line with MSFD: 2000, 2010, 2017, 2023</p> <p>Taxonomic level and scope: species from following MSFD GES groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p> <p>Scale: OSPAR Regions (equivalent to EU Northeast Atlantic sub- regions)</p>	<p>-assessment-2017/biodiversity-status/marine-birds/bird-abundance/</p> <p>Frequency: 6 years (first use of indicator in 2017)</p> <p>Taxonomic level and scope: species from following MSFD GES groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p> <p>Scale: OSPAR Regions and subdivisions of Arctic Waters and Greater North Sea</p>	<p>https://www.ospar.org/docs/assessment-2017/biodiversity-status/marine-birds/bird-abundance/?v=38978</p>
<p>HELCOM (ICES/OSPAR/HELCOM Joint Working group on Marine Birds, JWGBIRD)</p>	<p>HELCOM Core Indicators on Abundance of waterbirds in the wintering season and Abundance of waterbirds in the breeding season assessed against a threshold set individually for each species. Approach used for defining good status has been developed by the OSPAR Inter- sessional Correspondence Group on Co-ordination of Biodiversity Assessment and Monitoring (ICG-COBAM MSFD) and used in the OSPAR indicator 'Marine bird abundance' (ICES 2013, OSPAR 2017).</p> <p>Status assessment carried out every 6 years for each species.</p> <p>Taxonomic level and scope: species from following MSFD GES</p>	<p>HELCOM Core Indicators on Abundance of waterbirds in the wintering season and Abundance of waterbirds in the breeding season assessed against a past reference level for trends in waterbird abundance.</p> <p>Taxonomic level and scope: species from following MSFD GES groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p> <p>Status assessment carried out every 6 years for each species.</p> <p>Taxonomic level and scope: species from following MSFD GES groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p>	<p>Data on site monitoring carried out nationally and submitted to HELCOM Biodiversity database.</p> <p>Monitoring carried out following the and HELCOM Monitoring Manual in the sub-programme.</p>

MEA / initiative (Technical support)	Population size	Population trend	Bird numbers at sites
	<p>groups – grazers, waders, surface-feeders, pelagic feeders and benthic feeders</p> <p>Scale: Coastal areas of all the countries bordering the Baltic Sea.</p>	<p>Scale: Coastal areas of all the countries bordering the Baltic Sea.</p>	
CAFF	<p>CBird Group reports for AEWA in 2012 and 2015² and various for key species.</p> <p>The Circumpolar Biodiversity Monitoring Programme (CBMP) (of which CBird is a part). Monitoring of Focal Ecosystem Components (FECs) including essential and recommended attributes.</p> <p>CBMP Marine: seabird FECs include omnivores (glaucous gull, ivory gull), diving planktivores (least auklet, little auk), diving piscivore (common murre, thick-billed murre), surface piscivore (black-legged kittiwake), benthivore (common eider), and the recent addition of the northern fulmar and Leach’s storm petrel.</p> <p>CBMP Terrestrial: bird FECs include herbivores (ptarmigan, geese), insectivores (waders, passerines), carnivores (falcons, owls, buzzards, jaegers), omnivores (cranes, ducks, raven). Various attributes (abundance, demography, phenology, diversity, health, distribution temporal cycles) are noted as essential or recommended for monitoring of various</p>	<p>CBird Group reports for AEWA in 2012 and 2015</p> <p>The Circumpolar Biodiversity Monitoring Programme (CBMP) (see previous column).</p> <p>Arctic Seabird States Archive</p>	<p>Various monitoring frameworks/plans of relevance to waterbirds have been developed including:</p> <p>(seabirds), noting updates in SAMBR. report</p> <p>Circumpolar Seabird Monitoring Plan</p> <p>(tundra breeding-birds), noting updates in START report</p> <p>Data available on the</p>

² After 2015 these reports became largely unnecessary because of the European Red List process except Canadian part of some AEWA waterbird populations.

MEA / initiative (Technical support)	Population size	Population trend	Bird numbers at sites
	<p>FECs (for more details see page 61 of START report, link below).</p> <p>See further reporting:</p> <p>State of the Arctic Marine Biodiversity Report (SAMBR, 2017) Seabirds chapter, and 2021 seabird update</p> <p>State of the Arctic Terrestrial Biodiversity Report (START, 2021) Birds chapter</p> <p>Global Goose Audit (2018)</p> <p>Arctic Species Trend Index: migratory birds index (2015)</p> <p>Arctic Migratory Birds Initiative (AMBI)</p> <p>African Eurasian Flyway (draft Status and Trends report from the Western Russian Arctic)</p> <p>Source: Contributions from Arctic States, Permanent Participants, Observer states and organizations</p>		
Trilateral Wadden Sea Cooperation	<p>Wadden Sea: It concerns only part of the flyway populations</p> <p>East Atlantic Flyway: 3-yearly total counts along the flyway.</p>	<p>Wadden Sea: It concerns only part of the flyway population</p> <p>East Atlantic Flyway: 3-yearly trend analyses</p>	<p>Wadden Sea: It is more like a large site monitoring</p> <p>East Atlantic Flyway: Monitoring of key sites along the flyway including human impacts</p>
IUCN Red List of Birds (BirdLife International)	It is partly informed by waterbird population estimates for AEWa and Ramsar, but it also provides input into those particularly in relation to threatened species	It is partly informed by waterbird population estimates for AEWa and Ramsar, but it also provides input into those particularly in relation to threatened species	Not applicable

Data collection and assessment

All MEA assessments are secondary users of nationally coordinated monitoring programmes.

Data from national level monitoring programmes is aggregated at international level by various expert organisations that provide technical support to the MEAs (e.g. Wetlands International, BirdLife International, EEA, ICES/OSPAR/HELCOM Joint Working Group on Marine Birds, i.e. JWGBIRD, Sovon) and these range from simple aggregations of nationally reported figures (e.g. under the EU Article 12 reporting process) to running combined supranational trend analyses (e.g. IWC, PECBMS, HELCOM, OSPAR, Wadden Sea).

The geographic levels usually (e.g. entire range of a species or population, Europe, EU, OSPAR, HELCOM regions or subregions) differ according to the specific needs of the MEA.

Usually, the assessment criteria are also different reflecting the specific agreements in the expert groups under the respective MEAs. These differences partly reflect the different legal backgrounds of the MEA, political agendas and different preferences how e.g. trends should be assessed.

Synergies already in place

In general, assessments with a larger geographic scope usually draw on the results of other assessments within their geographic area. E.g. the 1% thresholds under the Ramsar Criterion 6 are now set using the information collected and assessed for the AEWA Conservation Status Report. In turn, the AEWA Conservation Status Report draws heavily particularly on the population size estimates collected for the European Red List of Birds and EU Birds Directive Article 12 processes. Coastal and marine data collected for Birds Directive purposes are also used in the trend analyses and species status assessments conducted within the HELCOM and OSPAR regional sea assessments. HELCOM and OSPAR assessments are specifically designed for use by EU member States for reporting on Good Environmental Status of marine birds under the Marine Strategy Framework Directive (MSFD). The HELCOM, OSPAR, MSFD assessments are conducted at an ‘ecologically relevant scale’ (larger than national waters) and are therefore easily fed into the East Atlantic Flyway assessment process from the Wadden Sea Flyway Initiative.

AEWA has already enhanced the synergies with the EU Article 12 reporting process by linking the schedule, data requirements and guidance of its national reporting on population sizes and trends to the EU one. This way the reports of the EU Member States to the Article 12 process can be directly used in the AEWA assessment process and the AEWA process completes the geographic scope of the EU assessment extending it to the entire population range.

An overview of existing synergies is provided in Table 2.

Table 2. Existing synergies. Cells describe how a process on the vertical axis contributes to another process on the horizontal axis.

	AEWA	Ramsar	Birds Directive Art. 12	MSFD Art 8	HELCOM	OSPAR	CAFF	WSFI	Red List
AEWA	x	Criterion 6 ³	Wintering bird trends	n.a.	n.a.	n.a.	Wintering bird trends	n.a.	Input into Red List assessment
Ramsar	n.a.	x	Art. 4 criteria	n.a.	HELCOM SPA?	n.a.	n.a.	n.a.	n.a.

³ 1% threshold

	AEWA	Ramsar	Birds Directive Art. 12	MSFD Art 8	HELCOM	OSPAR	CAFF	WSFI	Red List
Birds Directive Art. 12	Population sizes Breeding bird trends	Criterion 6	x	Population size and trend marine birds	Population size and trend marine birds	Population size and trend marine birds	n.a.	Population sizes	Input into Red List assessment
MSFD Art 8	“Favourable Conservation Status”	n.a.	n.a.	x	n.a.	n.a.	n.a.	n.a.	n.a.
HELCOM	Trends	n.a.	n.a.	Trends & “FCS”	x	n.a.	n.a.	Trends ?	n.a.
OSPAR	Trends	n.a.	n.a.	Trends & “FCS”	n.a.	x	Trends	Trends ?	n.a.
CAFF	Trends	n.a.	n.a.	n.a.	n.a.	n.a.	x	n.a.	n.a.
Trilateral Wadden Sea Cooperation	Population sizes Trends	Criterion 6	Input into population sizes and trends	Input into trends & “FCS”	n.a.	Input into trends & “FCS”	n.a.	x	Input into Red List assessment
IUCN Red List	Table 1 classification (Col A, cat 1b)	Criterion 2	n.a.	In the Mediterranean and Black Sea: proportion of Red List species	n.a.	n.a.	n.a.	n.a.	x

Further possibilities to enhance synergies

Potential areas for synergies include:

- Data flow from national to international level;
- Timing of analyses;
- Timing of international surveys.

Data flow

Data flow from national level to international assessment is currently organised in three ways:

1. Submitting national data to international expert organisations for unified trend analysis (e.g. site-level IWC data to Wetlands International, site-level IWC and breeding seabird data to the OSPAR⁴ and HELCOM marine bird databases hosted by ICES, common breeding bird data to the PECBMS) resulting in (annual) population indices. These organisations can and do act as depositories of this data for further analysis in the context of other international treaties;
2. Submitting national population size and trend estimates since 1980 and for the last 12 years to the EEA/BirdLife International/AEWA under the EU Birds Directive Article 12 reporting, European Red List of Birds and AEWA national reporting on population status.
3. Based on the review of a wide range of available evidence: this route is followed by the IUCN

⁴ <https://www.ices.dk/data/data-portals/Pages/Biodiversity.aspx>

Red List, the Waterbird Population Estimates and the AEWA Conservation Status Assessment.

Data flow is not particularly problematic. Basically, all programmes build on national monitoring schemes that are anyway needed for conservation and adaptive management of the species. However, monitoring schemes are geographically biased. There are relatively comprehensive monitoring schemes in Northwest Europe but breeding bird monitoring schemes are fundamentally not existent for most populations breeding in West Siberia, Asia and Africa at scales that are suitable to monitor population status. Hence, there is not much to build on further analysis. It is also important to highlight that in these regions, apart from Ramsar and the CBD, there are no conservation instruments that would require monitoring data.

Timing of analyses

The different processes operate with different reporting timetables (Table 3). It shows that there is already a good alignment between the EU/European reporting and the AEWA national reporting. Monitoring of common breeding birds and wintering waterbirds, which collect data annually, are compatible with any reporting timetables. Compatibility with the timetable of treaties that cover a smaller part of the Agreement Area and a relatively small number of species (HELCOM, OSPAR, CAFF) is less of a concern. Most of the trend assessments under the first two instruments build on annually collected data and they do not focus on population size estimates.

The ongoing work on identifying monitoring priorities will look at populations that are currently insufficiently monitored and will recommend populations and countries that should be priorities for the future development of monitoring and survey activities under AEWA.

Potential options to further strengthen synergies with other processes

Ramsar Convention on Wetlands

Ramsar Convention Standing Committee Decision SC58-06 recommends that the Scientific and Technical Advisory Panel (STRP) submit a proposal to update Criterion 6 of the Ramsar Criteria regarding the use of population estimates, for the Committee to consider for submission to the Conference of Contracting Parties, taking into account the need for Contracting Parties to have updated and dynamic information. This should provide interim and long-term recommendations to Parties on the use of population estimates under criterion 6. The process is ongoing.

Recommendations:

- 1. It is suggested that the AEWA Secretariat engages with the Ramsar Secretariat proactively on the work of the STRP in relation to Criterion 6;***
- 2. AEWA should offer to contribute to the Waterbird Population Estimates (including the timely revision and update of the 1% thresholds) through the AEWA Conservation Status Report process considering that this is also essential to identify internationally important sites for AEWA populations as the 1% threshold is one of the internationally recognised criteria of international importance.***

EU Birds Directive Article 12 reporting process

The AEWA Conservation Status Reports already benefit from the coordination with the EU Birds Directive Article 12 reporting and the related European Red List of Birds processes, which both take place in every six years. The AEWA national reporting on population status is already aligned with this process both in terms of timing, format and methodology. The AEWA reporting format and guidelines are a simplified version of the EU format and guidelines. The draft proposal on the AEWA site monitoring framework also recommends using a simplified version of the EU Natura 2000 Standard Data Form to report on the state, pressure and response measures at the AEWA Flyway Network Sites as required by Paragraph 7.4.c of Annex 3 and by the AEWA Strategic Plan. The AEWA Secretariat is already represented on the EU Expert Group on Reporting under the Nature Directives. Besides of

exploring synergies related to content, it might be also possible to explore synergies concerning the reporting tools, which seem to work better than the AEWA reporting tool and could ensure a more seamless data flow.

Recommendations:

- 1. Maintain aligned timing and content between the reporting under Art. 12 of the EU Birds Directive and the AEWA national population status report;*
- 2. Provide input to the EU on the development of reporting formats and guidelines, including harvest data collection and selection of key wintering species;*
- 3. Explore options with the EC, the EEA and BirdLife International concerning the management of data flow to make national reporting easier.*

The EU Marine Strategic Framework Directive (MSFD) Article 8 reporting process, HELCOM and OSPAR cluster

Monitoring and reporting under HELCOM and OSPAR on marine and coastal bird species is contributing to the EU Marine Strategic Framework Directive. These cover a substantial number of species and for some such as sea ducks (including Long-tailed Duck, Velvet Scoter and Common Eider) the offshore surveys conducted to contribute to these reporting processes represent potentially the best available information to support the relevant species action plans. However, the assessment processes are coordinated by regional seas such as the Baltic Sea and North Sea separately and this does not match population boundaries of AEWA populations. Luckily, the whole cluster is technically supported by the ICES/OSPAR/HELCOM Joint Working group on Marine Birds (JWGBIRD), which is also represented in the African-Eurasian Waterbird Monitoring Partnership.

Recommendations:

- 1. Explore with JWGBIRD how to integrate the results of population surveys into the AEWA Conservation Status Reports;*
- 2. Collaborate on wintering Long-tailed Duck, Velvet Scoter and Common Eider (and other sea duck) surveys that could also support certain monitoring requirements of the respective ISSAPs;*

Conservation of the Arctic Flora and Fauna (CAFF)

There is no specific monitoring protocol established under CAFF although it has an ambitious Circumpolar Biodiversity Monitoring Programme (CBMP) and coordinated circumpolar monitoring plans for Marine, Freshwater, Terrestrial and Coastal ecosystems, including a specific seabird plan. Given the diversity within the Arctic, these plans focus on harmonization rather than standardization of monitoring. CBird has published a Circumpolar Seabird Monitoring Plan and launched an online Arctic Seabird Status Archive. In the past, AEWA has commissioned CAFF's CBird to produce seabird status assessments. However, the need for these has greatly diminished after the processes of the EU Birds Directive Article 12 reporting and European Red List of Birds were launched as these left only Canada and the Central Siberian Arctic not covered by these processes. On the other hand, the AEWA monitoring priorities review indicates that for a large number of Arctic-breeding waders, data collected on the non-breeding grounds is unlikely to result in reliable population estimates because they are dispersed over large areas of Africa. In particular, CAFF's Arctic Migratory Birds Initiative (AMBI) Work Plan 2019-2023 recognizes this in its African Eurasian Flyway, and includes the Objective to "increase quality and quantity of population status assessment data of Arctic breeding waterbirds in the African-Eurasian Flyway", with the following actions: "Action 1: Support filling knowledge gaps and strengthening monitoring of Arctic waterbirds in the breeding grounds of the flyway, including implementing CBMP in cooperation with the Wadden Sea Secretariat and AEWA," and "Action 2: Support improved population delineation of Arctic-breeding waders by collating Arctic breeding wader

migration data (tracking, colour-marking, geolocator, ringing data, etc.) and presenting it on the CSN tool to improve flyway delineation data.” Therefore, CAFF via the CBMP, AMBI and CBird can play an important role in improving the quality of seabird and wader monitoring on the breeding grounds and coordinate water- and seabirds at-sea surveys to complete the identification of internationally important marine sites (links to the potential post-2020 30% global marine protected area target), which would be a particularly important issue in the light of the ongoing northward range shift of some species, increasing marine traffic and oil exploration.

Recommendations:

1. ***Strengthen on-the-ground monitoring of Arctic-breeding seabirds and waders;***
2. ***Explore options for the identification and monitoring of internationally important sites.***

Trilateral Wadden Sea Cooperation

The Trilateral Wadden Sea Cooperation has an ongoing joint monitoring programme and its results feed into the EU Birds Directive Article 12 reporting and also into the reporting under OSPAR. However, the Wadden Sea Flyway Initiative also supports a programme to build capacity for waterbird monitoring which represents a vital mechanism to maintain monitoring activities along the East Atlantic Flyway. The results of this monitoring feed into IWC database and are analysed together with other IWC data. Unfortunately, the timing of the major surveys and reporting is after the data analysis is completed for the AEWA Conservation Status Reports. Also, there are relatively weak links between the monitoring activities and the AEWA national population status reports (only five of 12 African AEWA Parties along the East Atlantic Flyway have submitted a report in 2020).

Recommendations:

1. ***Encourage the Wadden Sea countries and the Secretariat to continue providing technical and financial support to African countries along the East Atlantic Flyway;***
2. ***Encourage making a closer link between data collection and AEWA national population status reporting.***

IUCN Red List

The IUCN Red List authority for birds is BirdLife International and there is already a well-established collaboration between AEWA and BirdLife International concerning taxonomic issues and the Red List assessments where the AEWA Conservation Status Reports feed into the Red List assessments and draft Red List changes are communicated to the AEWA Technical Committee already in the consultation stage for their input.

Recommendations:

1. ***AEWA to provide input into the Red List assessment;***
2. ***Maintain alignment of AEWA taxonomy with the one of the IUCN Red List.***

UNEP regional Sea programmes

- Abidjan Convention: covering the entire Atlantic coast of Africa and has mandates for the protection of biodiversity;
- Nairobi Convention: covering the Western Indian Ocean region;
- Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA): they have produced a seabird review in 2003;
- Regional Organisation for Protection of the Marine Environment (ROPME): it covers the Gulf and the Sea of Oman and the Arabian Sea.

Recommendations:

1. Explore interest in conservation, management and monitoring of seabirds.

Table 3. Timetable for reporting

Process	Timetable
AEWA	Conservation Status Report: every 3 years National Reports on population status: every 6 years ⁵
Ramsar	Waterbird Population Estimates: theoretically every 3 years with revision of 1% thresholds once in 9 years unless significant change in numbers ⁶
EU Birds Directive Art. 12 / European Red List of Birds	Every 6 years ⁷
EU Marine Strategy Framework Directive (MSFD) Art 8	Every 6 years (started 2012)
OSPAR	Previously every 10 years (2000, 2010), but then changed to 6 years (2017, 2023) to be in line with MSFD Art 8
HELCOM	Similar to OSPAR with similar relationship to the MSFD Art. 8 reporting
CAFF	There is a wide array of Arctic monitoring programmes and assessments. Under the CBMP coordinated circumpolar monitoring plans have been developed with focal ecosystem components, and various attributes/parameters for monitoring. Focal Ecosystem Components have been adjusted after reporting via State of the Arctic Biodiversity Reports. In CBMP Marine the future frequency of the State of the Arctic Marine Biodiversity Report (SAMBR) process, originally published in 2017, is under discussion at the moment but shorter more frequent updates are expected, such as the 2021 seabirds update. CBird has the Circumpolar Seabird Monitoring Plan, which includes a recommendation of monitoring of colonies (population size and breeding success, with optional further population parameters) on at least three-year intervals. An online population status database (Arctic Seabird Status Archive) has been established and is to be populated annually. The CBMP's State of the Arctic Terrestrial Biodiversity Report, reporting on 88 species of tundra-breeding birds including waders, was published in 2021 with updates/process under discussion.
Wadden Sea Flyway Initiative (WSFI)	Every 3 years
IUCN Red List	Annual with major revisions in every 4 years.

Timing of international surveys

Currently, there are only a few internationally coordinated surveys that are periodically repeated (e.g. the “total counts” for waterbirds in the East Atlantic Flyway, the Baltic Sea seaduck counts, European White Stork Census, the International Swan Census, Eurasian Golden Plover Counts). The AEWA Monitoring Guidance adopted at MOP7 has proposed the establishment of staggered cycle of

⁵ Aligned with the EU Article 12 reporting to avoid duplication of efforts.

⁶ In practice, this schedule has not been possible after the first two editions of the WPE in 1994 and 1997. WPE3 has been published in 2002, WPE4 in 2007, WPE5 in 2012 and WPE6 is under development.

⁷ There are discussions about changing the frequency to make sure it can feed into the assessment of the EU Biodiversity Strategy.

international surveys to produce up-dated population size estimates periodically for populations whose size cannot be well estimated through sampling or generic monitoring methods such the International Waterbird Census. Such schedule is being developed as part of the AEWA monitoring priorities report and it will require coordination with the other relevant instruments mainly in Europe.

Obstacles to overcome

Potential obstacles to overcome include:

- Differences in monitoring and/or analysis methods or structure of reporting
- Data flow;
- Scale (geographic extent and resolution);
- Permission to re-use the data;
- Reporting cycles.

As indicated above, there are already good practices facilitate dataflow and exchange of information between reporting processes. All of the reporting processes allow some flexibility how recent data can be accepted and this is usually about five years.

Differences in geographic extent may render data analysis (e.g. trend analyses for regional seas when the populations are much larger) hardly useable. However, these can be overcome if the original data can be re-analysed.

Some of the organisations (e.g. Wetlands International and the PECBMS) have efficient systems for data storage and obtaining permissions from national coordinators to use the data in flyway level/regional assessments. In other cases, interinstitutional arrangements (e.g. between the European Commission and AEWA, BirdLife International and Wetlands International) facilitate the efficient access to the data reported by national governments / partners.

The diversity of reporting cycles might be bewildering and may appear as a major obstacle. However, AEWA and the European Commission has already in the process of coordinating their reporting cycles and this arrangement covers the majority of the AEWA populations. Therefore, the essential requirement for a well-functioning monitoring system is that population size and trend estimates are available for these two major reporting processes.

Annex 1: Relevant Ramsar Strategic Plan Targets and AEWA Resolutions

Relevant Ramsar Strategic Plan Targets

Ramsar Strategic Plan 2016-2024 Target 5: “The ecological character of Ramsar sites is maintained or restored, through effective planning and integrated management”. It identifies the potential indicator of “Coverage of wetland dependent bird populations by designated Ramsar Sites. Indicator from Resolution IX.1 to be developed”.

Ramsar Strategic Plan 2016-2024 Target 11: “Wetland functions, services and benefits are widely demonstrated, documented and disseminated”⁸.

Ramsar Strategic Plan 2016-2024 Target 13: “Enhanced sustainability of key sectors such as water, energy, mining, agriculture, tourism, urban development, infrastructure, industry, forestry, aquaculture and fisheries, agriculture and ecotourism practices when they affect wetlands, contributing to biodiversity conservation and human livelihoods”⁹.

Relevant parts of AEWA Resolution 6.3:

Preambular Paragraph 17: “Recognising that other MEAs, particularly the Ramsar Convention on Wetlands and the Convention on Migratory Species, as well as the EU Birds Directive, require regular waterbird monitoring data for their operations, such as Ramsar criteria 5 and 6 for the designation of wetlands of international importance whose applicability is linked to the Waterbird Population Estimates which is largely derived from IWC data,”

Operational Paragraph 14: “Invites the Technical Committee and the Secretariat to work with the Ramsar Scientific and Technical Review Panel and the Ramsar Convention Secretariat to identify possible synergies with respect to waterbird monitoring, taking into account the Ramsar Strategic Plan 2016-2024, Targets 11 and 13, and the possible development of further indicators for Target 5 related to coverage of wetland-dependent bird populations by designated Ramsar Sites”.

Relevant parts of AEWA Resolution 7.7:

Preambular Paragraph 10: “Acknowledging the major contributions of the EU Birds Directive Article 12 reporting process and the European Red List of Birds to the last two editions of the AEWA Conservation Status Report”,

Preambular Paragraph 12: “Acknowledging shared interest in water- and seabird populations covered by status assessment under OSPAR, HELCOM and CAFF”,

Preambular Paragraph 17: “Recognising that other MEAs, particularly the Ramsar Convention on Wetlands and the Convention on Migratory Species, as well as the EU Birds Directive, require regular waterbird monitoring data for their operations, such as Ramsar criteria 5 and 6 for the designation of wetlands of international importance whose applicability is linked to the Waterbird Population Estimates”,

Operational Paragraph 11: “Invites the Technical Committee and the Secretariat to work with the Ramsar Convention and its regional initiatives, the European Commission as well as CAFF-AMBI, Common Wadden Sea Secretariat (Wadden Sea Flyway Initiative), OSPAR, HELCOM and other

⁸ No waterbird related indicator identified in the Ramsar Handbook.

⁹ No waterbird related indicator identified in the Ramsar Handbook but identified possibly using indicators linking to the relevant Aichi Target indicators and other relevant international processes.

relevant regional MEAs to identify possible synergies with respect to waterbird population estimates and to waterbird monitoring and reporting”.

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