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Agenda Item 28.2

ECOLOGICAL CONNECTIVITY

(Prepared by the Secretariat)

Summary:

This document reports on progress to implement Resolution 14.16 and Decisions 14.195–14.196 on *Ecological Connectivity*. It proposes amendments to Resolution 14.16 (Rev.COP15), the deletion of Decisions 14.194–14.196 and the adoption of new draft Decisions.

The draft amended Resolution and draft Decisions would support the achievement of Goal 2 and Targets 3.4 and 6.4 of the Samarkand Strategic Plan for Migratory Species 2024–2032.

ECOLOGICAL CONNECTIVITY

Background

1. Connectivity has been a key topic of focus under CMS for many years. CMS has taken several steps to enhance understanding and delivery on the issue of ecological connectivity in relation to the conservation needs of migratory species. The 13th meeting of the Conference of the Parties to CMS (COP13) reaffirmed the importance of connectivity through the adoption of several Resolutions and Decisions. Resolution 12.26 (Rev.COP13) also endorsed a definition of 'ecological connectivity' as "*the unimpeded movement of species and the flow of natural processes that sustain life on Earth*".

2. COP14 consolidated previous Resolutions that addressed – to varying degrees – connectivity into a single Resolution. Resolution 14.16 *Ecological Connectivity* further reaffirmed the importance of connectivity for conserving migratory species and recognized that to address connectivity effectively, regional and international cooperation as well as integrated approaches included under the auspices of other multilateral environmental agreements (MEAs) are required. The Resolution instructs the Secretariat to coordinate knowledge exchange among entities, to support Parties in the establishment and management of conservation areas and networks, to bring the Resolution to the attention of other MEAs, and to collaborate and support efforts to address ecological connectivity.

3. The Conference of the Parties adopted Decisions 14.195 and 14.196, which outline actions to implement Resolution 14.16 in the intersessional period until COP15, and which read as follows:

14.195 Directed to the Scientific Council

The Scientific Council is requested, subject to the availability of resources, to work on the following tasks for enhancing the scientific understanding of connectivity issues in relation to migratory species:

a) review the results of its survey of existing major databases that may support relevant analyses and syntheses of information on connectivity, and identify options inter alia for ensuring sustainability and enhanced operability and coordination of such databases for this purpose;

b) investigate options and develop proposals for creating relevant data and knowledge holding capabilities and for enhancing analysis capabilities under the auspices of the CMS, in collaboration with suitably qualified institutions and processes;

c) produce a synthesis of collated information on the linkages between migratory species connectivity and ecosystem integrity and resilience;

d) having regard in particular to the Samarkand Strategic Plan for Migratory Species, assess the needs and develop focused objectives for new research on key connectivity issues, including but not limited to climate change, which affect the conservation status of each of the major taxonomic groups of migratory wild animals covered by CMS in each of the world's major land and oceanic regions, and produce a report on the findings of this assessment prior to the 15th meeting of the Conference of Parties;

e) provide recommendations concerning any additional guidance that may be needed within the framework of the CMS on assessing threats to migratory species connectivity in particular priority situations identified by the work described in sub-paragraph (d) above; and

f) make further recommendations as appropriate arising from the work described in this Decision.

14.196 Directed to the Secretariat

The Secretariat, subject to the availability of resources, shall:

a) drawing on the most appropriate data sources and with the advice of the Scientific Council, identify the habitats, areas, corridors and networked sites that are of greatest global importance for the conservation of migratory species including through modules of the CMS Atlas on Animal Migration;

b) support Parties in implementing Resolution 14.16 Ecological Connectivity by providing specific guidance for further improving the effective application of measures for addressing connectivity in the conservation of migratory species through national laws, policies and plans, including Spatial Plans and National Biodiversity Strategies and Action Plans, and through international cooperation;

c) engage in the CBD-led partnership promoting area-based conservation measures with a view to contributing to the achievement of Target 3 and other related targets notably Targets 1 and 2 of the Kunming-Montreal Global Biodiversity Framework; and

d) support the Scientific Council in implementing Decision 14.195.

Activities to implement Resolution 14.16 and Decisions 14.195 and 14.196 (b)-(d)[1]

Ecological Connectivity Working Group

4. To support implementation of Decision 14.195, the Working Group on Ecological Connectivity was re-established by the 7th meeting of the Sessional Committee of the Scientific Council (ScC-SC7) for the intersessional period until COP15. The Terms of Reference of the Working Group are contained in document UNEP/CMS/ScC-SC7/Outcome 2.

5. The Working Group met on 9 June 2025 and discussed the Survey on Ecological Connectivity and Infrastructure, as requested by Decision 14.195 a), and the Atlas on Animal Migration. For information on implementation of Decisions 14.18–14.19 *Atlas on Animal Migration*, refer to document UNEP/CMS/COP15/Doc.21.

6. The Working Group was consulted on proposed amendments to Resolution 14.16, as contained in Annex 1. Notably, these include aligning terminology with other conventions – for example, the inclusion of "inland waters" as per the terminology used in the targets of the Kunming-Montreal Global Biodiversity Framework (KMGBF); alignment with the *IUCN Guidelines for conserving connectivity through ecological networks and corridors* by adding "corridors" to networks; and the substitution of "networks" for "connectivity" throughout the revised Resolution, where appropriate. The Working Group welcomed the strengthened alignment and integration with other global mandates and the added clarity surrounding connectivity tools, gaps and challenges.

Implementation of Decision 14.195 (a): Survey on Ecological Connectivity and Infrastructure

7. The Secretariat launched a Survey on Ecological Connectivity and Infrastructure (hereinafter referred to as the Survey) as part of the follow-up to Decisions taken by COP13 and COP14, with the aim of collecting information on relevant data and existing databases that may support analyses and syntheses of information on connectivity. In response to Decision 14.195a), the Secretariat analysed the outcomes of this Survey.

[1] Implementation of Decision 14.196 a) is considered under document UNEP/CMS/COP15/Doc.21 *Atlas of Animal Migration*.

8. A summary of the analysis of the Survey can be found in Annex 1 to this document. The full analysis is available as document UNEP/CMS/COP15/Inf.28.2a.

9. The Survey collected information from 55 respondents. To make further use of the information provided through the Survey, draft Decision 15.BB a), as contained in Annex 2 to this document, proposes holding a workshop to consider options and develop proposals for creating relevant data- and knowledge- holding capacity and for enhancing analysis capabilities under the auspices of the CMS.

Implementation of Decision 14.195 (b): research and data management

10. Decision 14.195 b) requests the Scientific Council to investigate options and develop proposals for creating relevant data- and knowledge- holding capacity and for enhancing analysis capabilities under the auspices of the CMS.

11. This Decision has not been fully implemented due to a lack of capacity and funding in the current intersessional period. The Working Group recommended organizing a workshop to address issues related to management of data on animal migration, building, inter alia, on the outcomes of the Survey.

12. Similar mandates were provided through Decision 14.203 d) and e), which request the Secretariat to identify databases for spatial data on existing and planned linear infrastructure in cooperation with relevant experts. The Decision also calls for the establishment of an online library of existing databases on the movements, habitats, and presence and absence of migratory species (such as Movebank, EURING and IBAT and those identified by the Scientific Council), as well of guidelines and learning resources.

13. In addition, the Scientific Council's Working Group on Infrastructure and Migratory Species has prepared recommendations that are highly relevant to this area of work (see document UNEP/CMS/COP15/Doc. 28.10). It has been suggested that there may be merit in combining these efforts.

14. Draft Decision 15.BB b), as contained in Annex 2 of this document, proposes commissioning further research on key connectivity issues.

Implementation of Decision 14.195 (c): linkages between migratory species connectivity and ecosystem integrity and resilience

15. In response to Decision 14.195 c), which calls for a synthesis of collated information on the linkages between migratory species connectivity and ecosystem integrity and resilience, the CMS Secretariat, in cooperation with the Secretariat of the UN Convention to Combat Desertification (UNCCD), prepared a Global Land Outlook Thematic Report, *Ecological Connectivity: An Essential Component in Ecosystem Restoration*, launched in October 2025. The report highlights the important role that ecological connectivity has in maintaining functioning ecological processes such as the flow of nutrients and minerals, pollination, seed dispersal and free-flowing rivers, among others. It further highlights the importance of restoring degraded land to improve landscape connectivity and how improved connectivity can enhance landscape resilience to climate change and other alterations.

Implementation of Decision 14.195 (d): research on key connectivity issues, such as climate change, which affect the conservation status of migratory wild animals

16. Decision 14.195 d) has not been implemented due to lack of funding. The issue of knowledge gaps for connectivity and climate change should be considered by the Working Group on Ecological Connectivity, together with the Working Group on Climate Change, in the next intersessional period, assuming its work is continued.

Implementation of Decision 14.196 (b): ecological connectivity guidance and support

17. The Secretariat, under the National Legislation Programme (see document UNEP/CMS/COP15/Doc.23), is in the process of finalizing a legislative guidance document, *Maintaining, Improving and Restoring Ecological Connectivity*, which has been reviewed by several organizations and Party representatives. The document provides guidance on enhancing ecological connectivity through targeted legal frameworks, and aims to provide countries with actionable recommendations to ensure long-term compliance with Articles III.4 a) and b) of the Convention.

18. In collaboration with the Center for Large Landscape Conservation (CLLC), a report, *Technical Guidance on Systematic Conservation Planning with Connectivity*, has been developed. The technical guidance lays out a science-based approach to expanding ecological networks for conservation, while at the same time increasing their connectivity. The guidelines, which are available on the CMS website, will be particularly useful for any entity aiming to expand protected area networks in alignment with Target 3 of the KMGBF.

Implementation of Decision 14.196 (c): cooperation with the Convention on Biological Diversity

19. Decision 14.196 c) instructs the CMS Secretariat to engage with the CBD Secretariat to promote area-based conservation measures to contribute to the achievement of relevant Targets of the KMGBF.

20. Through webinars, communication material and meetings, the CMS Secretariat, in collaboration with the CBD, will continue to support the dissemination and application of tools and guidelines for implementing and monitoring connectivity with regard to the KMGBF.

Global Partnership on Ecological Connectivity

21. Recognizing that numerous connectivity-related initiatives and efforts are ongoing around the world, and that for migratory species in particular, cooperation and collaboration across multiple stakeholders, sectors and national boundaries is essential, the Global Partnership on Ecological Connectivity (GPEC) was launched during CMS COP14. The GPEC was included in the adopted Programme of Work for the intersessional period between COP14 and COP15 to support the implementation of Resolution 14.16. The purpose of the GPEC is to provide a multi-stakeholder collaborative initiative for collective and coherent action that maintains, enhances and restores ecological connectivity to support biodiversity and ecosystem services across the globe.

22. The GPEC is comprised of Collaborative Partners, along with a Steering Committee.

23. The Steering Committee is chaired by the CMS Secretariat and comprises key international organizations working on connectivity issues: the IUCN World Commission on Protected Areas (IUCN WCPA) Connectivity Conservation Specialist Group (CCSG), the UNEP World Conservation Monitoring Centre (UNEP–WCMC), the Center for Large Landscape Conservation (CLLC) and the World Wildlife Fund for Nature (WWF) International. The Steering Committee meets every two months to discuss the strategic aspects of the Partnership, to provide updates on their ecological connectivity activities, and to support the Coordinator in advancing the initiative.

24. Collaborative Partners include entities that contribute to achieving the GPEC's objectives. The current Collaborative Partners include the secretariats of other MEAs such as the CBD, the Ramsar Convention on Wetlands and UNCCD; NGOs such as Climate Chance; networks such as Birdlife International and Local Governments for Sustainability (ICLEI); and development banks such as the World Bank. Additional Collaborative Partners continue to be identified and engaged. The first in-person meeting for GPEC Partners was held at the IUCN-World Conservation Congress in Abu Dhabi, from 9 to 15 October 2025.

25. The CMS Secretariat, with funds provided by the Governments of Flanders, France, Monaco, Switzerland and Uzbekistan, has continued to advance the work of this partnership since its launch. A full-time dedicated GPEC Coordinator was hired in March 2025, initially for a one-year period, but with a view to extending the position, pending available funding.

26. The concept note for the Partnership was finalized, setting forth four focus areas (see document UNEP/CMS/COP15/Inf.28.2b Priorities under each of the four core areas have been identified, based on consideration of key information gaps and needs, and areas where desired outcomes for connectivity could be amplified by the collective efforts of the Partnership. The GPEC's priorities are aligned with the CMS Programme of Work for the intersessional period, COP14 Decisions, the Resolution on Ecological Connectivity and Goal 2 of the SPMS 2024–2032.

27. Since the GPEC objectives are directly aligned with numerous activities included in the CMS Programme of Work, this Global Partnership will play a crucial role in supporting the Secretariat in achieving its connectivity-related goals as a cross-cutting topic across several of its workstreams.

Outreach

28. The CMS Secretariat, in collaboration with key partners, has engaged in several key international meetings and side events, presenting the GPEC initiative and highlighting the importance of connectivity for migratory species. CMS co-hosted a side event on 'Ecological Connectivity: A Key to Powering Delivery of the KMGBF' at CBD COP 16, delivered a presentation on the importance of marine connectivity at the 3rd United Nations Ocean Conference in Nice (June 2025), and organized a side event on global flyways and connectivity at Ramsar COP15.

Fundraising

29. The CMS secretariat provided input to and feedback on GEF-9 draft strategic positioning and programming directions was provided. Connectivity is represented in several GEF Programmes and Focal Areas. Flyways are specifically mentioned, and it was proposed that additional connectivity implementation mechanisms and connectivity references be included.

Resolution 14.16 *Ecological Connectivity*

30. Taking into consideration emerging issues and existing guidelines around ecological connectivity, some amendments have been proposed to Resolution 14.16, as contained in Annex 1 to this document. Notably, this includes amendments to terminology for the sake of consistency and streamlining, the addition of new text to further highlight key relevant areas (either previously lacking or requiring a greater emphasis given developments since the previous COP), and the removal of some text and minor restructuring to improve readability and eliminate repetition.

Recommended actions

31. The Conference of the Parties is recommended to:

a) adopt the draft amendments to Resolution 14.16 contained in Annex 1 of this document;

b) adopt the draft Decisions as contained in Annex 2 of this document;

c) note the summary of the analysis of the CMS Survey on Ecological Connectivity and Infrastructure contained in Annex 3 of this document; and

d) delete Decisions 14.194, 14.195 and 14.196 (b)-(d) *Ecological Connectivity*

ANNEX 1

PROPOSED AMENDMENTS TO RESOLUTION 14.16

ECOLOGICAL CONNECTIVITY

NB: Proposed new text is underlined. Text to be deleted is ~~crossed out~~.

Recalling Resolutions 10.3 and 11.25 on the role of ecological networks in the conservation of migratory species,

Also recalling Resolutions 12.7 (Rev. COP13) *The Role of Ecological Networks in the Conservation of Migratory Species* and 12.26 (Rev.COP13) *Improving ways of addressing ecological connectivity in the conservation of migratory species,*

Bearing in mind that ecological connectivity (hereafter "connectivity") is the unimpeded movement of species, connection of habitats without hinderance and the flow of natural processes that sustain life on Earth,

Recognizing that opportunities for dispersal, migration and genetic exchange among wild animals depend on the quality, extent, distribution and connectivity of relevant habitats, which support both the normal cycles of these animals and their resilience to change, including climate change,

Welcoming UN General Assembly Resolution 75/271 'Nature knows no borders: transboundary cooperation – a key factor for biodiversity conservation, restoration and sustainable use' that stresses the need to maintain and enhance connectivity across ecosystems,

Recalling Article III.4 of the Convention under which Parties shall endeavour to conserve and, where feasible and appropriate, restore the habitats of Appendix I species, which are of importance in removing the species from danger of extinction and to prevent, remove, compensate for or minimize, as appropriate, obstacles that seriously impede the migration of the species, and Article V.5 under which Agreements in respect of Appendix II species should provide for maintenance of a network of suitable habitats "appropriately disposed in relation to the migration routes",

Noting the importance of ecological connectivity for the Kunming-Montreal Global Biodiversity Framework (KMGBF), the Ramsar Convention on Wetlands, the UNESCO World Heritage Convention and other multilateral environmental agreements (MEAs),

Also recalling Article I.1 of the Convention under which "range" is defined for the purposes of the Convention as "all the areas of land or water that a migratory species inhabits, stays in temporarily, crosses or overflies at any time on its normal migration route", recognizing that in the case of marine species the range may extend beyond national jurisdictional limits,

Further recalling Goal 2 of the Samarkand Strategic Plan for Migratory Species 2024–2032, "*habitats and ranges of migratory species are maintained and restored, supporting their connectivity"* and Targets 2.1, 2.2. and 2.3 which aim to identify monitor, manage and restore important habitats for migratory species and ensure that these habitats are well-connected and are able to support migratory species throughout their life cycles,

Recognizing that to meet their needs throughout their life history stages migratory species depend on a range of habitats across their migratory ranges,

Further recognizing that sites that perform a critical role in a wider system, such as core areas, corridors, restoration areas and buffer zones, may be linked by strategies that, through a concept of ecological networks, address habitat fragmentation and other threats to migratory species,

Recognizing in particular the importance of rivers and their associated ecosystems as corridors in the context of climate change, for facilitating flows of water and migrations of aquatic species,

Further recognizing that habitat destruction and fragmentation are among the primary threats to migratory species, and that the identification and conservation of habitats of appropriate quality, extent, distribution and connectivity are thus of paramount importance for the conservation of these species in terrestrial, inland water, coastal and marine environments,

Noting that the Convention on Biological Biodiversity (CBD) defines “inland waters” as aquatic influenced environments located within land boundaries and includes the full range of wetland ecosystems as defined by the Ramsar Convention on Wetlands,

Also noting the importance of aquatic connectivity, recognizing that some migratory freshwater species require connectivity between inland waters and marine and coastal environments to complete their life cycle,

Deeply concerned that habitats for migratory species are becoming increasingly fragmented across terrestrial and aquatic biomes,

Further concerned that infrastructure projects that constitute barriers to migration with negative impacts on migratory species, including at population scale, continue to be authorized and built, including at critical points in migratory routes,

Acknowledging the absence of an agreed, single, robust indicator to measure different aspects of ecological connectivity, limiting clarity on what “well-connected” means in the context of the KMGBF and the current limitations of existing indictors in measuring connectivity outside protected area networks and for marine habitats in particular,

Welcoming ongoing efforts to identify more robust and additional connectivity indicators that address current limitations and to develop methodologies to measure them,

Aware that several initiatives aimed at promoting ecological ~~networks~~ connectivity are already in existence at different scales, including bird flyway initiatives, protected area programmes under the auspices of relevant MEAs, and initiatives that extend to areas that are not protected,

Further aware that the success of many relevant initiatives and programmes depends fundamentally on, inter alia, effective regional and international cooperation, including transboundary cooperation, among governments at national and local levels, different conventions, NGOs and other actors,

Considering that migratory species merit particular attention in designing and implementing initiatives aimed at promoting ecological networks, in order to ensure that the areas selected are sufficient to meet the needs of such species throughout their life cycles and migratory ranges,

Further considering that the designation of protected areas across very large areas is not always possible and that additional wider landscape measures usually need to be applied in order to address and mitigate anthropogenic changes at the wider landscape scale,

Recognizing that transboundary area-based conservation measures, including networks of protected and other conserved areas, can play an important role in improving the conservation status of migratory species by contributing to ecological networks and corridors and promoting connectivity, particularly when animals migrate for long distances across or outside national jurisdictional boundaries,

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

Recognizing the importance of ecological connectivity for achieving multiple environmental, social and economic priorities that depend on well-functioning ecosystems and the services they provide, as well as its important role in mitigating climate change and strengthening the resilience of ecosystems and migratory species to the impacts of climate change,

~~[*Further recalling* the goals and targets in the Strategic Plan for Migratory Species 2024-2032]~~

Aware of the importance of integrating approaches to ecological ~~networks~~ connectivity in national and transboundary environmental and spatial planning, including under the auspices of other MEAs, such as National Biodiversity Strategies and Action Plans (under the Convention on Biological Diversity), and National Adaptation Plans (under the United Nations Framework Convention on Climate Change),

Acknowledging that since its entry into force in 1983, the Convention on Migratory Species has provided the primary specialized intergovernmental framework for cooperative efforts on issues of connectivity in this context, and that the implementation of relevant provisions under the Convention forms a key contribution to the achievement of objectives adopted in other intergovernmental fora, including Goals 14 and 15 of 'Transforming our World: the United Nations 2030 Agenda for Sustainable Development', Goal A and Targets 1, 2, 3 and 12 of the Kunming-Montreal Global Biodiversity Framework and the Ramsar Strategic Plan 2026-2034,

Noting in particular that Goal A and Targets 2, 3 and 12 of the KMGBF include effective language on ecological connectivity, and that it is implicit in Target 1,

Further acknowledging the UNCCD COP15 'Land, Life and Legacy' Declaration, which encourages "Parties to avoid, reduce, and reverse land degradation by accelerating the implementation of existing national commitments to achieve land degradation neutrality by 2030, taking into account the connectivity of ecosystems",

Recognizing the important role played by existing ecological networks and corridors worldwide in the conservation of migratory species, particularly through the role of these ~~networks~~ in supporting connectivity, including the networks reviewed for COP11 in document UNEP/CMS/COP11/Doc.23.4.1.2 as well as those operated at national level,

Aware of the importance of promoting cooperation through the competent international and regional organizations, where appropriate, to seek the adoption of conservation measures to support ecological ~~networks~~ connectivity across terrestrial, inland water, marine and coastal environments,

~~*Recognizing* that the approach of CMS to coordinated conservation and management measures across a migratory range can contribute to the development of ecological networks and promote enhancement of connectivity that are is fully consistent with the law of the sea by providing the basis for like-minded Range States to take individual actions at national level and regarding their flag vessels in marine areas within and beyond the limits of national jurisdiction and to coordinate these actions across the migration range of the species concerned,~~

~~*Recalling* Resolution 12.21 [(Rev. COP14)] Climate Change and Migratory Species which highlights the critical importance of connectivity for conservation and management of migratory species, and its Annex 1 which includes priority actions for Parties and other stakeholders including to expand existing protected area networks to cover important stop-over locations and sites for potential colonization, and ensure the effective protection and appropriate management of sites to maintain or to increase the resilience of vulnerable populations to extreme stochastic events,~~

Acknowledging that the practical approach to the identification, designation, protection, restoration and effective management of critical sites for maintaining, enhancing and restoring connectivity will vary between terrestrial, aquatic and avian species, as well as from one taxonomic group to another or even from species to species, and that while the flyway approach provides a useful framework to address habitat and species conservation for migratory birds along migration routes, similar approaches to articulating connectivity may be applicable to other taxa,

Also acknowledging the nearly 10,000 sites of international importance for migratory species highlighted in the *State of the World's Migratory Species* report which are Key Biodiversity Areas identified using a standardized set of criteria applied across different migratory taxa,

Further acknowledging that flyways constitute a specific type of migration corridor, that migratory birds depend on widely separated areas for their survival, and that measures designed to conserve these networks require focus on the breeding grounds, stopover sites, non-breeding areas and feeding, resting and moulting places, as well as on preventing and addressing threats at these locations and on the routes between them,

Welcoming Resolution 12.11 (Rev.COP14) *Flyways*, ~~*Welcoming*~~ the strategic review of ecological networks (UNEP/CMS/COP11/Doc.23.4.1.2) and a compilation of case studies illustrating how ecological networks have been applied as a conservation strategy to different taxonomic groups of CMS-listed species (UNEP/CMS/COP11/Inf.22),

~~*Recognizing* the increasing number of national and regional migratory species-related networks globally,~~

~~*Recognizing* that transboundary area-based conservation measures including networks of protected and other conserved areas can play an important role in improving the conservation status of migratory species by contributing to ecological networks and promoting connectivity particularly when animals migrate for long distances across or outside national jurisdictional boundaries, and welcoming the UN General Assembly Resolution 75/271 that stressed the need to maintain connectivity across ecosystems, which often requires cooperation among Range States inhabited by a certain species,~~

Recognizing that there is a critical need globally to scale up knowledge and action to maintain, enhance and restore hydrological and marine connectivity, to ensure the conservation of aquatic migratory species,

Welcoming the adoption of the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction and the selection of ecological connectivity as an indicative criterion for identifying important areas in Annex 1 of the Agreement,

Further welcoming ongoing efforts to identify Ecologically or Biologically Significant Marine Areas (EBSAs), Important Shark and Ray Areas (ISRAs), Important Marine Mammal Areas (IMMAS) and Important Marine Turtle Areas (IMTAs),

Acknowledging the tools contained in Annex 1 of UNEP/CMS/COP14/Doc.30.2.1.2 as contributions to the provision of a sound scientific basis for action and to the fostering of greater public awareness concerning connectivity issues,

Also acknowledging the interconnections between social and ecological systems as a critical component of ecological connectivity and in adopting a whole-of-society approach to connectivity conservation,

Welcoming the report on available scientific evidence, experiences, and recommendations for addressing connectivity in the conservation of migratory species, contained in document UNEP/CMS/COP12/Inf.20,

Further welcoming the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (IPBES) ongoing assessment of integrated biodiversity-inclusive spatial planning and ecological connectivity,

Welcoming the efforts made by the Secretariat, in collaboration with Parties and partners, to promote connectivity in various fora and platforms,

Welcoming the Global Partnership on Ecological Connectivity (GPEC), which aims to ensure that connectivity is maintained, enhanced and restored by addressing related challenges, promoting informed actions and decisions based on the best available knowledge and latest science and technology, and improving the effectiveness and coherence of implemented conservation measures, and the role the Partnership plays in supporting the CMS Secretariat in meeting its mandates related to ecological connectivity,

~~*Noting* that Goal A, and Targets 2, 3 and 12 of the Kunming-Montreal Biodiversity Framework include effective language on ecological connectivity, and that it is implicit in Target 1,~~

~~*Welcoming* the engagement of the CMS Secretariat in the 'WildlifeConnect' initiative,~~

The Conference of the Parties to the
Convention on the Conservation of Migratory Species of Wild Animals

1. *Urges* Parties and invites others to give special attention to the issues highlighted in this Resolution when planning, implementing and evaluating actions designed to support the protection, conservation, restoration and effective management of migratory species, both at national level and in the context of regional and international cooperation, including in particular when:

(i) devising strategic conservation objectives, so that these may more often be expressed in terms of whole migration systems, and in terms of the requirements for the functioning of the migration process itself, as opposed to merely the status of populations or habitats,

(ii) identifying, prioritizing, designating, restoring and managing protected areas and ~~developing~~ other effective area-based conservation measures, both within and beyond areas of national jurisdiction, taking account, inter alia, of the best available science, the need for connectivity to be a key factor in the definition of appropriate conservation management units, including at the flyway, swimway, landscape or seascape scale, and the need for actions to be addressed to the connections between places as well as to the places themselves,

(iii) identifying, strengthening and expanding, based on the best available science, ecological networks and corridors to conserve migratory species worldwide and enhancing their design and functionality,

(iv) evaluating the sufficiency and coherence of ecological networks in functional and qualitative terms as well as in terms of extent and distribution, ~~having regard to the desirability~~ recognizing the merit of sharing experiences and best practices on this issue,

(v) monitoring and assessing the effectiveness of the protection, restoration and management of the areas and networks referred to in the present paragraph,

(vi) monitoring and assessing the evolution of ecological ~~networks~~ connectivity over time;

2. *Calls* on Parties and Signatories of CMS Memoranda of Understanding to consider the network approach and ecological connectivity in the implementation of existing CMS instruments and initiatives;

3. *Encourages* Parties to adopt and implement those guidelines developed within CMS and other relevant processes, including the 'Technical Guidance on Systematic Conservation Planning with Connectivity', which aim to promote connectivity and halt its loss, for example through the provision of practical guidance to avoid infrastructure development projects disrupting the movement of migratory species;

4. *Encourages* Parties and invites others, working with all relevant stakeholders in national and local government authorities, local communities, the private and other sectors, to intensify efforts to address threats to the conservation status of migratory species and the integrity of their connected habitats, which are manifested as threats to connectivity and ecological integrity, including barriers to migration, anthropogenic additional mortality, fragmented resources and disrupted processes, genetic isolation, population non-viability, altered behaviour patterns, shifts in range caused by climate change or depletion of food or water resources, inconsistencies in management across and beyond national jurisdictions, and other factors;

5. *Requests* the Secretariat to coordinate the sharing and review of information on connectivity within and between the instruments of the CMS Family, biodiversity-related MEAs and other~~s~~ actors, and, where appropriate, facilitate joint attention by such instruments, agreements and organizations at strategic level to such matters;

6. ~~*Takes note* of the compilation of case studies on ecological networks (UNEP/CMS/COP11/Inf.22);~~

~~7. *Takes note* also of the recommendations made in the strategic review on ecological networks contained in (UNEP/CMS/COP11/Doc.23.4.1.2) and encourages Parties and invites all other Range States, partner organizations, relevant funding agencies and the private sector to provide adequate, predictable and timely financial resources and in-kind support to assist in their implementation;~~

8. *Encourages* Parties and other Range States, when identifying areas of importance to migratory terrestrial, avian and aquatic species, to take into account and make explicit by description, schematic maps or conceptual models, the relationship between those areas and other areas that may be ecologically linked to them, either in physical terms, for example as ecological corridors, or in other ecological terms, for example as breeding areas related to non-breeding areas, stopover sites, feeding and resting places;

9. *Also invites* Parties and other Range States and relevant organizations to collaborate to identify, designate, restore and effectively maintain comprehensive and coherent ecological networks of protected sites, ecological corridors and other adequately managed sites of international and national importance for migratory animals while taking into account best available science, resilience to change, including climate change, and existing ecological networks and corridors;

10. *Urges* Parties to identify and promote ecological networks and other connectivity tools, for example through~~, for example,~~ the development of further site networks within the CMS Family or other fora and processes, that use scientifically robust criteria to describe and identify important sites for migratory species and promote their internationally coordinated protection, conservation management and restoration, with support from the CMS Scientific Council, as appropriate;

11. *Urges* Parties and other Range States and partners to make full use of all existing complementary tools and mechanisms for the identification, designation and effective management of critical sites and site networks for migratory species and populations, including through further inscription of UNESCO World Heritage Sites (including transboundary serial nominations ~~transnational~~) and, for migratory waterbirds and other migratory wetland, inland water and marine and coastal dependent taxa, the designation and effective management of Wetlands of International Importance (Ramsar Sites);

11 bis. Encourages Parties to maintain, enhance and restore free-flowing rivers and connected floodplains of particular importance to migratory freshwater fishes and other migratory freshwater obligate species, including through basin-scale planning and transboundary cooperation where appropriate;

12. ~~*Highlights* the added value of developing ecological networks and corridors under CMS where no other network instruments are available, and~~ *Urges* Parties and invites Range States to strengthen the restoration and effective management of ecological connectivity through existing network sites and their further development, and through the designation and management of additional sites based on the best available science;

13. *Encourages* Parties to support existing ecological ~~network~~ connectivity initiatives within the CMS Family of instruments;

14. *Further encourages* Parties and relevant organizations, when implementing systems of protected areas and other relevant site- and area-based conservation measures, to:

    a) select areas in such a way as to address the needs of migratory species as far as possible throughout their life cycles and migratory ranges,

b) set network-scale objectives for the conservation of these species within such systems, including by restoration of fragmented and degraded habitats and removal of barriers to migration, and

c) cooperate regionally and internationally for the achievement of such objectives;

15. *Invites* Parties, in collaboration with other MEAs, NGOs, local governments and other stakeholders, as appropriate, to enhance the quality, monitoring, management, extent, distribution and connectivity of ~~terrestrial and aquatic~~ protected areas and OECMs across terrestrial, inland waters, and coastal and marine ecosystems, in accordance with relevant international law including UNCLOS, so as to address as effectively as possible the needs of migratory species throughout their life cycles and migratory ranges, including their need for habitat areas that offer resilience to change, including climate change, taking into account wider landscapes, seascapes and migratory routes;

16. *Requests* the Secretariat to support Parties in the establishment and management of conservation areas, ~~and~~ networks and corridors, including existing protected areas and Transfrontier Conservation Areas;

17. *Invites* Parties and other States as well as relevant regional and international fora, as appropriate, to explore the applicability of ecological networks and other connectivity tools to marine migratory species, especially those that are under pressure from human activities such as over exploitation, oil and gas exploration/exploitation, fisheries, infrastructure and other coastal development;

18. *Calls* upon Parties, as appropriate, to apply the concept of Transfrontier Conservation Areas (TFCA), meaning an area or component of a large ecological region that straddles the boundaries of two or more countries and is within their national jurisdiction, which may encompass one or more protected areas, as well as multiple resource use areas, in their transboundary conservation efforts;

19. *Encourages* Parties to identify transboundary habitats of CMS-listed species, which could be considered as TFCAs, for cooperation and possible bi- or multilateral agreements between neighbouring Range States, to improve the conservation of the habitats and species concerned;

20. *Invites* non-Parties to collaborate closely with Parties in the management of transboundary populations of CMS-listed species, including by joining CMS and its associated instruments, to support the ~~development and implementation~~ enhancement of ecological ~~networks~~ connectivity globally;

21. *Urges* Parties to address immediate threats to national sites important for migratory species within ecological networks and corridors, making use, where appropriate, of international lists of threatened sites, such as the 'World Heritage in Danger' list of UNESCO, the 'Montreux Record' of Ramsar and the 'Important Bird and Biodiversity Areas (IBAs) in Danger' list of BirdLife International;

22. *Also urges* Parties to adequately monitor ecological ~~networks~~ connectivity in a standardized manner to allow early detection of any deterioration in quality of sites, rapid identification of threats and timely action to maintain ~~network~~ ecological integrity, making use, where appropriate, of existing and emerging monitoring methods~~, such as the IBA Monitoring Protocol developed by BirdLife International, the KBA Monitoring Protocol developed by the Key Biodiversity Areas Partnership and the International Waterbird Census coordinated by Wetlands International,~~

23. *Requests* the Secretariat to bring this Resolution to the attention of the Convention on Biological Diversity, the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, the Ramsar Convention on Wetlands of International Importance, the United Nations Convention to Combat Desertification, the United Nations Decade on Ecosystem Restoration, and in relation to relevant nominations of World Heritage Sites under the World Heritage Convention including within a multinational context of migration;

24. *Further requests* the Secretariat, subject to availability of resources, to work with Parties and the Scientific Council and other international and regional organizations, including the Convention on Biological Diversity and other relevant stakeholders, in promoting the protection, conservation, restoration and effective management of critical sites, ~~and,~~ ecological networks and corridors, and ecological connectivity in general;

25. *Invites* the Convention on Biological Diversity, the Ramsar Convention on Wetlands, the World Heritage Convention, the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement), the IUCN World Commission on Protected Areas (WCPA) and others to collaborate in identifying and protecting~~ed~~ important sites ~~use existing important and protected sites~~ such as ~~ecological networks,~~ Key Biodiversity Areas (including Important Bird and Biodiversity Areas), Ecologically or Biologically Significant Marine Areas (EBSAs) and Wetlands of International Importance ~~to assess and identify gaps in protected area coverage, and secure protection, conservation, restoration and effective management of these networks, as appropriate; to~~ to enhance ecological connectivity,

26. *Also invites* Parties, other States and relevant organizations to provide support for the long-term maintenance and application of large-scale databases on migratory species distributions, movements and abundance such as those included in Annex 1 of UNEP/CMS/COP14/Doc.30.2.1.2 and any additional ones resulting from the survey contained in Annex 2 of the same document;

27. *Further invites* the Global Environment Facility (GEF) in making its funding disbursement decisions to give support to activities that will assist in taking forward the areas of work defined in the present Resolution, in particular to support improved habitat management and restoration as well as enhanced connectivity to facilitate migration, ~~at the site level~~ through the use of tools and resources developed specifically for the conservation of migratory species in their flyway, swimway, migratory path or ecological network and corridor context, and to support the sharing of information and experience;

27.bis *Welcomes* the Global Partnership on Ecological Connectivity, which fosters collective and coherent actions that maintain, enhance and restore connectivity across terrestrial, inland water, marine and coastal ecosystems that are important for migratory species;

28. *Calls* on MEAs, regional and other intergovernmental organizations and relevant NGOs to collectively and synergistically support the implementation of the present Resolution, including by sharing information and collaborating in the technical work and through partnerships such as the Global Partnership on Ecological Connectivity;

28.bis *Requests* the Secretariat to continue their role in supporting the Global Partnership on Ecological Connectivity and the achievement of its objectives;

29. *Requests* the Secretariat to report to the Conference of the Parties at each of its ordinary meetings on the progress in implementing this Resolution; and

30. Repeals:

    (a) Resolution 12.7 (Rev.COP13) *The Role of Ecological Networks in the Conservation of Migratory Species*, and

    (b) Resolution 12.26 (Rev.COP13) *Improving Ways of Addressing Ecological Connectivity in the Conservation of Migratory Species*.

ANNEX 2

DRAFT DECISIONS

ECOLOGICAL CONNECTIVITY

Directed to the Scientific Council

15.AA The Scientific Council is requested, pending availability of resources, to:

a) provide guidance to the Secretariat and support the implementation of Decision 15.BB; and

b) make any further recommendations, as appropriate, that may be needed within the framework of CMS to address migratory species connectivity, in particular with respect to activities undertaken under Decision 15.BB;

Directed to the Secretariat

15.BB The Secretariat shall, subject to the availability of resources:

a) convene, in cooperation with the Scientific Council and its Working Group on Infrastructure and Migratory Species, an expert workshop to consider options and develop proposals for creating relevant data- and knowledge-holding capacity and for enhancing analysis capabilities under the auspices of the CMS, building, inter alia, on the outcomes of the Survey on Ecological Connectivity and Infrastructure and the recommendations from the Scientific Council's Working Group on Infrastructure;

b) commission a study on the linkages between migratory species connectivity and ecosystem integrity and resilience, and to assess the needs for new research on key connectivity issues that affect the conservation status of each of the major taxonomic groups of migratory wild animals covered by CMS in each of the world's major land and oceanic regions, and produce a report on the findings of this assessment for consideration by the 16th meeting of the Conference of the Parties; and

c) support Parties, including through the Global Partnership on Ecological Connectivity, in implementing Resolution 14.16 (Rev COP15) *Ecological Connectivity* by, inter alia, developing and disseminating specific guidance for further improving the effective application of measures to maintain, enhance and restore ecological connectivity.

ANNEX 3

SUMMARY OF THE ANALYSIS OF THE CMS SURVEY ON ECOLOGICAL CONNECTIVITY AND INFRASTRUCTURE

The Survey on Ecological Connectivity and Infrastructure was developed by the CMS Secretariat to collect information on existing databases of data relevant for animal movement, as outlined in document UNEP/CMS/COP14/Doc.30.2.1.2 (Ecological Connectivity – Technical Aspects) and Decision 14.203(c). The Survey has been shared with CMS Parties and stakeholders through Notification 2025/013 and by reaching out directly to several dozens of data holders. This analysis refers to the sections of the Survey that relate to ecological connectivity, excluding the part on linear infrastructure (section 5), which is presented in UNEP/CMS/COP15/Doc.28.10 *Infrastructure Development and Migratory Species*. All responses that were received by 1 July 2025 were included in the analysis.

A total of 55 responses were received, of which 22 referred to data held by non-profit organizations, 11 to data held by universities, 11 to data held by governments or government agencies, and 3 to data held by research institutes. Three responses had multiple data holders and one response referred to data held by CMS. In four cases there was no response given to this question. Regarding the type of data that is held, the most common types are aggregated and summarized data as well as map- and plot-based data. In terms of accessibility, the majority of databases are open access or available upon request, or a combination of both. Some databases require registration for at least part of their data and one database is accessible upon payment.

Temporal and geographical scope of the data

Although a few records date back to as early as the 1920s, there is a steep peak in data records starting in the 2000s, with the number of new datasets decreasing again post-2010. Most of the databases have ongoing records that continue to the present day. The geographical scope of the data is variable, but data is available for all continents. Most responses refer to data from Europe, followed by Asia, North America and Africa. Antarctica is covered in the least number of databases.

Information on taxonomic groups

Data is available for all taxonomic groups, though very limited for insects. Data associated with mammals is the most abundant, followed by data on birds. Data relevant to migration systems, networks of areas, and threats to connectivity is available for all taxonomic groups, except for insects.

Overall, a large variety of types of information is available. Observational data are the most often reported type of data across taxonomic groups. Individual animal tracking data, although not available for insects, are also among the most common type of data recorded across taxonomic groups. Migration data are available but relatively rare for mammals and insects. A high number of respondents reported the availability of data on animal environment and threats to birds and mammals specifically, but such data are largely absent for reptiles and rare for fish and insects. Respondents also reported the availability of data on populations and habitats for mammals and fish specifically, whereas many reported data on management for birds, and to a lesser extent for mammals.

Specific questions

Most data holders further analyse the data they record, and over half of the data holders claim that the results of these analyses are directly applied to the shaping or implementation of spatial planning or migratory species conservation policies.

A majority of respondents (42 out of 55) see opportunities for enhanced collaboration regarding the use of data for better understanding connectivity issues with respect to migratory species.