



CONVENTION ON MIGRATORY SPECIES

UNEP/CMS/Resolution 14.16

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ECOLOGICAL CONNECTIVITY

Adopted by the Conference of the Parties at its 14th Meeting (Samarkand, February 2024)

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,

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”,

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 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 the terrestrial, coastal and marine environments, *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 authorised and built, including at critical points in migratory routes,

Aware that several initiatives aimed at promoting ecological networks are already in existence at different scales, including bird flyway initiatives, protected area programmes under the auspices of relevant Multilateral Environmental Agreements, 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, Non-Governmental Organizations (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,

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“,

Further recalling the goals and targets in the Samarkand Strategic Plan for Migratory Species 2024-2032

Aware of the importance of integrating approaches to ecological networks in national environmental planning, including under the auspices of other multilateral environmental agreements (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 in “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 2016-2024,

Recognizing the important role played by existing ecological networks 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 in the marine environment,

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 connectivity that are 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 will vary 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 Migratory Species Report which are Key Biodiversity Areas identified using a standardised 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, stop-over 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) on flyways,

Welcoming the strategic review on 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,

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,

Welcoming further the ongoing work being undertaken by the Convention on Biological Diversity, which has convened regional workshops covering most of the world's ocean, on the process to describe Ecologically or Biologically Significant Marine Areas (EBSAs) and to modify existing EBSAs,

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,

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,

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

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, and

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, 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 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 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 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, 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 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 multilateral environmental agreements and others, and, where appropriate, facilitate joint attention by such instruments, agreements and organizations at strategic level to the 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 which may be ecologically linked to them, in physical terms, for example as connecting 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 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;
10. *Urges* Parties to identify and promote ecological networks and connectivity 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 serial transnational) and for migratory waterbirds and other migratory wetland dependent taxa, designation and effective management of Wetlands of International Importance (Ramsar Sites);
 12. *Highlights* the added value of developing ecological networks under CMS where no other network instruments are available, and urges Parties and invites Range States to strengthen the restoration and effective management of existing network sites and their further development through designation and management of additional sites based on the best available science;
 13. *Encourages* Parties to support existing ecological network 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 other effective area-based conservation measures (OECMs), including coastal and marine areas, in accordance with 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, 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 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, 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 transfrontier conservation areas (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 of ecological networks globally;
21. *Urges* Parties to address immediate threats to national sites important for migratory species within ecological networks, 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 monitor adequately ecological networks to allow early detection of any deterioration in quality of sites, rapid identification of threats and timely action to maintain network integrity, making use where appropriate of existing 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 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 as well as other relevant stakeholders, in promoting the protection, conservation, restoration and effective management of critical sites and ecological networks;
25. *Invites* the Convention on Biological Diversity, the Ramsar Convention on Wetlands, the World Heritage Convention, the IUCN World Commission on Protected Areas (WCPA) and others to use existing ecological networks, such as Key Biodiversity Areas (including Important Bird and Biodiversity Areas), to assess and identify gaps in protected area coverage, and secure protection, conservation, restoration and effective management of these networks, as appropriate;

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 at the site level through the use of tools and resources developed specifically for the conservation of migratory species in their flyway, migratory path or ecological network context, and to support the sharing of information and experience;
28. *Calls on* MEAs, regional and other intergovernmental organizations and relevant Non-Governmental Organizations to support the implementation of the present Resolution, including by sharing information and by collaborating in the technical work described above;
29. *Requests* the Secretariat to report to the Conference of the Parties at each of its ordinary meetings on the progress of implementation of 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*.