

## Workshop on Climate Change and Migratory Species: Regional Approach, Practical Measures and Examples (CCWS2017)

*Bonn, Germany, 20 - 21 February 2017*

UNEP/CMS/CCWS2017/Doc.02

### CONSOLIDATION OF CMS CLIMATE CHANGE RESOLUTIONS AND RECOMMENDATIONS

*(prepared by the CMS Secretariat)*

This meeting has been kindly funded by the Government of the Federal Republic of Germany, through the [Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety \(BMUB\)](#).



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## CONSOLIDATION OF CMS CLIMATE CHANGE RESOLUTIONS AND RECOMMENDATIONS

*(Prepared by the CMS Secretariat)*

Over the years, the Conference of the Parties (COP) to CMS has considered climate change implications for the conservation of migratory species in a number of cases. In particular, it adopted four resolutions and one recommendation addressing specifically this issue, namely

- (a) [Resolution 11.26, Programme of Work on climate Change and Migratory Species;](#)
- (b) [Resolution 10.19, Migratory Species Conservation in Light of Climate Change;](#)
- (c) [Resolution 9.7, Climate Change Impacts on Migratory Species;](#)
- (d) [Resolution 8.13, Climate Change and Migratory Species;](#) and
- (e) [Recommendation 5.5, Climate Change and its Implications for the Bonn Convention.](#)

Since COP11, the CMS Secretariat has initiated a process of consolidation of COP resolutions and recommendations on similar themes. Climate change has been identified as one of such themes.

The document appended to this note has been prepared by Prof. Chris Wold on behalf of the CMS Secretariat. It includes a draft proposal for the consolidation of the resolutions and recommendations mentioned above, the final version of which is expected to be submitted to CMS COP12 (Manila, 23-28 October 2017) for consideration and adoption.

The document is made available to the present workshop with the main aims of

- a) Providing a consolidated overview of the policy recommendations issued by CMS on climate change implications for the conservation of migratory species;
- b) Receiving advice on possible adjustments and/or further development of such policy;
- c) Receiving advice on the appropriateness of the proposed repeal of sections of older resolutions and recommendations.

## Cover Note to Consolidation of Climate Change Resolutions

(Prepared by Chris Wold on behalf of the CMS Secretariat)

Since the Fifth Meeting of the Conference of the Parties to the Convention on Migratory Species, the Parties have adopted four resolutions and one recommendation relating to climate change. As described in document [UNEP/CMS/StC45/Doc.19/Rev.1](#) on the Review of Decisions, three of these resolutions and the recommendation should be repealed because they are superseded by Resolution 11.26 or out of date. The following table includes the recommendations made in document UNEP/CMS/StC45/Doc.19/Rev.1.

Resolution	Action	Reasons
Recommendation 5.5 Climate Change and its Implications for the Bonn Convention	Repeal in full	The five paragraphs in this resolution are all incorporated in Resolution 11.26, <i>Programme of Work on Climate Change and Migratory Species</i> .
Resolution 8.13 Climate Change and Migratory Species	Repeal in full	This resolution has been superseded by Resolution 9.7, <i>Climate Change Impacts on Migratory Species</i> , and Resolution 11.26, <i>Programme of Work on Climate Change and Migratory Species</i> .
Resolution 9.7 Climate Change Impacts on Migratory Species	Repeal in full	Superseded by Resolution 11.26, <i>Programme of Work on Climate Change and Migratory Species</i> .
Resolution 10.19 Migratory Species Conservation in the Light of Climate Change	Repeal in full	Paragraph 22, requesting the Secretariat and Scientific Council to examine the terms “range” and “historic coverage” in Article 1 of the Convention, appears to have been implemented, with an interpretation of “favourable conservation status” included in paragraph 7 of Resolution 11.26, <i>Programme of Work on Climate Change and Migratory Species</i> .  In addition, paragraphs 4 through 23 provide recommendations for addressing climate change. The Parties may consider these paragraphs superseded by the Programme of Work included in the Annex to Resolution 11.26, as well as other paragraphs of that resolution.  Paragraph 17 of this resolution establishes the position of COP Appointed Councillor for Climate Change. The preamble to Resolution 11.26 “recalls” that decision. Thus, paragraph 17 does not need to be retained. However, if the Parties believe that the paragraph is valuable, they could include it in a new, consolidated resolution relating to the Scientific Council.
Resolution 11.26 Programme of Work on Climate Change and Migratory Species	Repeal in part	Paragraph 5 instructs the Secretariat to organize workshops. It is not clear whether this instruction is intended to be implemented by a particular date. If so, this paragraph should be converted to a Decision with instructions to conduct the workshops by that date.  Paragraph 9 continues the Climate Change Working Group until COP12. If the Parties discontinue this working group, then this paragraph should be

Resolution	Action	Reasons
		<p>repealed.</p> <p>Paragraph 11 calls on Parties and the Scientific Council to report on progress in implementing this resolution to COP12. This paragraph should be repealed. If the Parties wish to establish ongoing reporting obligations, then they should replace the phrase "COP12 in 2017" with "each meeting of the Conference of the Parties."</p>

Paragraph 17 of UNEP/CMS/StC45/Doc.19/Rev.1 recommends consolidating any extant provisions of these resolutions. As such, this paper makes the following additional comments to those included in the table above:

- Recommendation 5.5 from 1997 includes a request to the Scientific Council to establish a small working group to assess relevant scientific information on climate change and report to the next meeting of the Scientific Council. This task has been completed. As a consequence, the proposed consolidation retains none of the paragraphs from Recommendation 5.5.
- Resolution 8.13 from 2005 requests the Scientific Council to identify priorities for future research, among other things. It instructs the Secretariat to work with the Scientific Council and secretariats of CMS daughter agreements to produce guidance on adaptation measures for migratory species. It calls on Parties and non-Party range states to implement adaptation measures to reduce the impacts on Appendix I species and encourages collaborative international research projects. These recommendations are all included in Resolution 11.26. In addition, the preamble to Resolution 8.13 includes a number of outdated references. As a consequence, the proposed consolidation retains none of the paragraphs from Resolution 8.13.
- Resolution 9.7, in its first paragraph, articulates a version of the precautionary approach. It appears that this is not covered in Resolution 11.26 and should be incorporated into any consolidated resolution. Some paragraphs of the preamble have been retained because the ideas expressed in them do not appear to be covered by Resolution 11.26.

Because this is a consolidation, no new text has been added except in the following two circumstances:

1. To clarify grammar, and
2. To update references.

This document includes the following two annexes:

**Annex 1** includes the entire text of five resolutions relating to climate change with an explanation of why text is proposed for deletion, retention, or revisions.  
**Annex 2** is the clean version of the proposed consolidated resolution.

## Annex 1

## Climate Change Draft Resolution Text

PROGRAMME OF WORK ON  
CLIMATE CHANGE AND MIGRATORY SPECIES

1. Underline indicates text to be added.
2. ~~Strikethrough~~ indicates text to be deleted.
3. [Bracketed numbers] are included for reference.
4. Other numbers represent the numbers as they appear in the original resolution or recommendation.

Text from Existing Recommendations	Origin/ Comment
<i>Recalling</i> Recommendation 5.5 and Resolutions 8.13, 9.7, 10.19, and 11.26;	New
<i>Recognizing</i> that climate change is already having an adverse impact on migratory species and the phenomenon of animal migration (UNEP/CMS/ScC17/Inf.12);	Resolution 10.19  Retain
<u>Recognizing</u> that due to climate change, ranges of migratory species are changing and that CMS instruments may need to adapt to these variations;	Resolution 9.7  Retain
<del>Concerned</del> that climate change is already known to be affecting the habitat, behaviour, distribution and abundance of migratory species listed under the Convention;	Resolution 9.7  Repeal; redundant in light of previous two paragraphs
<i>Acknowledging</i> that changes in human activities as a result of climate change, including adaptation and mitigation measures, may have the most immediate negative impact on migratory species;	Resolution 10.19  Retain
<i>Acknowledging</i> the considerable threat that climate change poses for migratory species and their habitats based upon the findings of the <u>5<sup>th</sup></u> <del>4<sup>th</sup></del> Assessment of the Intergovernmental Panel on Climate Change (IPCC) and its Synthesis Report and Summary for Policymakers, <del>approved in November 2007</del> ;	Resolution 9.7  Retain
<i>Recognizing</i> that the best available scientific information indicates that action to help migratory species adapt to climate change is urgently required in order to meet the objectives of the Convention; to give proper effect to Articles II and III, and to the instruments adopted under Article IV, whereas at the same time there is a need to expand and refine knowledge concerning the impacts of climate change on migratory species;	Resolution 11.26  Retain
<i>Emphasizing</i> the need to coordinate action to help migratory species adapt to climate change within the framework of the CMS instruments;	Resolution 11.26  Retain
<i>Acknowledging</i> that recent scientific evidence indicates that the importance of current protected areas and protected area networks for migratory species conservation is not expected to diminish on account of climate change and in many instances may increase;	Resolution 11.26  Retain
<i>Recognizing</i> that it will often be necessary to enhance protected areas and networks in order to maximize representativeness and thereby increasing their contribution to migratory species conservation in light of climate change, and to better integrate these into wider landscapes and seascapes;	Resolution 11.26  Retain

Text from Existing Recommendations	Origin/ Comment
<i>Mindful</i> of the call on Parties and Signatories to CMS instruments in Resolution 10.19 to enable the full participation in CMS and CMS instruments of States that are not currently within the range of the species involved, but are expected to become Range States in the future due to climate change;	Resolution 11.26  Retain
<i>Further recognizing</i> that the understanding of certain terms in the Convention, in particular the term “historic coverage” in Article I(1)(4)(c), should be re-examined in the current era of climate change, bearing in mind that the Convention was concluded before the implications of climate change for migratory species conservation became apparent;	Resolution 11.26  Retain
<i>Recalling</i> that Resolution 10.19 of the Tenth Conference of the Parties (COP10) established the position of a COP-Appointed Councillor for Climate Change and requested the preparation of a Programme of Work and the convening of an intersessional Working Group;	Resolution 11.26  Retain
<i>Taking note</i> of the report of the Workshop that took place in Guácimo (Province of Limón, Costa Rica) from 9-11 April 2014, and thanking the Government of Costa Rica and its agency for protected areas, SINAC (National System for Conservation Areas), for very effectively hosting this workshop;	Resolution 11.26  Retain
<i>Further noting</i> the report of the ACCOBAMS Expert Workshop on the impact of climate change on cetaceans of the Mediterranean and Black Seas that took place in Monaco on 11 June 2014, and its recommendations, including Key Messages to Governments and Others;	Resolution 11.26  Retain
<i>Acknowledging</i> with thanks the contributions of the members of the Climate Change Working Group established under the Scientific Council; and	Resolution 11.26  Retain
<i>Further acknowledging</i> the key role of the financial donors of this project which made it possible to develop the Programme of Work, in particular the Governments of Germany and Monaco for their voluntary contributions, and SINAC and UNDP for their in-kind contributions;	Resolution 11.26  Retain
<i>Acknowledging</i> the report “Climate Change Vulnerability of Migratory Species” by the Zoological Society of London (ZSL) and the report of the CMS Working Group on Climate Change, which were presented at the 16 <sup>th</sup> Meeting of the Scientific Council;	Resolution 10.19  Retain
<i>Noting with satisfaction</i> the outcomes of the UNEP/CMS Technical Workshop on the impact of climate change on migratory species (Tour du Valat, France, 6-8 June 2011), thanking the Government of Germany for financially supporting the Workshop, and recalling the recommendations submitted to the Workshop by members of the Scientific Council (UNEP/CMS/ScC17/Inf.12);	Resolution 10.19  Retain
<i>Recognizing</i> that mitigation measures, such as renewable, low carbon and “clean” energy development, may significantly affect migratory species and their habitats depending on how the installations are sited and operated, and that further research and impact assessments, especially for new technologies, are required;	Resolution 10.19  Retain
<del><i>Recalling</i> Resolution 7.5 on wind turbines and migratory species, which, inter alia, calls for the application of strategic environmental impact assessment procedures to identify appropriate construction sites, and instructs the Scientific Council to develop guidelines for the construction of offshore wind farms aimed at minimizing the negative impacts on migratory species;</del>  <i>Recalling</i> Resolution 11.27 on renewable energy and migratory species, which endorses the document “Renewable Energy Technologies and Migratory Species: Guidelines for Sustainable Development” (UNEP/CMS/COP11/Doc.23.4.3.2);	Resolution 10.19  Replace with new text that recognizes Resolution 11.27, <i>Renewable Energy and Migratory Species</i> , which supersedes Resolution 7.5

Text from Existing Recommendations	Origin/ Comment
<del>Recalling CMS Recommendation 5.5, CMS Resolutions 8.13 and 9.7, Resolution 4.14 <u>6.6</u> of the African-Eurasian Migratory Waterbird Agreement (AEWA), and Resolution 4.14 of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) on climate change and migratory species; <del>and conscious that their implementation requires urgent attention;</del></del>	Resolution 10.19  Retain with updated text
<del>Noting CBD Decision X.33 on biodiversity and climate change which calls for, <i>inter alia</i>, specific measures for species that are vulnerable to climate change, including migratory species, and <i>recognizing</i> the important role of traditional knowledge and the full involvement of indigenous and local communities in planning and implementing effective activities to mitigate and adapt to climate change, as well as the need to develop appropriate assessments of ecosystem and species vulnerability, <u>and CBD Decision XII. 20, biodiversity and climate change and disaster risk reduction;</u></del>	Resolution 10.19  Retain with update text  CBD Decision XII.20 does not appear to supersede or otherwise replace Decision X.33
<del>Also noting Ramsar Convention Resolution X.24 on climate change and wetlands;</del>	Resolution 10.19  Retain
<del>Noting decisions IX/1 and IX/2 of the 9<sup>th</sup> <u>and decision X/37 of the 10<sup>th</sup> meeting of the Conference of the Parties to the CBD concerning biodiversity and biofuels, and Ramsar COP10 Resolution X.25 on wetlands and biofuels <u>and COP11 Resolution XI.10 on wetlands and energy issues;</u></u></del>	Resolution 9.7  Retain with updated text
<del><i>Acknowledging the Convention on the Conservation of European Wildlife and Natural Habitats recommendation 135 of the Convention on the Conservation of European Wildlife and Natural Habitats on addressing the impacts of climate change on biodiversity <u>and recommendation 143 on further guidance for Parties on biodiversity and climate change;</u></i></del>	Resolution 9.7  Retain with updated text
<del><i>Further noting the Cancun Agreement (1/CP.16 paragraph 4) <u>Paris Agreement, which recognizes that deep cuts in global greenhouse gas emissions are required in order to contain</u> establishes a goal to limit the increase in global average temperature <u>well below 2°C above pre-industrial levels, and <i>recalling</i> the need to consider strengthening this long-term global goal on the basis of the best available scientific knowledge, including in relation to a global while pursuing efforts to limit the global average temperature rise <u>to of 1.5 °C;</u></u></i></del>	Resolution 10.19  Retain with updated text
<del><i>Conscious of the relevance of the research undertaken by IUCN to assess the susceptibility of IUCN Red List species to climate change; <u>and</u></i></del>	Resolution 10.19  Retain
<del><i>Welcoming the outcomes of the three climate change workshops conducted under the auspices of the International Whaling Commission (IWC) to date (Hawaii, USA, March 1996; Siena, Italy, February 2009; Vienna, Austria, November/December 2010);</i></del>	Resolution 10.19  Repeal; outdated
<del><i>Recognising the role of the Convention in working towards achieving the 2010 biodiversity target under the Convention on Biological Diversity (CBD) and the need to work collaboratively with other Multilateral Environmental Agreements (MEAs) including the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification, as well as other relevant UN agencies including the Food and Agriculture Organization of the United Nations;</i></del>	Resolution 9.7  Repeal, out of date and superseded by Resolution 11.26
<del><i>Recalling CMS Resolution 8.13, which calls upon Parties to implement adaptation measures to reduce the foreseeable adverse effects of climate change on migratory species and requests the Scientific Council to afford climate change a high priority in its future work programme;</i></del>	Resolution 9.7  Repeal; provision is

Text from Existing Recommendations	Origin/ Comment
	incorporated in Resolution 11.26, Annex actions
<i>Welcoming</i> the report on Climate Change and Migratory Species commissioned by the UK government in 2005 highlighting the specific adverse effects and interactions of climatic change on populations of migratory species, as well as strategies for adaptation as recognised by Resolution 8.13;	Resolution 9.7  Retain
<i>Aware</i> of the report on Indicators of the Impact of Climate Change on Migratory Species prepared by the British Trust for Ornithology in 2008, specifically that individual species groups such as Trans-Saharan migrant birds may be a suitable indicator for assessing the impact of climate change on a number of migratory species;	Resolution 9.7  Retain
<del><i>Recognising</i> the need for close cooperation amongst Multilateral Environmental Agreements and the coordination of the activities resulting from the Convention on Biological Diversity COP Decisions VIII/30 and IX/16 on biodiversity and climate change, and Ramsar Convention Resolution VIII.3 and X.24 on climate change and wetlands;</del>	Resolution 9.7  Repeal; superseded by Resolution 11.26, paragraph 10
<del><i>Further noting</i> the ongoing work on climate change within the CMS Family, specifically the establishment of a working group on migratory species and climate change, which was initiated at CMS COP8;</del>	Resolution 9.7  Repeal; superseded by Resolution 11.26
<del><i>Recalling</i> Resolution 4.14 adopted at the 4<sup>th</sup> Meeting of Parties to AEWA, which, among other issues urges Contracting Parties to designate and establish comprehensive and coherent networks of adequately managed protected sites as well as other adequately managed sites, to accommodate range shifts and facilitate waterbird dispersal;</del>	Resolution 9.7  Repeal; redundant (see paragraph above)
<i>Aware</i> that the Small Island Developing States (SIDS) and developing countries with small islands, which are important migratory sites for various species of birds, marine mammals, reptiles and fish, are highly vulnerable to impacts of climate change and thus require immediate support including capacity building to address these issues; and	Resolution 9.7  Retain
<del><i>Welcoming</i> the forthcoming “Second Workshop on Cetaceans and Climate Change”, to be convened by the International Whaling Commission;</del>	Resolution 9.7  Repeal; out of date
<i>The Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals</i>	
[1.] 1. <i>Adopts</i> the “Programme of Work on Climate Change and Migratory Species” (the POW) annexed to this resolution and urges Parties and Signatories to the CMS instruments and encourages non-Parties to implement the POW as a matter of priority, if applicable and to the extent possible given the particular circumstances of each Party;	Resolution 11.26  Retain
[2.] 1. <i>Urges</i> Parties, despite the remaining uncertainty surrounding the full scale of the impacts of climate change on migratory species, not to delay related decision-making and action;	Resolution 9.7  Retain
[3.] 2. <i>Requests</i> Parties and Signatories to the CMS instruments to assess what steps are necessary to help migratory species cope with climate change and take action to give effect to the POW on Climate Change;	Resolution 11.26  Retain



Text from Existing Recommendations	Origin/ Comment
<p>[4.] 3. <i>Requests</i> the Scientific Council and the Working Group on Climate Change to promote work to address key gaps in knowledge and future research directions, in particular through the analysis of existing long-term and large-scale datasets;</p>	<p>Resolution 11.26  Retain</p>
<p>[5.] 4. <i>Requests</i> the Secretariat to ensure the integration of elements of this POW into the Companion Volume of the Strategic Plan for migratory species to ensure mainstreaming of climate change, avoiding duplication, enhancing synergies and cooperation;</p>	<p>Resolution 11.26  Retain</p>
<p>[6.] 5. <i>Instructs</i> the Secretariat, in collaboration with Parties and relevant international organizations, subject to the availability of funds, to address specific issues and promote the implementation of the POW and share best practice and lessons learnt in the effective mitigation of climate change impacts, including through the organization of regional workshops;</p>	<p>Resolution 11.26  Retain  Instructs the Secretariat to organize workshops.  Unclear as to whether this instruction is intended to be implemented by a particular date. If so, this paragraph should be converted to a Decision with instructions to conduct the workshops by that date.</p>
<p>[7.] 6. <i>Calls</i> on Parties and non-Parties and stakeholders, with the support of the Secretariat, to strengthen national and local capacity for the implementation of the POW and the protection of species impacted by climate change, including, <i>inter alia</i>, by developing partnerships with key stakeholders and organizing training courses, translating and disseminating examples of best practice, sharing and implementing protocols and regulations, transferring technology, and promoting the use of online and other tool to address specific issues contained in the POW;</p>	<p>Resolution 11.26  Retain</p>
<p>[8.] 1. <i>Urges</i> Parties and Signatories to CMS instruments and encourages Non-Parties exercising jurisdiction over areas that a migratory species inhabits or is expected to inhabit in the near future due to climate change, to participate in CMS and relevant CMS instruments, in order to promote timely conservation measures where migration patterns have changed due to climate change;</p>	<p>Resolution 10.19  Retain</p>
<p>[9.] 7. <i>Agrees</i> that Article I (1) (c) (4) of the Convention, on the definition of “favourable conservation status” could be interpreted as follows in light of climate change:  <i>According to Article I (1) (c) (4) of the Convention, one of the conditions to be met for the conservation status of a species to be taken as “favourable” is that: “the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife</i></p>	<p>Resolution 11.26  Retain</p>

Text from Existing Recommendations	Origin/ Comment
<p><i>management". Whereas there is a continued need to undertake conservation action within the historic range of migratory species, such action will increasingly also need to be taken beyond the historic range of species in order to ensure a favourable conservation status, particularly with a view to climate-induced range shifts. Such action beyond the historic range of species is compatible with, and may be required in order to meet the objectives and the obligations of Parties under the Convention;</i></p>	
<p>[10.] 8. <i>Urges Parties and invites relevant international organizations, bilateral and multilateral donors to support financially the implementation of the POW including through the provision of financial and other assistance to developing countries for relevant capacity building;</i></p>	<p>Resolution 11.26  Retain</p>
<p>[11.] 9. <i>Proposes the continuation of the Climate Change Working Group until COP12, ensuring that extending its membership to incorporate expertise from geographical regions currently absent, and to prioritize, facilitate and monitor the implementation of the POW;</i></p>	<p>Resolution 11.26  Retain with updated text  If the Parties discontinue this working group, then this paragraph should be repealed.</p>
<p>[12.] 10. <i>Requests the Secretariat to liaise with the secretariats of relevant MEAs, including in particular the secretariats of the CBD, UNFCCC, UNCCD, Ramsar Convention and World Heritage Convention, in collaboration with/through the Biodiversity Liaison Group, to promote synergies and coordinate activities related to climate change adaptation including, where appropriate, the organization of back-to-back meetings and joint activities; and</i></p>	<p>Resolution 11.26  Retain</p>
<p>[13.] 11. <i>Calls on Parties and the Scientific Council to report progress in implementing the POW, including monitoring and the efficacy of measures taken, to COP12 in 2017, ensuring as far as possible integration into the national reports for CMS; and</i></p>	<p>Resolution 11.26  Repeal  If the Parties wish to establish ongoing reporting obligations, they should replace the phrase "COP12 in 2017" with "each meeting of the Conference of the Parties."</p>
<p>[14.] 2. <i>Further urges Parties and Signatories to CMS instruments to enable and support the full participation in CMS of those states, where migratory species are expected to occur, in the near future due to climate change;</i></p>	<p>Resolution 10.19  Retain</p>
<p>[15.] <u>Repeals the following Resolutions and Recommendation:</u>  (a) <u>Resolution 10.19, Migratory Species Conservation in Light of Climate Change;</u></p>	<p>New text to reflect the consolidation.</p>

Text from Existing Recommendations	Origin/ Comment
<p>(b) <u>Resolution 9.7, <i>Climate Change Impacts on Migratory Species</i></u>;</p> <p>(c) <u>Resolution 8.13, <i>Climate Change and Migratory Species</i></u>; and</p> <p>(d) <u>Recommendation 5.5, <i>Climate Change and its Implications for the Bonn Convention</i></u>.</p>	
<p>[16.]  <del>3. Encourages Parties to develop guidelines on measures needed to assist migratory species adapt to climate change;</del></p>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[17.]  <i>Management and monitoring of species populations</i>  <del>4. Urges Parties to employ adaptive management measures and the ecosystem based approach in addressing climate change impacts, and to monitor the effectiveness of their conservation actions in order to guide ongoing efforts;</del></p>	<p>Resolution 10.19</p> <p>Repeal; superseded by paragraphs 4-23 of the Programme of Work included in the Annex to Resolution 11.26 and other paragraphs of that resolution.</p>
<p>[18.]  <del>5. Requests Parties and the Scientific Council, and encourages the scientific community, IUCN and other relevant organizations to:</del></p> <ul style="list-style-type: none"> <li><del>a) identify and promote a standardized methodology for evaluating the susceptibility of species to climate change;—</del></li> <li><del>b) identify those Appendix I and II listed species, as well as other migratory species on the IUCN Red List, that are most susceptible to climate change, such as the polar bear, and subsequently consider whether these should be listed or uplisted on the CMS Appendices, as appropriate; and—</del></li> <li><del>c) prepare single species action plans for those species listed on Appendix I considered to be most vulnerable to climate change;</del></li> </ul>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[19.]  <del>6. Urges Parties and the Scientific Council, and encourages conservation stakeholders and relevant organizations to:</del></p> <ul style="list-style-type: none"> <li><del>a) improve the resilience of migratory species and their habitats to climate change, <i>inter alia</i> by reducing other threats in order to maintain or increase population size and genetic diversity; and</del></li> <li><del>b) consider <i>ex situ</i> measures and assisted colonization, including translocation, as appropriate for those migratory species most severely threatened by climate change;</del></li> </ul>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>

Text from Existing Recommendations	Origin/ Comment
<p>[20.]</p> <p><del>7. Urges Parties and Signatories to CMS instruments to develop and implement monitoring regimes that are adequate for distinguishing true declines in populations from transboundary range shifts and for analyzing the impact of climate change on migratory species, <i>inter alia</i> through the following measures:</del></p> <ul style="list-style-type: none"> <li><del>a) identifying and carrying out research on the interactions of climate change and migratory species, including the impact on habitats and local communities dependent on the ecosystem services provided by these species;—</del></li> <li><del>b) ensuring that monitoring is maintained in the long term, using comparative methodologies;</del></li> <li><del>c) communicating and sharing monitoring results regularly with neighbouring and other range states; and—</del></li> <li><del>d) continuing to identify indicator species as a proxy for wider migratory species assemblages, habitats and ecosystems, following on from preliminary work presented at COP9 (UNEP/CMS/Inf.9.22), with particular emphasis on finding indicators for species that are data deficient or otherwise difficult to monitor</del></li> </ul>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[21.]</p> <p><del><i>Critical sites and ecological networks</i></del></p> <p><del>8. Urges Parties, when implementing Resolution 10.3 on ecological networks and related instruments, to improve the resilience of migratory species and their habitats to climate change in order to achieve the following objectives:</del></p> <ul style="list-style-type: none"> <li><del>a) to ensure that individual sites are sufficiently large, holding a variety of habitats and topography;</del></li> <li><del>b) to strengthen the physical and ecological connectivity between sites, aiding species dispersal and colonization when distributions shift;</del></li> <li><del>c) to consider the designation of seasonal protected areas in areas where migratory species occur at critical stages in their lifecycle and would benefit from extra protection;—</del></li> </ul>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[22.]</p> <p><del><i>Climate change mitigation and adaptation, and land use planning</i></del></p> <p><del>9. Encourages Parties and relevant organizations to evaluate and reduce the additional impacts on migratory species resulting from changes in human behaviour due to climate change (the so-called “tertiary effects”), such as increased shipping and exploitation in the Arctic ocean areas, which are made possible by retreating ice;</del></p>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[23.]</p> <p><del>10. Urges Parties and encourages multilateral development banks and the energy sector to ensure that any climate change mitigation and adaptation action, such as bio-energy production or flood protection, has appropriate environmental safeguards in place and that any project is subject to strategic and environmental impact assessment requirements and takes into account CMS-listed species;</del></p>	<p>Resolution 10.19</p> <p>Repeal; superseded by Resolution 11.26</p>

Text from Existing Recommendations	Origin/ Comment
<p>[24.]  <del>11. Further urges Parties to develop environmental sensitivity and zoning maps that include critical sites for migratory species, as an essential tool for selecting sites for climate change mitigation and adaptation projects;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[25.]  <del>12. Calls on Parties and the energy sector to make the post-construction monitoring of environmental impacts, including those on migratory species, a standard requirement for climate change mitigation and adaptation projects, especially wind power, and to ensure that such monitoring continues for the duration of plant operation;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[26.]  <del>13. Requests Parties and encourages the energy sector to ensure that where impacts on migratory species are significant, renewable energy and other climate change mitigation or adaptation structures are operated in ways that minimize the mortality of migratory species, such as short term shutdowns or higher turbine cut in speeds, with regard to wind farms;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[27.]  <i>Capacity building</i>   <del>14. Instructs the Secretariat, subject to available resources, to pursue capacity building initiatives on the issue of climate change and migratory species;</del></p>	<p>Resolution 10.19                       Repeal, unnecessary header                      Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[28.]  <del>15. Encourages Parties and relevant stakeholders to make use of available funding mechanisms, such as REDD+, to support the maintenance of ecosystem services, with the close involvement of local communities, in order to improve the conservation status of migratory species;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[29.]  <del>16. Calls on universities and other scientific institutions to publish periodic scientific reviews on the following topics and urges Parties to support their production, as far as possible, with a view to ensuring that Parties have access to the best available scientific information on which to base decisions:</del></p> <ul style="list-style-type: none"> <li><del>a) the impacts of climate change on migratory species;</del></li> <li><del>b) the potential for conservation management to increase the resistance and resilience of animal populations to climate change; and</del></li> <li><del>c) the impacts of anthropogenic climate change adaptation and mitigation on migratory species;—</del></li> </ul>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[30.]  <i>Cooperation and implementation</i>   <del>17. Establishes the position of a COP Appointed Councillor for Climate Change who should prepare a programme of work on climate change, and convene an intersessional climate change working group and instructs the Secretariat to explore funding opportunities in support of this;</del></p>	<p>Resolution 10.19                       Repeal; redundant.                      The position has been established and the preamble to Resolution 11.26 “recalls” that decision.</p>

Text from Existing Recommendations	Origin/ Comment
<p>[31.]  <del>18. Requests CMS Focal Points and Scientific Councillors to work closely with and provide national UNFCCC Focal Points with expert guidance and support on how migratory species can be affected by adaptation and mitigation activities, such as renewable energy and bio-energy development, and to collaborate closely in order to develop joint solutions aimed at reducing negative impacts on migratory species;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[32.]  <del>19. Requests the Secretariat to strengthen synergies with the Secretariats of the CBD, UNFCCC, UNCCD, the Ramsar Convention, the Bern Convention, the IWC and other international instruments, in order to address more effectively the threats that climate change pose to biodiversity, whilst recognizing the distinct mandates and independent legal status of each treaty and the need to avoid duplication and to promote cost savings;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[33.]  <del>20. Invites the CBD, UNFCCC, UNCCD, Ramsar Convention, Bern Convention, IWC and other international instruments such as the Inter-American Convention (IAC) for the Protection and Conservation of Sea Turtles and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) to engage in and support CMS work related to climate change;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[34.]  <del>21. Urges Parties and encourages non-Parties to include the measures contained in this Resolution in their national climate change strategies, National Biodiversity Strategies and Action Plans (NBSAPs) and other relevant policy processes, ensuring that mitigation or adaptation activities do not result in a deterioration of the conservation status of CMS-listed species;</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[35.]  <del>22. Requests the Secretariat and the Scientific Council to examine whether provisions of the Convention, including the terms “range” and “historic coverage” in Article I, might benefit from interpretations that take account of the requirements of species in response to climate change, in view of the fact that climate change was not explicitly considered when the Convention text was signed in 1979; and</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26                       Appears to have been implemented, with an interpretation of “favorable conservation status” in paragraph 7 of Resolution 11.26</p>
<p>[36.]  <del>23. Urges Parties and encourages UNEP, multilateral development banks and other national and international donors to provide financial resources for the implementation of this Resolution.</del></p>	<p>Resolution 10.19                       Repeal; superseded by Resolution 11.26</p>
<p>[37.]  <del>2. Further urges Parties to identify which migratory species are most likely to be directly or indirectly threatened or impacted by climate change or climate change mitigation or adaptation activities, based on best available evidence and by initially assessing Appendix I species and species listed on Appendix II already known to be affected by climate change; and to transmit relevant information to the Secretariat;</del></p>	<p>Resolution 9.7                       Repeal; superseded by Resolution 11.26</p>

Text from Existing Recommendations	Origin/ Comment
<p>[38.]</p> <p><del>3. Recommends to Parties to reduce the above-mentioned threats, and to consider the impacts of climate change and land degradation, as well as the positive and negative impacts of climate change mitigation and adaptation activities on migratory species, in domestic land use and development planning;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[39.]</p> <p><del>4. Further recommends to Parties to design and implement adaptation strategies for migratory species threatened by climate change or climate change mitigation or adaptation activities, as well as related land degradation, and wherever possible act upon and fully implement advice relating to climate change as provided by the Scientific Council;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by 11.26</p>
<p>[40.]</p> <p><del>5. Further urges Parties to foster and promote capacity building to implement conservation action on migratory species threatened by climate change;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[41.]</p> <p><del>6. Encourages Parties to assist the Secretariat to establish an open-access database on scientific literature of relevance to climate change and migratory species;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[42.]</p> <p><del>7. Further encourages Parties to provide technical and financial support for Small Island Developing States and developing countries with islands to enable them to comply with recommendation 3 of this Resolution;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[43.]</p> <p><del>8. Further urges Parties to support increased capacity in the Secretariat to effectively address climate change issues in relation to migratory species, including support for the organization of a workshop at the regional level on climate change and migratory species;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[44.]</p> <p><del>9. Requests the Scientific Council, in its future work programme, to prioritise climate change adaptation concerning migratory species and to report back to CMS COP10; and in relation to this work to collaborate with other relevant work ongoing in other MEAs, such as by the Ramsar Scientific and Technical Review Panel;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[45.]</p> <p><del>10. Encourages other bodies that have relevant expertise on climate change as it affects migratory species to contribute to the work of the climate change working group of the Scientific Council;</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[46.]</p> <p><del>11. Instructs the Secretariat to continue its close cooperation with the Scientific Council, the secretariats and scientific bodies of the CMS daughter agreements, and other biodiversity organizations and biodiversity related bodies, to produce scientific and technical advice to assist CMS Parties introduce adaptation measures to counteract the effects of climate change on migratory species; and</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by Resolution 11.26</p>
<p>[47.]</p> <p><del>12. Requests Parties and the Secretariat to coordinate the incorporation of climate change impacts and relevant adaptation measures into species-specific Action Plans.</del></p>	<p>Resolution 9.7</p> <p>Repeal; superseded by 11.26</p>

Text from Existing Recommendations	Origin/ Comment
<p>[48.]</p> <p>1. <del>Requests the Scientific Council to afford climate change high priority in its future programme of activities, and to:</del></p> <p style="padding-left: 40px;"><del>(a) Identify priorities for future research;—</del></p> <p style="padding-left: 40px;"><del>(b) Identify which migratory species, based on best available evidence, are particularly threatened by climate change;—</del></p> <p style="padding-left: 40px;"><del>(c) Review the range states list for CMS species as changes in distribution are seen as a consequence of climate change; and—</del></p> <p style="padding-left: 40px;"><del>(d) Strengthen links with other MEAs, including UNFCCC, that have undertaken research into the impacts of climate change on biodiversity and to take account of that research;</del></p>	<p>Resolution 8.13</p> <p>Repeal; superseded by Resolutions 9.7 and 11.26</p>
<p>[49.]</p> <p>2. <del>Instructs the Secretariat to work with the Scientific Council and secretariats of the CMS daughter agreements and their scientific advisory bodies on producing guidance that would help CMS Parties introduce adaptation measures to help counteract the effects of climate change on migratory species;</del></p>	<p>Resolution 8.13</p> <p>Repeal; superseded by Resolutions 9.7 and 11.26</p>
<p>[50.]</p> <p>3. <del>Calls on Parties and non-Party range states to implement, as appropriate, adaptation measures that would help reduce the foreseeable adverse effects of climate change on Appendix I species; and</del></p>	<p>Resolution 8.13</p> <p>Repeal; superseded by Resolutions 9.7 and 11.26</p>
<p>[51.]</p> <p>4. <del>Encourages the initiation of collaborative international research projects into the effects of climate change on migratory species and their habitats so as to better understand implications and appropriate policy responses.</del></p>	<p>Resolution 8.13</p> <p>Repeal; superseded by Resolutions 9.7 and 11.26</p>
<p>[52.]</p> <p><del>Requests the Scientific Council to establish a small working group to:</del></p> <p style="padding-left: 40px;"><del>a. review the results of scientific work which has been and is being done on this issue under the auspices of other bodies such as the Convention on Biological Diversity, the International Whaling Commission and the Ramsar and Climate Change Conventions;</del></p> <p style="padding-left: 40px;"><del>b. assess the relevance and importance of such work for the conservation of migratory species and the aims of the CMS;</del></p> <p style="padding-left: 40px;"><del>c. review existing scientific links between the CMS and other bodies undertaking work in this area;</del></p> <p style="padding-left: 40px;"><del>d. formulate proposals for improving and strengthening such links where necessary with the objective of ensuring that the CMS has access to the most up to date scientific information available to assist and inform its deliberations; and</del></p> <p style="padding-left: 40px;"><del>e. report its conclusions and make recommendations to the next meeting of the Scientific Council.</del></p>	<p>Recommendation 5.5</p> <p>Repeal; incorporated in Resolution 11.26</p>



<p>[53.]</p> <p style="text-align: center;"><b>Annex to Resolution 11.26</b></p> <p style="text-align: center;"><b>PROGRAMME OF WORK ON CLIMATE CHANGE AND MIGRATORY SPECIES</b></p> <p>Parties and other stakeholders should implement the actions contained in this Programme of Work according to their individual circumstances with a view to maximizing the benefits to migratory species.</p> <p>A timeline to implement the actions contained in this Programme of Work is proposed after each action. The time categories proposed are the following:</p> <p>[S]: Short term – Actions to be completed within one triennium  [M]: Medium term – Actions to be completed within two triennia  [L]: Longer term – Actions to be completed within three triennia or longer</p> <p>Actions to be completed in the medium or longer term should be started as soon as possible, where appropriate.</p> <p><b><u>Measures to facilitate species adaptation in response to climate change</u></b></p> <ul style="list-style-type: none"> <li>• Prepare species action plans for those species listed on Appendix I considered to be most vulnerable to climate change (<i>Parties and the Scientific Council, international, intergovernmental and other relevant organizations</i>). Action plans should be undertaken at an appropriate level (species or management unit level), but measures may be implemented at the national level. For species already covered by existing CMS instruments, those action plans should be developed under those instruments. For other species, range states should work collaboratively to prepare action plans at an appropriate scale. [M]</li> <li>• Improve the resilience of migratory species and their habitats to climate change, and ensure habitat availability for the full lifecycle of the species, now and in the future, <i>inter alia</i> through the following actions: <ul style="list-style-type: none"> <li>○ Identify and prioritize areas currently experiencing rapid climate impacts that are important to migratory species. (<i>Parties, scientific community and conservation stakeholders</i>); [S]</li> <li>○ Ensure that individual sites are sufficiently large, holding a variety of habitats and topography. (<i>Parties, scientific community and conservation stakeholders</i>); [L]</li> <li>○ Ensure there is physical and ecological connectivity between sites, aiding species dispersal and colonization when distributions shift. (<i>Parties, scientific community and conservation stakeholders</i>); [L]</li> <li>○ Consider the designation of seasonal protected areas or restrictions on land-use in areas where migratory species occur at critical stages in their lifecycle and would benefit</li> </ul> </li> </ul>	<p>Resolution 11.26</p> <p>Retain</p>
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<p>from such protection. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations</i>); [M]</p> <ul style="list-style-type: none"> <li>○ Undertake specific management to eliminate, counteract or compensate for detrimental impacts of climate change and other potential threats that may interact with or exacerbate climate change. (<i>Parties, scientific community and conservation stakeholders</i>); [S]</li> <li>○ Consider expanding existing protected area networks to cover important stop-over locations and sites for potential colonisation, and <i>ensure the effective protection and appropriate management of sites to maintain or to increase the resilience of vulnerable populations to extreme stochastic events. Ensure effective monitoring of the site network in order to detect threats, and act on any deterioration in site quality, implementing specific actions to address important threats to sites.</i> This may include increasing both the number and size of protected sites. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations including conservation stakeholders</i>); [M]</li> <li>○ Integrate protected areas into wider landscapes and seascapes, ensure appropriate management practices in the wider matrix and undertake the restoration of degraded habitats and landscapes/seascapes (<i>Parties, scientific community and conservation stakeholders</i>); [L]</li> <li>○ Establish, maintain and regularly review a comprehensive, inter-jurisdictional inventory of current protected areas and candidate high priority protected areas in order to coordinate future conservation efforts. (<i>Parties, scientific community and conservation stakeholders</i>); [S]</li> <li>○ Cooperate in respect of transboundary protected areas and populations, ensuring that barriers to migration are to the greatest possible extent eliminated or mitigated, and that migratory species are managed under commonly agreed guidelines. Where appropriate, this should be done within the framework of applicable CMS instruments. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations</i>); [S] and</li> <li>○ Identify migratory species that have special connectivity needs - those that are resource, area, and or dispersal limited. (<i>Parties, scientific community and conservation stakeholders</i>); [S]</li> <li>● Consider ex-situ measures and assisted colonization, including translocation, as appropriate, for those migratory species most severely threatened by climate change while bearing in mind the need to minimize the potential for unintended ecological consequences, in line with CBD COP Decision X/33 on Biodiversity and Climate Change, para 8(e). (<i>Parties, Scientific Council, and conservation stakeholders</i>).[L]</li> <li>● Periodically monitor the effectiveness of conservation actions in order to guide ongoing efforts and apply suitable adaptive responses as appropriate. (<i>Parties and scientific community</i>). [M]</li> </ul> <p><b><u>Vulnerability assessment</u></b></p> <ul style="list-style-type: none"> <li>● Identify and promote a standardized methodology for evaluating</li> </ul>	
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<p>species' vulnerability to climate change that includes the whole life-cycle of the species concerned. This may require the development and communication of new tools as appropriate. (<i>Parties, Scientific Council, scientific community, international, intergovernmental and other relevant organizations</i>).[S]</p> <ul style="list-style-type: none"> <li>• Undertake vulnerability assessments of Appendix I and II listed species at an appropriate (e.g. regional) scale, as the first priority. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations</i>). [S]</li> <li>• Once completed, undertake climate change vulnerability assessments for other migratory species to identify those most susceptible to climate change. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations</i>).[M]</li> <li>• Determine which species vulnerable to climate change should be listed or uplisted on the CMS Appendices, as appropriate. (<i>Parties</i>). [S]</li> </ul> <p><b><u>Monitoring and research</u></b></p> <ul style="list-style-type: none"> <li>• Coordinate research and monitoring efforts in relation to the impacts of climate change across the CMS Family. (<i>Parties / Signatories to CMS instruments</i>). [S]</li> <li>• Undertake research on the status, trends, distribution and ecology of migratory species. This would include identifying knowledge gaps and may require the use and refinement of existing technologies and tools (e.g. remote sensing), the development of new ones, promotion of citizen science, and coordination / knowledge exchange to improve capacity. (<i>Parties, scientific community</i>).[S]</li> <li>• Develop an understanding of migratory routes, how they are changing (e.g. using existing recoveries of ringed birds and new tracking technologies) and the connectivity between populations (e.g. using genetic approaches) to identify key sites, locations and appropriate management units for particular species. (<i>Parties, scientific community</i>).[M]</li> <li>• Identify key breeding and stopover locations, as well as key wintering sites (hotspots) for migratory species, and focus the monitoring of environmental change on these locations. (<i>Parties, scientific community</i>). [M]</li> <li>• Develop and implement monitoring regimes that are adequate to distinguish declines in populations from transboundary range shifts; diagnose the causes of decline, and to help analyse the impact of climate change on migratory species, <i>inter alia</i> through the following measures: <ul style="list-style-type: none"> <li>○ Identify and carry out research on the impacts of climate change on migratory species, including the impact on habitats and on local (human) communities dependent on the ecosystem services provided by these species. Such research should consider impacts across the full life-cycle cycle of the species concerned. (<i>Scientific community</i>); [L]</li> <li>○ Establish appropriate monitoring of habitat extent and quality and the abundance of key resources / interacting species (e.g., keystone prey or major predators) to identify changes and to inform vulnerability assessments. (<i>Parties, scientific community</i>); [M]</li> </ul> </li> </ul>	
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<ul style="list-style-type: none"> <li>○ Establish and collate monitoring of other threats, to help identify synergistic threats and correctly attribute observed changes to climate change or to other causes. This may require the use and refinement of existing technologies and tools (e.g. remote sensing), the development of new ones, promotion of citizen science, and coordination / knowledge exchange to improve capacity. (<i>Parties, scientific community</i>); [M]</li> <li>○ Ensure that monitoring is maintained in the long term, using comparative methodologies. This will require significant knowledge exchange and guidance from countries where these techniques have been developed. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations</i>); [L]</li> <li>○ Communicate and share monitoring results regularly with neighbouring and other range states (<i>Parties, international, intergovernmental and other relevant organizations</i>); [M]</li> <li>○ Model projected future impacts of climate change to inform vulnerability assessments and action plans. (<i>Scientific community</i>); [S] and</li> <li>○ Continue to identify indicator species and/or composite indicators as a proxy for wider migratory species assemblages, habitats and ecosystems, and regularly report on the state of those indicators. (<i>Scientific community, Parties, NGOs</i>). [L]</li> <li>● Periodically conduct research to test the effectiveness of, and assess the risks associated with, species adaptation measures in response to climate change. (<i>Parties, scientific community</i>). [L]</li> <li>● Continue to fill the information gaps through research and monitoring, in order to make explicit the associated synergies and any trade-offs between biodiversity conservation, mitigation and adaptation efforts. (<i>Parties, scientific community</i>). [L]</li> </ul> <p><b><u>Climate change mitigation, human adaptation, and land use planning</u></b></p> <ul style="list-style-type: none"> <li>● Identify, evaluate, prioritize and reduce the additional impacts on migratory species resulting from changes in human behaviour due to climate change (the so-called “tertiary effects”). (<i>Parties, relevant organizations</i>).[L]</li> <li>● Develop and/or revise environmental sensitivity and zoning maps, to include critical and important sites for migratory species, as an essential tool for sustainable land use planning and management and adaptation projects. (<i>Parties, scientific community, NGOs</i>). [S]</li> <li>● Use the environmental sensitivity and zoning maps to inform the selection of sites for climate change mitigation projects, such as renewable energy projects. (<i>Parties</i>).[M]</li> <li>● Develop general guidelines for mitigation and human adaptation projects to ensure that they are not harmful to migratory species. (<i>Scientific Council</i>).[S]</li> <li>● From the general guidelines develop step down guidelines at the national level for mitigation and adaptation projects to ensure that they are not harmful to migratory species. (<i>Parties, scientific community, NGOs, energy, agriculture, forestry, transport and other sectors</i>). [M]</li> <li>● Ensure that an environmental impact assessment is conducted</li> </ul>	
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<p>prior to undertaking major adaptation and mitigation projects, <u>as well as exploration and production projects</u>, taking into account impacts on migratory species. (<i>Parties, energy sector</i>). [S]</p> <ul style="list-style-type: none"> <li>• Make the monitoring of environmental impacts a standard requirement for major climate change mitigation and adaptation projects, <u>exploration and production projects</u> and for land use planning. (<i>Parties, energy sector</i>). [M]</li> <li>• Ensure that projects incorporate adaptive management in mitigation and adaptation activities. (<i>Parties</i>). [S]</li> <li>• Recognizing that there is considerable uncertainty regarding the potential effectiveness of offsetting as an approach to compensate for detrimental impacts of mitigation and human adaptation; undertake research to inform assessments of the likely role of compensatory or offsetting approaches designed to reduce and prevent detrimental impacts of mitigation and adaptation projects upon migratory species. (<i>Parties, scientific community</i>). [S]</li> <li>• Develop and apply appropriate methodologies to consider potential cumulative impacts of mitigation and adaptation projects across the entire life-cycle of migratory species, including breeding, wintering and stop-over sites, as well as impacts upon migratory routes. These should be applied at regional, national or international population levels, as appropriate. (<i>Parties, scientific community</i>). [M]</li> <li>• Ensure that where impacts on migratory species are significant, renewable energy and other climate change mitigation or adaptation structures are operated in ways that eliminate or minimize negative effects on migratory species (for example, including short-term shutdowns or higher turbine cut-in speeds, with regard to wind farms). (<i>Parties, energy sector</i>).[S]</li> <li>• Ensure that any climate change mitigation and adaptation action has appropriate social and environmental safeguards in place at all stages, taking into account the needs of CMS-listed species. (<i>Parties, multilateral development banks, and energy sector</i>). [M]</li> <li>• Ensure that the best available scientific information on the impacts of climate change on migratory species is accessible and useable for planning and decision-making. (<i>Parties, scientific community</i>). [L]</li> </ul> <p><b><u>Knowledge exchange and capacity-building</u></b></p> <ul style="list-style-type: none"> <li>• Increase awareness of the impacts of climate change on migratory species. (<i>Parties, scientific community, international, intergovernmental and other relevant organizations</i>). [L]</li> <li>• Utilize the relevant IPCC reports and other reviews for background information on climate change impacts and compile and disseminate relevant information. (<i>Parties and Scientific Council</i>).[L]</li> <li>• Commission technical reviews and best-practice guidelines and encourage the publishing, sharing and distribution of periodic scientific reviews on the following topics (<i>Parties and scientific community</i>): [S] <ul style="list-style-type: none"> <li>○ the impacts of climate change on migratory species;</li> <li>○ the potential for conservation management to increase the resistance, resilience and adaptation of migratory species populations to climate change; and</li> </ul> </li> </ul>	
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<ul style="list-style-type: none"> <li>○ the impacts of anthropogenic climate change adaptation and mitigation on migratory species.</li> <li>● Disseminate the outcomes of these reviews through the CMS website and workspace, where possible translating the results of those reviews into different languages. (<i>Scientific Council</i>). [S]</li> <li>● Establish a series of regional and sub-regional or national workshops involving scientists, NGOs, national focal points for all relevant environmental conventions, policy makers and managers to exchange and discuss information. (<i>Parties, Scientific Council, scientific community, international, intergovernmental and other relevant organizations</i>). [S]</li> <li>● Establish better links between developing country needs and developed country research through CMS family instruments to promote collaboration, coordination and actions. (<i>Parties / Signatories to CMS instruments</i>). [L]</li> <li>● Increase the capacity of natural resource managers and other decision makers and enhance their ability to address the impacts on climate change on migratory species, including through the following actions:             <ul style="list-style-type: none"> <li>○ Undertake an assessment of training needs on climate change and migratory species at the national level. (<i>Parties</i>); [S]</li> <li>○ Develop training on the use of existing and emerging tools for managing impacts of climate change on migratory species (GIS, statistical analysis etc.). (<i>Parties, scientific community</i>); [S]</li> <li>○ Explore and build on existing training courses and work with professional societies, academia, technical experts and natural resource agency training professionals to address key needs and augment adaptation training opportunities. (<i>Parties, NGOs and scientific community</i>);[S]</li> <li>○ Identify and engage with key players who have experience in training opportunities for climate change, monitoring and modelling, and share that knowledge. (<i>Parties, international, intergovernmental and other relevant organizations</i>); [S]</li> <li>○ Develop and encourage the use of existing webinars and e-learning courses on climate change and migratory species. (<i>Parties, NGOs, scientific community</i>); [M] and</li> <li>○ Increase scientific and management capacity, including through university courses up to the PhD level, to address climate change impacts on migratory species. (<i>Parties, scientific community</i>). [M]</li> </ul> </li> <li>● Develop a baseline curriculum for webinars and e-learning courses to build capacity on climate change and migratory species among natural resource professionals and decision makers. (<i>Secretariat, Scientific Council, scientific community</i>). [M]</li> <li>● Contribute technical and scientific information on climate change and migratory species to the national and central clearing house mechanism of the CBD. (<i>Parties, scientific community, NGOs and other relevant organizations</i>). [L]</li> <li>● Invite the CBD COP to encourage its national focal points to make the national clearing house mechanisms available for information on migratory species and climate change. (<i>Parties</i>).[S]</li> </ul>	
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- Monitor the effectiveness of capacity building efforts on climate change and migratory species. (*Parties*). [L]

### **Cooperation and implementation**

- Coordinate measures to facilitate species adaptation in response to climate change across the various CMS instruments. (*Parties / Signatories to CMS instruments*). [L]
- Work closely with and provide national UNFCCC Focal Points with expert guidance and support on how migratory species can be affected by human mitigation and adaptation activities, such as renewable energy and bio-energy development, and to collaborate closely in order to develop joint solutions aimed at minimizing negative impacts on migratory species. (*CMS Focal Points and Scientific Councillors*). [L]
- Promote cooperation and synergies on climate change actions amongst the CMS family instruments, including organising back-to-back meetings. (*Secretariat*). [L]
- Consolidate the CMS Climate Change Working Group as a means to advise, promote and implement actions. This could include the prioritisation and promotion of specific projects to funders. (*Scientific Council*). [S]
- Develop mechanisms for the promotion and implementation of best practices of migratory species management in light of climate change, with particular focus on hotspots. (*Parties*). [M]
- Strengthen synergies with the Secretariats of the CBD, UNFCCC, UNCCD, Ramsar Convention, World Heritage Convention, IWC, Arctic Council and CAFF, Bern Convention, and other international instruments and arrangements. (*Secretariat*). [L]
- Engage in and support CMS work related to climate change. (*CBD, UNFCCC, UNCCD, Ramsar Convention, World Heritage Convention, IWC, Arctic Council and CAFF, Bern Convention, and other international instruments and arrangements such as the Inter-American Convention (IAC) for the Protection and Conservation of Sea Turtles, international mechanisms such as the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), and other relevant international instruments and arrangements*). [L]
- Make use of available funding mechanisms to support the maintenance of ecosystem services, with the close involvement of local communities, in order to improve the conservation status of migratory species. (*Parties and relevant stakeholders*). [S]
- Put in place those legislative, administrative, management and other measures necessary to implement the actions set out in this programme of work, including the incorporation of such measures in national climate change strategies, National Biodiversity Strategies and Action Plans (NBSAPs), protected area management plans, and other relevant policy instruments and processes. (*Parties and non-parties*). [L]

Provide financial, technical, advisory and other appropriate support for the implementation of this programme of work. (*Parties, UNEP, multilateral development banks and other national and international donors*). [S]

## Annex 2

### Climate Change Draft Resolution

#### PROGRAMME OF WORK ON CLIMATE CHANGE AND MIGRATORY SPECIES

Adopted by the Conference of the Parties at its 12th Meeting (Philippines 2017)

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*Recalling* Recommendation 5.5 and Resolutions 8.13, 9.7, 10.19, and 11.26;

*Recognizing* that climate change is already having an adverse impact on migratory species and the phenomenon of animal migration (UNEP/CMS/ScC17/Inf.12);

*Recognizing* that due to climate change, ranges of migratory species are changing and that CMS instruments may need to adapt to these variations;

*Acknowledging* that changes in human activities as a result of climate change, including adaptation and mitigation measures, may have the most immediate negative impact on migratory species;

*Acknowledging* the considerable threat that climate change poses for migratory species and their habitats based upon the findings of the 5<sup>th</sup> Assessment of the Intergovernmental Panel on Climate Change (IPCC) and its Synthesis Report and Summary for Policymakers;

*Recognizing* that the best available scientific information indicates that action to help migratory species adapt to climate change is urgently required in order to meet the objectives of the Convention; to give proper effect to Articles II and III, and to the instruments adopted under Article IV, whereas at the same time there is a need to expand and refine knowledge concerning the impacts of climate change on migratory species;

*Emphasizing* the need to coordinate action to help migratory species adapt to climate change within the framework of the CMS instruments;

*Acknowledging* that recent scientific evidence indicates that the importance of current protected areas and protected area networks for migratory species conservation is not expected to diminish on account of climate change and in many instances may increase;

*Recognizing* that it will often be necessary to enhance protected areas and networks in order to maximize representativeness and thereby increasing their contribution to migratory species conservation in light of climate change, and to better integrate these into wider landscapes and seascapes;

*Mindful* of the call on Parties and Signatories to CMS instruments in Resolution 10.19 to enable the full participation in CMS and CMS instruments of States that are not currently within the range of the species involved, but are expected to become Range States in the future due to climate change;

*Further recognizing* that the understanding of certain terms in the Convention, in particular the term "historic coverage" in Article I(1)(4)(c), should be re-examined in the current era of climate change, bearing in mind that the Convention was concluded before the implications of climate change for migratory species conservation became apparent;



*Recalling* that Resolution 10.19 of the Tenth Conference of the Parties (COP10) established the position of a COP-Appointed Councillor for Climate Change and requested the preparation of a Programme of Work and the convening of an intersessional Working Group;

*Taking note* of the report of the Workshop that took place in Guácimo (Province of Limón, Costa Rica) from 9-11 April 2014, and thanking the Government of Costa Rica and its agency for protected areas, SINAC (National System for Conservation Areas), for very effectively hosting this workshop;

*Further noting* the report of the ACCOBAMS Expert Workshop on the impact of climate change on cetaceans of the Mediterranean and Black Seas that took place in Monaco on 11 June 2014, and its recommendations, including Key Messages to Governments and Others;

*Acknowledging* with thanks the contributions of the members of the Climate Change Working Group established under the Scientific Council;

*Further acknowledging* the key role of the financial donors of this project which made it possible to develop the Programme of Work, in particular the Governments of Germany and Monaco for their voluntary contributions, and SINAC and UNDP for their in-kind contributions;

*Acknowledging* the report “Climate Change Vulnerability of Migratory Species” by the Zoological Society of London (ZSL) and the report of the CMS Working Group on Climate Change, which were presented at the 16<sup>th</sup> Meeting of the Scientific Council;

*Noting with satisfaction* the outcomes of the UNEP/CMS Technical Workshop on the impact of climate change on migratory species (Tour du Valat, France, 6-8 June 2011), *thanking* the Government of Germany for financially supporting the Workshop, and *recalling* the recommendations submitted to the Workshop by members of the Scientific Council (UNEP/CMS/ScC17/Inf.12);

*Recognizing* that mitigation measures, such as renewable, low carbon and “clean” energy development, may significantly affect migratory species and their habitats depending on how the installations are sited and operated, and that further research and impact assessments, especially for new technologies, are required;

*Recalling* Resolution 11.27 on renewable energy and migratory species, which endorses the Scientific Council’s “Renewable Energy Technologies and Migratory Species: Guidelines for Sustainable Development” (UNEP/CMS/COP11/Doc.23.4.3.2);

*Recalling* Resolution 6.6 of the African-Eurasian Migratory Waterbird Agreement (AEWA), and Resolution 4.14 of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) on climate change and migratory species;

*Noting* CBD Decision X.33 on biodiversity and climate change which calls for, *inter alia*, specific measures for species that are vulnerable to climate change, including migratory species, and *recognizing* the important role of traditional knowledge and the full involvement of indigenous and local communities in planning and implementing effective activities to mitigate and adapt to climate change, as well as the need to develop appropriate assessments of ecosystem and species vulnerability, and CBD Decision XII.20, biodiversity and climate change and disaster risk reduction;

*Also noting* Ramsar Convention Resolution X.24 on climate change and wetlands;

*Noting* decisions IX/1 and IX/2 of the 9<sup>th</sup> and decision X/37 of the 10<sup>th</sup> meeting of the Conference of the Parties to the CBD concerning biodiversity and biofuels, and Ramsar COP10 Resolution X.25 on wetlands and biofuels and COP11 Resolution XI.10 on wetlands and energy issues;

*Acknowledging* the Convention on the Conservation of European Wildlife and Natural Habitats recommendation 135 on addressing the impacts of climate change on biodiversity and recommendation 143 on further guidance for Parties on biodiversity and climate change;

*Further noting* the Paris Agreement, which establishes a goal to limit the increase in global average temperature well below 2°C above pre-industrial levels, while pursuing efforts to limit the global average temperature rise to 1.5 °C;

*Conscious* of the relevance of the research undertaken by IUCN to assess the susceptibility of IUCN Red List species to climate change;

*Welcoming* the report on Climate Change and Migratory Species commissioned by the UK government in 2005 highlighting the specific adverse effects and interactions of climate change on populations of migratory species, as well as strategies for adaptation recognised by Resolution 8.13;

*Aware* of the report on Indicators of the Impact of Climate Change on Migratory Species prepared by the British Trust for Ornithology in 2008, specifically that individual species groups such as Trans-Saharan migrant birds may be a suitable indicator for assessing the impact of climate change on a number of migratory species;

*Aware* that the Small Island Developing States (SIDS) and developing countries with small islands, which are important migratory sites for various species of birds, marine mammals, reptiles and fish, are highly vulnerable to impacts of climate change and thus require immediate support including capacity building to address these issues; and

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

1. *Adopts* the “Programme of Work on Climate Change and Migratory Species” (the POW) annexed to this resolution and urges Parties and Signatories to the CMS instruments and encourages non-Parties to implement the POW as a matter of priority, if applicable and to the extent possible given the particular circumstances of each Party;
2. *Urges* Parties, despite the remaining uncertainty surrounding the full scale of the impacts of climate change on migratory species, not to delay related decision-making and action;
3. *Requests* Parties and Signatories to the CMS instruments to assess what steps are necessary to help migratory species cope with climate change and take action to give effect to the POW on Climate Change;
4. *Requests* the Scientific Council and the Working Group on Climate Change to promote work to address key gaps in knowledge and future research directions, in particular through the analysis of existing long-term and large-scale datasets;
5. *Requests* the Secretariat to ensure the integration of elements of this POW into the Companion Volume of the Strategic Plan for migratory species to ensure mainstreaming of climate change, avoiding duplication, enhancing synergies and cooperation;

6. *Instructs* the Secretariat, in collaboration with Parties and relevant international organizations, subject to the availability of funds, to address specific issues and promote the implementation of the POW and share best practice and lessons learnt in the effective mitigation of climate change impacts, including through the organization of regional workshops;

7. *Calls* on Parties and non-Parties and stakeholders, with the support of the Secretariat, to strengthen national and local capacity for the implementation of the POW and the protection of species impacted by climate change, including, *inter alia*, by developing partnerships with key stakeholders and organizing training courses, translating and disseminating examples of best practice, sharing and implementing protocols and regulations, transferring technology, and promoting the use of online and other tool to address specific issues contained in the POW;

8. *Urges* Parties and Signatories to CMS instruments and encourages Non-Parties exercising jurisdiction over areas that a migratory species inhabits or is expected to inhabit in the near future due to climate change, to participate in CMS and relevant CMS instruments, in order to promote timely conservation measures where migration patterns have changed due to climate change;

9. *Agrees* that Article I (1) (c) (4) of the Convention, on the definition of “favourable conservation status” could be interpreted as follows in light of climate change:

*According to Article I (1) (c) (4) of the Convention, one of the conditions to be met for the conservation status of a species to be taken as “favourable” is that: “the distribution and abundance of the migratory species approach historic coverage and levels to the extent that potentially suitable ecosystems exist and to the extent consistent with wise wildlife management”. Whereas there is a continued need to undertake conservation action within the historic range of migratory species, such action will increasingly also need to be taken beyond the historic range of species in order to ensure a favourable conservation status, particularly with a view to climate-induced range shifts. Such action beyond the historic range of species is compatible with, and may be required in order to meet the objectives and the obligations of Parties under the Convention;*

10. *Urges* Parties and *invites* relevant international organizations, bilateral and multilateral donors to support financially the implementation of the POW including through the provision of financial and other assistance to developing countries for relevant capacity building;

11. *Proposes* the continuation of the Climate Change Working Group, extending its membership to incorporate expertise from geographical regions currently absent, and to prioritize, facilitate and monitor the implementation of the POW;

12. *Requests* the Secretariat to liaise with the secretariats of relevant MEAs, including in particular the secretariats of the CBD, UNFCCC, UNCCD, Ramsar Convention and World Heritage Convention, in collaboration with/through the Biodiversity Liaison Group, to promote synergies and coordinate activities related to climate change adaptation including, where appropriate, the organization of back-to-back meetings and joint activities;

13. *Calls* on Parties and the Scientific Council to report progress in implementing the POW, including monitoring and the efficacy of measures taken, to COP12 in 2017, ensuring as far as possible integration into the national reports for CMS; and

14. *Further urges* Parties and Signatories to CMS instruments to enable and support the full participation in CMS of those states, where migratory species are expected to occur, in the near future due to climate change.

15. *Repeals* the following Resolutions and Recommendation:

- (f) Resolution 10.19, *Migratory Species Conservation in Light of Climate Change*;
- (g) Resolution 9.7, *Climate Change Impacts on Migratory Species*;
- (h) Resolution 8.13, *Climate Change and Migratory Species*; and
- (i) Recommendation 5.5, *Climate Change and its Implications for the Bonn Convention*.

## Annex to Resolution 11.26

### PROGRAMME OF WORK ON CLIMATE CHANGE AND MIGRATORY SPECIES

Parties and other stakeholders should implement the actions contained in this Programme of Work according to their individual circumstances with a view to maximizing the benefits to migratory species.

A timeline to implement the actions contained in this Programme of Work is proposed after each action. The time categories proposed are the following:

[S]: Short term – Actions to be completed within one triennium

[M]: Medium term – Actions to be completed within two triennia

[L]: Longer term – Actions to be completed within three triennia or longer

Actions to be completed in the medium or longer term should be started as soon as possible, where appropriate.

#### **Measures to facilitate species adaptation in response to climate change**

- Prepare species action plans for those species listed on Appendix I considered to be most vulnerable to climate change (*Parties and the Scientific Council, international, intergovernmental and other relevant organizations*). Action plans should be undertaken at an appropriate level (species or management unit level), but measures may be implemented at the national level. For species already covered by existing CMS instruments, those action plans should be developed under those instruments. For other species, range states should work collaboratively to prepare action plans at an appropriate scale. [M]
- Improve the resilience of migratory species and their habitats to climate change, and ensure habitat availability for the full lifecycle of the species, now and in the future, *inter alia* through the following actions:
  - Identify and prioritize areas currently experiencing rapid climate impacts that are important to migratory species. (*Parties, scientific community and conservation stakeholders*); [S]
  - Ensure that individual sites are sufficiently large, holding a variety of habitats and topography. (*Parties, scientific community and conservation stakeholders*); [L]
  - Ensure there is physical and ecological connectivity between sites, aiding species dispersal and colonization when distributions shift. (*Parties, scientific community and conservation stakeholders*); [L]
  - Consider the designation of seasonal protected areas or restrictions on land-use in areas where migratory species occur at critical stages in their lifecycle and would benefit from such protection. (*Parties, scientific community, international, intergovernmental and other relevant organizations*); [M]
  - Undertake specific management to eliminate, counteract or compensate for detrimental impacts of climate change and other potential threats that may interact with or exacerbate climate change. (*Parties, scientific community and conservation stakeholders*); [S]
  - Consider expanding existing protected area networks to cover important stop-over locations and sites for potential colonisation, and *ensure the effective protection and appropriate management of sites to maintain or to increase the resilience of vulnerable populations to extreme stochastic events. Ensure effective monitoring of the site network in order to detect threats, and act on any deterioration in site quality, implementing specific actions to address*

- important threats to sites.* This may include increasing both the number and size of protected sites. (*Parties, scientific community, international, intergovernmental and other relevant organizations including conservation stakeholders*); [M]
- Integrate protected areas into wider landscapes and seascapes, ensure appropriate management practices in the wider matrix and undertake the restoration of degraded habitats and landscapes/seascapes (*Parties, scientific community and conservation stakeholders*); [L]
  - Establish, maintain and regularly review a comprehensive, inter-jurisdictional inventory of current protected areas and candidate high priority protected areas in order to coordinate future conservation efforts. (*Parties, scientific community and conservation stakeholders*); [S]
  - Cooperate in respect of transboundary protected areas and populations, ensuring that barriers to migration are to the greatest possible extent eliminated or mitigated, and that migratory species are managed under commonly agreed guidelines. Where appropriate, this should be done within the framework of applicable CMS instruments. (*Parties, scientific community, international, intergovernmental and other relevant organizations*); [S] and
  - Identify migratory species that have special connectivity needs - those that are resource, area, and or dispersal limited. (*Parties, scientific community and conservation stakeholders*); [S]
- Consider ex-situ measures and assisted colonization, including translocation, as appropriate, for those migratory species most severely threatened by climate change while bearing in mind the need to minimize the potential for unintended ecological consequences, in line with CBD COP Decision X/33 on Biodiversity and Climate Change, para 8(e). (*Parties, Scientific Council, and conservation stakeholders*).[L]
  - Periodically monitor the effectiveness of conservation actions in order to guide ongoing efforts and apply suitable adaptive responses as appropriate. (*Parties and scientific community*). [M]

### **Vulnerability assessment**

- Identify and promote a standardized methodology for evaluating species' vulnerability to climate change that includes the whole life-cycle of the species concerned. This may require the development and communication of new tools as appropriate. (*Parties, Scientific Council, scientific community, international, intergovernmental and other relevant organizations*).[S]
- Undertake vulnerability assessments of Appendix I and II listed species at an appropriate (e.g. regional) scale, as the first priority. (*Parties, scientific community, international, intergovernmental and other relevant organizations*). [S]
- Once completed, undertake climate change vulnerability assessments for other migratory species to identify those most susceptible to climate change. (*Parties, scientific community, international, intergovernmental and other relevant organizations*).[M]
- Determine which species vulnerable to climate change should be listed or uplisted on the CMS Appendices, as appropriate. (*Parties*). [S]

### **Monitoring and research**

- Coordinate research and monitoring efforts in relation to the impacts of climate change across the CMS Family. (*Parties / Signatories to CMS instruments*). [S]
- Undertake research on the status, trends, distribution and ecology of migratory species. This would include identifying knowledge gaps and may require the use and

refinement of existing technologies and tools (e.g. remote sensing), the development of new ones, promotion of citizen science, and coordination / knowledge exchange to improve capacity. (*Parties, scientific community*).[S]

- Develop an understanding of migratory routes, how they are changing (e.g. using existing recoveries of ringed birds and new tracking technologies) and the connectivity between populations (e.g. using genetic approaches) to identify key sites, locations and appropriate management units for particular species. (*Parties, scientific community*).[M]
- Identify key breeding and stopover locations, as well as key wintering sites (hotspots) for migratory species, and focus the monitoring of environmental change on these locations. (*Parties, scientific community*). [M]
- Develop and implement monitoring regimes that are adequate to distinguish declines in populations from transboundary range shifts; diagnose the causes of decline, and to help analyse the impact of climate change on migratory species, *inter alia* through the following measures:
  - Identify and carry out research on the impacts of climate change on migratory species, including the impact on habitats and on local (human) communities dependent on the ecosystem services provided by these species. Such research should consider impacts across the full life-cycle cycle of the species concerned. (*Scientific community*); [L]
  - Establish appropriate monitoring of habitat extent and quality and the abundance of key resources / interacting species (e.g., keystone prey or major predators) to identify changes and to inform vulnerability assessments. (*Parties, scientific community*); [M]
  - Establish and collate monitoring of other threats, to help identify synergistic threats and correctly attribute observed changes to climate change or to other causes. This may require the use and refinement of existing technologies and tools (e.g. remote sensing), the development of new ones, promotion of citizen science, and coordination / knowledge exchange to improve capacity. (*Parties, scientific community*); [M]
  - Ensure that monitoring is maintained in the long term, using comparative methodologies. This will require significant knowledge exchange and guidance from countries where these techniques have been developed. (*Parties, scientific community, international, intergovernmental and other relevant organizations*); [L]
  - Communicate and share monitoring results regularly with neighbouring and other range states (*Parties, international, intergovernmental and other relevant organizations*); [M]
  - Model projected future impacts of climate change to inform vulnerability assessments and action plans. (*Scientific community*); [S] and
  - Continue to identify indicator species and/or composite indicators as a proxy for wider migratory species assemblages, habitats and ecosystems, and regularly report on the state of those indicators. (*Scientific community, Parties, NGOs*). [L]
- Periodically conduct research to test the effectiveness of, and assess the risks associated with, species adaptation measures in response to climate change. (*Parties, scientific community*). [L]
- Continue to fill the information gaps through research and monitoring, in order to make explicit the associated synergies and any trade-offs between biodiversity conservation, mitigation and adaptation efforts. (*Parties, scientific community*). [L]

### **Climate change mitigation, human adaptation, and land use planning**

- Identify, evaluate, prioritize and reduce the additional impacts on migratory species resulting from changes in human behaviour due to climate change (the so-called

“tertiary effects”). (*Parties, relevant organizations*).[L]

- Develop and/or revise environmental sensitivity and zoning maps, to include critical and important sites for migratory species, as an essential tool for sustainable land use planning and management and adaptation projects. (*Parties, scientific community, NGOs*). [S]
- Use the environmental sensitivity and zoning maps to inform the selection of sites for climate change mitigation projects, such as renewable energy projects. (*Parties*).[M]
- Develop general guidelines for mitigation and human adaptation projects to ensure that they are not harmful to migratory species. (*Scientific Council*).[S]
- From the general guidelines develop step down guidelines at the national level for mitigation and adaptation projects to ensure that they are not harmful to migratory species. (*Parties, scientific community, NGOs, energy, agriculture, forestry, transport and other sectors*). [M]
- Ensure that an environmental impact assessment is conducted prior to undertaking major adaptation and mitigation projects, as well as exploration and production projects, taking into account impacts on migratory species. (*Parties, energy sector*). [S]
- Make the monitoring of environmental impacts a standard requirement for major climate change mitigation and adaptation projects, exploration and production projects and for land use planning. (*Parties, energy sector*). [M]
- Ensure that projects incorporate adaptive management in mitigation and adaptation activities. (*Parties*). [S]
- Recognizing that there is considerable uncertainty regarding the potential effectiveness of offsetting as an approach to compensate for detrimental impacts of mitigation and human adaptation; undertake research to inform assessments of the likely role of compensatory or offsetting approaches designed to reduce and prevent detrimental impacts of mitigation and adaptation projects upon migratory species. (*Parties, scientific community*). [S]
- Develop and apply appropriate methodologies to consider potential cumulative impacts of mitigation and adaptation projects across the entire life-cycle of migratory species, including breeding, wintering and stop-over sites, as well as impacts upon migratory routes. These should be applied at regional, national or international population levels, as appropriate. (*Parties, scientific community*). [M]
- Ensure that where impacts on migratory species are significant, renewable energy and other climate change mitigation or adaptation structures are operated in ways that eliminate or minimize negative effects on migratory species (for example, including short-term shutdowns or higher turbine cut-in speeds, with regard to wind farms). (*Parties, energy sector*).[S]
- Ensure that any climate change mitigation and adaptation action has appropriate social and environmental safeguards in place at all stages, taking into account the needs of CMS-listed species. (*Parties, multilateral development banks, and energy sector*). [M]
- Ensure that the best available scientific information on the impacts of climate change on migratory species is accessible and useable for planning and decision-making. (*Parties, scientific community*). [L]

### **Knowledge exchange and capacity-building**

- Increase awareness of the impacts of climate change on migratory species. (*Parties, scientific community, international, intergovernmental and other relevant organizations*). [L]
- Utilize the relevant IPCC reports and other reviews for background information on climate change impacts and compile and disseminate relevant information. (*Parties and Scientific Council*).[L]



- Commission technical reviews and best-practice guidelines and encourage the publishing, sharing and distribution of periodic scientific reviews on the following topics (*Parties and scientific community*): [S]
  - the impacts of climate change on migratory species;
  - the potential for conservation management to increase the resistance, resilience and adaptation of migratory species populations to climate change; and
  - the impacts of anthropogenic climate change adaptation and mitigation on migratory species.
- Disseminate the outcomes of these reviews through the CMS website and workspace, where possible translating the results of those reviews into different languages. (*Scientific Council*). [S]
- Establish a series of regional and sub-regional or national workshops involving scientists, NGOs, national focal points for all relevant environmental conventions, policy makers and managers to exchange and discuss information. (*Parties, Scientific Council, scientific community, international, intergovernmental and other relevant organizations*). [S]
- Establish better links between developing country needs and developed country research through CMS family instruments to promote collaboration, coordination and actions. (*Parties / Signatories to CMS instruments*). [L]
- Increase the capacity of natural resource managers and other decision makers and enhance their ability to address the impacts on climate change on migratory species, including through the following actions:
  - Undertake an assessment of training needs on climate change and migratory species at the national level. (*Parties*); [S]
  - Develop training on the use of existing and emerging tools for managing impacts of climate change on migratory species (GIS, statistical analysis etc.). (*Parties, scientific community*); [S]
  - Explore and build on existing training courses and work with professional societies, academia, technical experts and natural resource agency training professionals to address key needs and augment adaptation training opportunities. (*Parties, NGOs and scientific community*);[S]
  - Identify and engage with key players who have experience in training opportunities for climate change, monitoring and modelling, and share that knowledge. (*Parties, international, intergovernmental and other relevant organizations*); [S]
  - Develop and encourage the use of existing webinars and e-learning courses on climate change and migratory species. (*Parties, NGOs, scientific community*); [M] and
  - Increase scientific and management capacity, including through university courses up to the PhD level, to address climate change impacts on migratory species. (*Parties, scientific community*). [M]
- Develop a baseline curriculum for webinars and e-learning courses to build capacity on climate change and migratory species among natural resource professionals and decision makers. (*Secretariat, Scientific Council, scientific community*). [M]
- Contribute technical and scientific information on climate change and migratory species to the national and central clearing house mechanism of the CBD. (*Parties, scientific community, NGOs and other relevant organizations*). [L]
- Invite the CBD COP to encourage its national focal points to make the national clearing house mechanisms available for information on migratory species and climate change. (*Parties*).[S]
- Monitor the effectiveness of capacity building efforts on climate change and migratory species. (*Parties*). [L]

## **Cooperation and implementation**

- Coordinate measures to facilitate species adaptation in response to climate change across the various CMS instruments. (*Parties / Signatories to CMS instruments*). [L]
- Work closely with and provide national UNFCCC Focal Points with expert guidance and support on how migratory species can be affected by human mitigation and adaptation activities, such as renewable energy and bio-energy development, and to collaborate closely in order to develop joint solutions aimed at minimizing negative impacts on migratory species. (*CMS Focal Points and Scientific Councillors*). [L]
- Promote cooperation and synergies on climate change actions amongst the CMS family instruments, including organising back-to-back meetings. (*Secretariat*). [L]
- Consolidate the CMS Climate Change Working Group as a means to advise, promote and implement actions. This could include the prioritisation and promotion of specific projects to funders. (*Scientific Council*). [S]
- Develop mechanisms for the promotion and implementation of best practices of migratory species management in light of climate change, with particular focus on hotspots. (*Parties*). [M]
- Strengthen synergies with the Secretariats of the CBD, UNFCCC, UNCCD, Ramsar Convention, World Heritage Convention, IWC, Arctic Council and CAFF, Bern Convention, and other international instruments and arrangements. (*Secretariat*). [L]
- Engage in and support CMS work related to climate change. (*CBD, UNFCCC, UNCCD, Ramsar Convention, World Heritage Convention, IWC, Arctic Council and CAFF, Bern Convention, and other international instruments and arrangements such as the Inter-American Convention (IAC) for the Protection and Conservation of Sea Turtles, international mechanisms such as the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES), and other relevant international instruments and arrangements*). [L]
- Make use of available funding mechanisms to support the maintenance of ecosystem services, with the close involvement of local communities, in order to improve the conservation status of migratory species. (*Parties and relevant stakeholders*). [S]
- Put in place those legislative, administrative, management and other measures necessary to implement the actions set out in this programme of work, including the incorporation of such measures in national climate change strategies, National Biodiversity Strategies and Action Plans (NBSAPs), protected area management plans, and other relevant policy instruments and processes. (*Parties and non-parties*). [L]

Provide financial, technical, advisory and other appropriate support for the implementation of this programme of work. (*Parties, UNEP, multilateral development banks and other national and international donors*). [S]