



# CONVENTION ON MIGRATORY SPECIES

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## THE SECOND DRAFT OF THE STRATEGIC PLAN FOR MIGRATORY SPECIES 2015-2023

**Compilation of comments from Scientific Councillors**

### Summary

Under this cover a synthesis of the comments received from Scientific Councillors on the second draft of the Strategic Plan for Migratory species 2015-2023 is reproduced.



*Developing the Strategic Plan for Migratory Species 2015-2023*

**2nd draft of the Strategic Plan for Migratory Species**

Compilation of comments from Scientific Councillors

**INTRODUCTION**

The Strategic Plan for Migratory Species 2015-2023 (2<sup>nd</sup> draft, February 2014) was circulated on 31 March 2014 to Council Members and posted on the ScC web-based Workspace, inviting comments by a deadline of 30 May 2014.

The three responses received from Councillors to date are synthesised below.

Input on the draft is still being collated from Contracting Parties and other consultees, prior to the preparation of a 3<sup>rd</sup> draft during July.

The same 31 March 2014 Scientific Council consultation also requested comments from Councillors on a set of proposed titles for indicators relating to the targets in the draft Plan. A compilation of responses on that topic is provided in a separate document.

(The draft Strategic Plan and Working Group documents can be found here:  
<http://www.cms.int/en/documents/strategic-plan/welcome>)

**Respondent 1**

The 2nd draft of the Strategic Plan covers all basic aspects of modern mutual relations of humans and migrating animals, taking into account operating world modern practice of resource management of these species, prospective ways and means of implementation, achievement of the planned purposes, and cooperation and partnership principles among the Convention Parties.

The introduction of the SPMS will be very timely in the case of my country. Our National Biodiversity Strategy and Action Plan has been updated and is due to be implemented, and in many respects it will be possible to coordinate this with the proposed SPMS.

**Respondent 2**

*Target 2: (Multiple values of migratory species and their habitats have been integrated into international, national, and local development and poverty reduction strategies and planning processes, and are being incorporated into national accounting, as appropriate, and reporting systems):*

There appears to be a gap here. Integration of migratory species values in national and sectoral policies does not ensure success. In many cases these policies exist only on paper. There is a need to translate them into action plans formulated by target communities or in areas where threats to migratory birds have been identified. This would constitute another target, which could be Target 2a, as follows: “Translate these policies into action plans formulated by target communities in areas where threats to migratory birds have been identified”. (An indicator could be “Action plans formulated in furtherance of policies adopted”).

*Target 4: (Incentives, including subsidies, harmful to migratory species, and/or their habitats are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation of migratory species and their habitats are developed and applied, consistent with engagements under the CMS and other relevant international obligations and commitments.):*

There might be a need to have a sub-target here relating to the role of civil society and other conservation groups in conducting valuation studies of areas earmarked for conversion, to show that there would be more economic advantage to be gained from conservation of these areas.

**Respondent 3**

*Target 1: (People are aware of the multiple values of migratory species and their habitats and migratory systems, and the steps they can take to conserve them and ensure the sustainability of any use):*

In many different cultures across the globe, migration has fascinated man since millennia. However much can still be done to make people fully aware of the importance of migratory species and the threats they are confronted with. General

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concepts which should be conveyed are the relevance of migration as a natural phenomenon per se, the important contribution of migratory species to global biodiversity, the energy flows and ecological impacts mediated by migratory species, the cultural and political role of migratory species as a key to accept the concept of the need for global cooperation and partnership for conservation.

Target 2: *(Multiple values of migratory species and their habitats have been integrated into international, national, and local development and poverty reduction strategies and planning processes, and are being incorporated into national accounting, as appropriate, and reporting systems):*

With their long movements across land, waters and skies migratory species connect sites, habitats and cultures. Migration has always been one of the most, when not the most, fascinating natural phenomenon for man. Still nowadays, the interest for people towards migration remains very high; this fascination is the reason why eco-tourism so often involves areas which are important for concentrations and ease of observation of migratory species. Hence the many different values of migratory species, which are key for the functionality of the different ecosystems they use during their annual cycle, and contribute to crucial ecological components like pollination, but which are also important - and increasingly so – for ecotourism world-wide. Taking into account the different roles migratory species play within natural as well as man-modified ecosystems, as well as on human economic activities – from crop production to tourism – is an important target, whose achievement at the global level can be significantly influenced by CMS.

Target 3: *(National, regional, and international governance arrangements and agreements affecting migratory species and their migratory systems have improved significantly, making relevant policy, legislative and implementation processes more coherent, accountable, transparent, participatory, equitable and inclusive):*

A unique feature of migratory species has to do with the fact that same individual animals are moving across time and space, which leads them regularly visiting different countries during their annual cycle, as formally recognized by the Convention text. art. 1a. This phenomenon crosses biology and phenology of migratory species with the political responsibilities for the conservation of individuals, populations and species shared by different countries. Conservation strategies for migratory species therefore call for international cooperation by definition. Differently from resident species, migrants never fall under the jurisdiction of a single country. Hence, general policies, active conservation measures and management regimes involving migratory species need to be based on common scientific background and be fully shared, participated by all social components involved with migratory species, from Governments to stakeholders, from the scientific community to indigenous peoples. Accountability for policies adopted for migratory species is key to identify and monitor the responsibility of each of the countries involved in the routes of a given population or taxon.

Target 4: *(Incentives, including subsidies, harmful to migratory species, and/or their habitats are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation of migratory species and their habitats are developed and applied, consistent with engagements under the CMS and other relevant international obligations and commitments):*

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Migratory species are important from different perspectives. Their role for the functionality of ecosystems and for various categories of human economic activities allows a wide potential for positive incentives for their conservation. Scientific information is widely available – yet should be further developed – to consider the needs of migratory species in terms of habitats structure and geographical and seasonal availability, protection from excessive disturbance, protection from unsustainable harvesting; this wealth of information is the basis on which identifying positive incentives to apply, in order to satisfy the full implementation of the relevant legislation for the conservation of migratory species, and CMS in particular.

*Target 5: (Governments, key sectors and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption, keeping the impacts of natural resource use on migratory species well within safe ecological limits to promote the favourable conservation status of migratory species and maintain the quality, integrity, resilience, and connectivity of their habitats and migratory routes):*

Sustainability in production and consumption is key for the conservation of any ecosystem and their various biotic and abiotic components. When applied to migratory species, however, this perspective again calls for coordination of policies at the international scale. It is therefore particularly important to base decisions on detailed knowledge on how natural resources are used by migratory species across time and space. This is a further reason why detailed knowledge of connectivity among habitats used by migratory species is a crucial component of a proper planning of production and use of these resources.

*Target 6: (Fisheries and hunting have no significant direct or indirect adverse impacts on migratory species, their habitats or their migration routes, and impacts of fisheries and hunting are within safe ecological limits):*

Natural populations of migratory species are subject to natural mortality. As any other animal populations, also those of migratory species can be subject to harvesting by man. The key requisite for such harvesting to be sustainable for the population is that the deriving loss of individuals (which equals mortality from a population perspective), would not exceed, hence not be additive, to the one deriving from natural mortality. In the specific case of migratory species any harvesting model needs taking into account the seasonally variable distribution of individuals along their migratory routes. Also the seasonal and geographic distribution of man-induced mortality=harvesting has important consequences on the demography of populations. In particular, harvesting should not affect the “capital” of breeders and rather concentrate on the same population components which are most affected by natural mortality and on seasonal phases when natural mortality occurs most. Hence detailed knowledge is required on: species- and population-specific routes, spatio-temporal distribution of natural mortality, annual productivity, survival estimates. This information will form the basis for sustainable and adaptive harvesting models which will properly take into account flyway-based demographic parameters of populations to be harvested. Models will need adopting flyway-scale adaptive harvesting schemes to respond to inter-annual changes in productivity/survival/dispersal, hence to changes in the sex- and age- class composition of the harvested populations. These adaptive harvesting models will need being shared across countries involved in harvesting, as well as those which do not possibly harvest a given population or species, still being featured by the presence of these animals.

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Shared harvesting models will be scientifically endorsed by the CMS Scientific Council and will represent examples of best practice in the sustainable use of populations of migratory species which CMS will offer to consideration of other MEAs also within a CSAB perspective.

*Target 7: (Multiple anthropogenic pressures have been brought to levels that are not detrimental to the conservation of migratory species or to the functioning, integrity, ecological connectivity and resilience of their habitats):*

Migratory species are highly adapted to take advantage of the best possible ecological conditions they can benefit from across time and space. Such adaptations, however, also imply the absolute need, for migratory species, for such conditions to be available along the annual cycle and in the specific areas migrants will be visiting (e.g., phases of accumulation of energy resources for migration, breeding/spawning areas, sites of passage/concentration of individuals). Human activities can affect migratory species both directly (when causing direct mortality) and indirectly (e.g., when causing loss of opportunities to use a given habitat, or when affecting breeding opportunities). As a sound basis for integrated conservation strategies for migratory species, the best possible knowledge is required of the spatio-temporal distribution of these species, of the connectivity mediated by migratory species across sites and habitats, and of the spatio-temporal distribution of the human activities potentially harmful for migratory species. Analyses of available datasets on causes of mortality in migratory species as induced by various categories of human-related factors is a key requisite to properly plan conservation priorities aimed to reduce such mortality. Such analyses will need being stimulated and supported through the involvement of top specialists. When information would be missing, monitoring schemes will need being set up in order to obtain such data. This will also include prioritizing actions aimed to filling knowledge gaps from less known or unknown areas/habitats distributed along migratory routes. For this purpose, monitoring protocols will be needed in order to gather information through a common scientific approach; these monitoring schemes will offer excellent opportunities to CMS to stimulate activities based on citizens' science. In order to monitor the effectiveness of conservation decisions and actions, scientifically sound evaluation of man-induced mortality caused by the different categories of human activity will allow evaluating whether these have been brought to non-detrimental levels for migratory species.

*Target 8: (The conservation status of threatened migratory species has considerably improved throughout their range):*

There are several positive examples of large-scale and multi-species monitoring schemes on migratory animals which are often in place since long. In order to fulfil this task, in areas/cases/species where standardised protocols to collect populations status data be not available yet, CMS will have the opportunity to support capacity building in order to set up common and shared monitoring programmes. CMS will also need to seek maximum contact and cooperation with monitoring initiatives carried out by other conservation instruments, stakeholders or the international research community. A specific effort will be needed from CMS to stimulate analyses of connectivity across habitats as deriving from spatio-temporal movements of migratory species. A general and global overview of the available analytical models to describe and monitor connectivity will be needed in order to maximize knowledge of connectivity across the

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various groups of taxa. Possible available datasets on habitat use by migratory species should be the target of analytical efforts supported through CMS, given their potential to improve our understanding of the ecological role and conservation value of the different habitat typologies included in migratory systems of different taxa.

Target 9: *(International action and cooperation between States for the conservation and effective management of migratory species fully reflects a migratory systems approach, in which all States sharing responsibility for the species concerned engage in such actions in a concerted way):*

Again, the first step to fulfil this most important target is a detailed knowledge of species- and population-specific migratory routes. Based on this knowledge, countries sharing same routes will have the opportunity to share information on conservation legislation applied to same species/groups of taxa. This cooperation will be crucial to identify possible gaps in conservation and management measures, as well as to evaluate the scientific basis of existing legislation, in order to improve the biological effects of concerted actions. CMS direct experience in capacity building on conservation issues involving migratory species is the starting point to fill knowledge but also legislation gaps along main migratory systems.

Target 10: *(All key habitats and sites for migratory species are identified and included in area-based conservation measures so as to maintain their quality, integrity, resilience and functioning in accordance with the implementation of Aichi Target 11):*

During their annual cycle, migratory animals make variable use of the various habitats which compose their migratory systems, the latter implying a series of sites visited for variable length of time. Knowledge of such use is key to understand the ecological role of the different habitat typologies and sites, which is key to decide on networks of sites/habitats to protect and prioritize actions, in order to maximise conservation outputs of the likely scanty financial resources available for such initiatives. Optimal strategies for prioritizing actions and investment will have to be based on knowledge of what are the primarily crucial habitats/sites along migratory systems. Review of the existing information across the CMS Parties community as well as Family will be a first step, followed by the involvement of the international scientific community and stakeholders. Preliminary efforts along these lines may significantly help in prioritizing actions and maximizing results.

Target 11: *(Migratory species and their habitats which provide important ecosystem services are maintained at or restored to favourable conservation status, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable):*

Actions foreseen for target 10 on habitat use will offer a solid contribution to this task. A particular emphasis, concerning local social human components, will have to be given to services of direct economic value (e.g., pollinations of cultivated plants). Updated scientific information on ecological role of migratory species could be reviewed in order to throw light on potential ecological services towards human activities which may have not yet been identified/described. The latter could be realised through a detailed search and ensuing review within the web of science.



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**Target 12:** *(The genetic diversity of wild populations of migratory species is safeguarded, and strategies have been developed and implemented for minimizing genetic erosion):*

Migration as a phenomenon often contributes to gene flow across taxa, as well as to colonisation of new habitats and areas. Individuals belonging to different populations may, e.g., share same sites in parts of their non-breeding period, which may increase gene flow between populations which can be otherwise distributed in different geographical areas during the breeding season. Migration as a fast adaptive response to environmental conditions and climate also very often implies polymorphism in genes which code migratory behaviour. This genetic potential to quickly adapt to a changing environment is, e.g., key for the possibility of migratory species to adapt to the environmental consequences of climate change. As a results of natural selection, the genetic diversity of migratory species is therefore of particular relevance and importance more than ever as a unique study case to understand what are the potentials and limits of biodiversity to adapt to climate change. Migratory species are also the ancestors of domestic animals of economic importance to man, who has selected characters and features out of the natural genetic diversity of wild migrants. Given the existence of global repositories of genetic data, an effort could be made to involve these databases in a global review of migratory taxa for which genetic data are available, starting from a list of taxa relevant for CMS. This exercise would also offer a perspective of the gaps in knowledge we might easily find concerning taxa/groups of taxa of special conservation priority; such gaps could be offered to the scientific community to stimulate interest in investigating these taxa/groups of taxa.

**Target 13:** *(Priorities for effective management and conservation of migratory species and migratory systems have been included in the development and implementation of national biodiversity strategies and action plans, where relevant, with reference to regional CMS agreements and action plans and their regional implementation bodies):*

Again, the perspective of shared political responsibilities as uniquely offered by migratory species and hence CMS can be the driving force to try and involve Countries – be them Parties to CMS or not – to get involved in a global overview of the role migratory species have within the relevant national legislation, biodiversity strategies and action plans. CMS has the leading role as the global reference to enhance national legislation from a migratory species perspective.

**Target 14:** *(The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of migratory species, their habitats and migratory systems, and their customary sustainable use of biological resources, are respected, subject to national legislation and relevant international obligations, with the full and effective participation of indigenous and local communities, thereby contributing to the favourable conservation status of migratory species and the ecological connectivity and resilience of their habitats):*

Migration has fascinated man since millennia. Migratory species have been important in local economies all over the world, as a source of food and commodities for human cultures and peoples in the most diverse habitats on Earth. The wealth of knowledge, traditions, art linked to migratory species among indigenous peoples on all continents represents a huge value to be preserved and used also for the future of these human cultures. CMS has the potential to play a leading role in involving indigenous peoples in

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an effort to share their local knowledge at a global level, also making best use of existing and most efficient coordination among indigenous peoples in the different continents. This traditional knowledge should be fully valued through matching it with the information derived from modern science, which will contribute to explain how strictly based on the biology of migratory animals such indigenous knowledge is since centuries ahead of modern science being on stage. Based on their cultures, indigenous peoples will then have to be fully involved in conservation and management strategies for migratory species, taking into account the economic value of migratory species in the modern world, with a particular emphasis on non-consumptive “use” of migratory animals through eco-tourism activities which will need resulting in a direct and significant contribution to local economies. Indigenous peoples will contribute to this process also through their philosophical views of the ideal relationship to be foreseen between a non-consumptive use of migratory species within the deepest respect of the right of animals to live per se.

*Target 15: (The science base, information, awareness, understanding and technologies relating to migratory species, their habitats and migratory systems, their value, functioning, status and trends, and the consequences of their loss, are improved, widely shared and transferred, and effectively applied):*

Here migratory species and CMS can really play a unique role. Without having to further stress what already very clearly pointed out in the covering note, migration by definition implies standardisation of methods and protocols used to monitor and study same species and individuals across time and space. Given the interest devoted to migration within the global scientific community since centuries now, unique datasets exist on migratory species, almost invariably built also through the voluntary involvement of citizens. It is of key importance for CMS, in order to maximise the conservation results of actions and optimise resources, to involve the scientific community in charge of such datasets in the use of existing information and in the planning of the most urgently required analyses on general aspects like connectivity and impact of human activities and climate change on migratory species. CMS will have the chance and role to contribute with pointing out the most urgent knowledge gaps to be filled for more comprehensively planned conservation strategies in the near future.

*Target 16: (The mobilization of adequate resources from all sources to effectively implement the Strategic Plan for Migratory Species has increased substantially):*

This is a typically political task with no need for scientific comments, I guess.