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INDICATIVE STRATEGIC PLAN INDICATORS

Compilation of comments from Scientific Councillors

Summary

Under this cover a synthesis of the comments received from Scientific Councillors on possible indicators for the Strategic Plan for Migratory Species, as proposed in document UNEP/CMS/ScC18/Inf.3.2, is reproduced.

*Developing the Strategic Plan for Migratory Species 2015-2023***INDICATIVE STRATEGIC PLAN INDICATORS**

Compilation of comments from Scientific Councillors

INTRODUCTION

The Strategic Plan for Migratory Species 2015-2023 (2nd draft, February 2014) identifies a small number of potential indicators for tracking progress towards the Plan's 16 targets.

Given that the SPMS builds on the Aichi Targets in the Strategic Plan for Biodiversity, indicators already defined in support of the latter provide much of the basis for the proposed SPMS measures. The state of readiness of each of the biodiversity indicators for implementation (as analysed by the Ad Hoc Technical Expert Group on indicators convened under the Convention on Biological Diversity, and by the global Biodiversity Indicators Partnership) has been taken into account.

The CMS Strategic Plan Working Group, at its second meeting in November 2013, identified the critical role of the Scientific Council in providing technical guidance on indicators for the SPMS, in particular on the feasibility and suitability of the ones suggested, and on their consistency and compatibility with existing indicator processes.

Accordingly on 31 March 2014 a discussion document "Indicative Strategic Plan indicators - summary paper for consultation" was circulated to Council members and posted on the ScC web-based Workspace, inviting comments by a deadline of 30 May. The responses received have been synthesised (summarised and paraphrased) in the table below, to assist in making a final indicator selection.

(As supporting background, the discussion document listed the indicators already defined by BIP/the CBD AHTEG for the relevant Aichi Targets in each case. Some respondents commented on the wording of those existing biodiversity indicators; but since the question here is about proposals for the future SPMS, including the use or adaptation of relevant existing indicators for this purpose, only comments relating to this question are included in the compilation below).

The choices to be made are not only a matter of identifying issues on which data can be generated. They also involve careful thought as to the ability to generate adequate "storylines" on the success or otherwise of the SPMS in securing genuinely strategic outcomes and real impacts for migratory species, rather than just indicators of process implementation.

Further work in due course will be required to elaborate the necessary detail of indicator metrics, templates, sources of data, methods of reporting (including links to Convention Party national reports) and other aspects. In some cases it is hoped that this may be readily built from a "migratory species cut" of the relevant existing or already-proposed biodiversity indicators.

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

Possible indicators for the Strategic Plan for Migratory Species: comments from CMS Scientific Councillors

<p>Targets in 2nd draft Strategic Plan for MS, February 2014</p>	<p>Possible indicators <i>[Showing also the interpretation notes that were included in the document as originally circulated]</i></p>	<p>SCIENTIFIC COUNCILLOR COMMENTS</p>
<p>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.</p> <p>Links to Aichi Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.</p>	<ul style="list-style-type: none"> • Trends in awareness and attitudes to migratory species. <p><i>Note:</i> This cannot be derived from current Biodiversity Barometer data, which is based on testing awareness of the definition of the word biodiversity. Development of a new indicator would therefore be required. Some items labelled as “indicators” are given in the CMS Outreach and Communication Plan 2012-14 - these are not very suitable for the Strategic Plan target; but development of a SP indicator should probably take place in conjunction with any post-2014 rolling-forward of the O&C Plan.</p>	<p>Comment (i) Target 1 is composed of two parts; awareness and “steps they can take to conserve them...”. There are a number of steps between awareness raising and taking action on the conservation of migratory species and so there should be at least two indicators. Change in “attitude” does not appear to be very concrete and might not necessarily lead to conservation action. Suggested indicator for awareness: “Trends in level of awareness”.</p> <p>It would be difficult to have only one indicator for “steps they can take to conserve them” because the indicator would depend on what the specific conservation problem is. If the problem is poaching then the indicator should be reduced incidence of poaching, if it is collection beyond quota, then it should be reduced incidence of harvesting beyond quota, if the issue is loss of habitat then the indicator could either be decrease in area lost to habitat fragmentation or increase in habitat restored.</p> <p>Rough indicators for action taken could be: (a) Trends in incidents of illegal collection of wildlife (b) Trends in population of species of wildlife of interest (c) Trends in size and quality of habitats</p> <p>Comment (ii) An indicator would be the number of people at a number of localities (taken randomly from the population of parties) that are able to identify migratory species or understand the meaning of migratory behavior.</p>

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		<p>Parties would have to take the challenge and measure these numbers through local polls. I believe it is hard to measure attitude thereby I suggest to measure only awareness.</p> <p>The indicator would say:</p> <ol style="list-style-type: none"> 1. Trends in awareness of migratory species. 2. Trends in public engagement with migratory species. 3. Trends in communication programmes and actions promoting migratory species conservation. <p>Comment (ii) Along with social (corporate) responsibility, the value of personal responsibility of citizens is also significant. In the beginning of the period of performance of the Strategic Plan - for a number of the countries, or groups of the countries, located within the same migratory system, trends in the number of protocols (official reports) on violation of laws and rules of use of MS, or other shown sanctions, can be a good indicator.</p> <p>[Suggested indicator?] The positive tendency of the general level of followings the population of each state - the parties of the CMS, of all laws and the rules relating to migrating species, increase of the general level of moral and cultural development.</p>
<p>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.</p>	<ul style="list-style-type: none"> • Trends in integration of migratory species values in national and sectoral policies. <p><i>Note:</i> The CMS National Report Format currently asks whether the conservation of migratory species features in national or regional policies/plans, and an indicator might be developed from that foundation. Addressing migratory species through NBSAPs, which is</p>	<p>Comment (i) The suggested indicator for Target 2 appears appropriate enough. [Additional comment made on the target moved to separate compilation of comments on SPMS].</p> <p>Comment (ii) No changes recommended.</p>

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<p>Targets in 2nd draft Strategic Plan for MS, February 2014</p>	<p>Possible indicators <i>[Showing also the interpretation notes that were included in the document as originally circulated]</i></p>	<p>SCIENTIFIC COUNCILLOR COMMENTS</p>
<p>Links to Aichi Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.</p>	<p>effectively a sub-indicator of this indicator, is also specifically covered in the Report Format but belongs instead under target 13 below. Similar sub-indicators could perhaps however be considered here, e.g. for PRSPs and other globally standardized policy instruments of relevance.</p>	
<p>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.</p> <p>(No link to Aichi Targets)</p>	<ul style="list-style-type: none"> • (Governance-related indicator on CMS implementation). <p><i>Note:</i> The exact scope of this indicator remains to be elaborated, and depends on the extent to which it proves possible to develop a governance-related performance effectiveness indicator linked specifically to implementation of the CMS (being the most relevant governance framework). There would be complexities in establishing benchmarks for matters which are for national political discretion. Using established international standards on e.g. conflict resolution or access & benefit sharing would be unlikely at present to allow disaggregation of migratory species-related aspects. The most promising prospect may lie with the existing encouragement for CMS Parties to establish and operate national liaison systems or committees (target 4.5 in the existing CMS Strategic Plan). The Convention’s National Report Format asks a question on this, but at present it is simply a yes/no question as to the existence of such a system or committee.</p>	<p>Comment (i)</p> <ol style="list-style-type: none"> 1. Trends in development and implementation of policies at different levels (ordinances – local, decrees or acts – national, management plans – protected areas) securing migratory species and their habitats. 2. Trends in number of parties that create an operational interinstitutional national committee to support the implementation of sectoral and national policies protecting directly migratory species and their habitats. <p>Comment (ii) Analysis of actions undertaken for the conservation of biodiversity, including migratory species, shows that international legal and legislative initiatives are effective - international legislation is superior to national and its requirements are carried out more strictly.</p> <p><i>[Suggested indicators]:</i></p> <ol style="list-style-type: none"> 1. Bilateral and multilateral intergovernmental agreements for coordinated proportional use of resources of migratory species. 2. Adequate legal support for migratory species resource management.

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<p>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.</p> <p>Links to Aichi Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.</p>	<ul style="list-style-type: none"> • (None). <p><i>Note:</i> No specific indicator is proposed (unless perhaps there are proxy indicators for discrete taxa that could be used). The migratory species conservation community will want to pay attention to information reported on incentives and biodiversity in general under the two relevant indicators defined by the CBD AHTEG; but it is difficult to see how the data could be meaningfully disaggregated to tell a story that is specific to migratory species. Occasional case studies might be able to do so, but probably not a globally-applicable, regularly-reported indicator.</p>	<p>Comment (i) It might be “difficult to see how the data could be meaningfully disaggregated to tell a story that is specific to migratory species” but is there no possibility that this could be applied to areas needed by migratory species in a stage of their life cycle? Conversion of habitats for migratory species into other uses is usually an “economic incentive” for governments to achieve economic development. Reclamation of tidal flats or conversion of terrestrial areas for agriculture or other industries is a very common practice. Changing the governments’ plan in terms of policy changes would be difficult because the contracting parties to the CMS are the governments too. [Additional comment made on the target moved to separate compilation of comments on SPMS].</p> <p>Comment (ii)</p> <ol style="list-style-type: none"> 1. Trends in the number and value of incentives, including subsidies, harmful to migratory species, removed, reformed or phased out <i>[adapted from AHTEG list]</i>. 2. Trends in identification, assessment and establishment and strengthening of incentives that reward positive contribution to migratory species, especially aquatic species <i>[adapted from AHTEG list]</i>. 3. Trends in penalization of adverse impacts to migratory species, especially aquatic species (fishes, aquatic mammals, turtles) in fisheries. <p>Comment (iii) It is suggested to include an indicator related to the number of repealed rules affecting migratory species and their habitats on the total number of rules to repeal and, on the other hand, number of new rules that encourage their conservation.</p>

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<p>Targets in 2nd draft Strategic Plan for MS, February 2014</p>	<p>Possible indicators <i>[Showing also the interpretation notes that were included in the document as originally circulated]</i></p>	<p>SCIENTIFIC COUNCILLOR COMMENTS</p>
<p>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.</p> <p>Links to Aichi Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.</p> <p>Links to Aichi Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.</p>	<ul style="list-style-type: none"> • Status of migratory species in trade. • Wild Commodities Index for migratory animals. <p><i>Note:</i> These two indicators are proposed as migratory species "cuts" of the corresponding BIP indicators (the first of which is said to be ready for use, the second one only newly developed). As well as generating stories about the species concerned, comparisons will be possible between the migratory species sub-set and the trends for all species. These indicators address exploitation of migratory animals themselves, and thus do not really speak to the sense in which the target addresses impacts on such species from exploitation of <i>other</i> resources (that dimension may have to be caught instead by proxies defined under other targets). Nonetheless they may offer useful data on more direct exploitation (and are relevant to cooperation between CMS and CITES). NB the "footprint" indicators listed against this target below are ecosystem-based and do not lend themselves to separating out any specific migratory species storylines.</p>	<p>Comment (i) Should this [the first suggestion] refer to species, or to populations?</p> <p>Comment (ii)</p> <ol style="list-style-type: none"> 1. Trends of the number of migratory species being removed / standing out of the trade. 2. Wild commodities index for migratory animals [= <i>existing proposal</i>]. 3. Trends in the extinction risk of migratory species used in trade. 4. Trends in extent to which migratory species and ecosystem service values (aquatic and terrestrial realms needed to migratory lifecycle) are incorporated into organizational accounting and reporting. 5. Trends in area of forest, agricultural and aquaculture ecosystems under sustainable management [<i>in AHTEG list</i>]. 6. Trends in proportion of products derived from sustainable sources [<i>in AHTEG list</i>]. <p>Comment (iii) Suggests expanding the second indicator to clarify.</p>

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<p>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.</p> <p>Links to Aichi Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.</p>	<ul style="list-style-type: none"> • Proportion of migratory fish stocks in safe biological limits. <p><i>Note:</i> This indicator is proposed as a migratory species "cut" of the corresponding BIP indicator, which is said (by both BIP and AHTEG) to be ready for use. Monitoring of other aspects of this target, including hunting impacts, may be picked up through indicators defined for targets 5, 7 and 8.</p>	<p>Comment (i) This indicator appears to accept that harvesting or hunting of other migratory fish stocks could be outside of safe biological limits because it only says "a proportion of migratory fish stocks in safe biological limits". Who decides which stocks could be hunted or fished outside of safe biological limits? Instead of using the word "proportion" I suggest that attention should be given down to the level of species rather than aggregating all migratory species. It is suggested that the indicator could be "Stocks of species that are targeted for hunting or fishing are within safe biological limits" or "Limits or quotas for harvesting migratory species are set to keep their stocks within safe biological limits".</p> <p>Comment (ii)</p> <ol style="list-style-type: none"> 1. Proportion of migratory fish stocks in safe biological limits [= existing proposal]. 2. Proportion of migratory species in bycatch with recovery plans underway. 3. Trends in extinction risk of target and bycatch aquatic species [in AHTEG list]. 4. Trends in population of target and bycatch aquatic species [in AHTEG list]. 5. Trends in proportion of utilized stocks outside safe biological limits [in AHTEG list]. 6. Trends in area, frequency, and/or intensity of destructive fishing practices [in AHTEG list].

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<p>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.</p> <p>Links to Aichi Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.</p> <p>Links to Aichi Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.</p> <p>Links to Aichi target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.</p>	<ul style="list-style-type: none"> • Trends in threats to migratory species. <p><i>Note:</i> This indicator requires development, but doing so should be a priority, and while the question is complex, it should be possible to generate at least some useful data on a regular basis. Isolating migratory species threats from existing monitoring systems could be complex, and monitoring trends in e.g. distribution of “obstacles to migration” may not necessarily be usable proxies for actual impact, so those angles are problematic. CMS National Reports however generate information on threats specifically relating to migrants, and although the information is rough and anecdotal, it may provide a pragmatic entry-point. Several sub-indicators could be envisaged. (Extinction risk here is regarded as a state indicator rather than a pressure indicator, so is better considered under target 8).</p>	<p>Comment (i)</p> <ol style="list-style-type: none"> 1. Red List Index [in BIP list]. 2. Cumulative human impacts on marine and terrestrial ecosystems [in BIP list]. 3. Trends in policy responses, legislation and management plans to control and prevent threats to migratory species [adapted from AHTEG list]. <p>Comment (ii) Suggests listing the threat types, and doing this separately for different species and habitats. The AHTEG list offers a number of separate indicators for individual threat types.</p>

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<p>Target 8: The conservation status of threatened migratory species has considerably improved throughout their range.</p> <p>Links to Aichi Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.</p>	<ul style="list-style-type: none"> • Red List Index for migratory species. • Living Planet Index for migratory species. • Wild Bird Index for migratory birds. • Trends in distribution of migratory species. <p><i>Note:</i> The first three indicators proposed here are seemingly feasible sub-sets of existing indicators currently in operation. Reporting should be designed so as to relate specifically (where appropriate) to the CMS Appendices. The fourth proposed indicator is based on a CBD “priority to be developed”, and addresses the key element of favourable status for migrants which relates to maintenance of range. Graduated measurement of this for most species will be difficult; but a crude index to begin with could be built on a basis of changes in the regularly-maintained CMS lists of Range States for Annex-listed species (unlikely to show any but the most drastic and time-lagged changes; but the method could be adapted for use for example at the level of sub-national administrative regions).</p>	<p>Comment (i) No changes recommended. The wording of the indicators is adequate.</p> <p>Comment (ii)</p> <ol style="list-style-type: none"> 1. Trends in quantitative population models for the most threatened migratory species, for all areas occupied and all stages of the annual cycle. 2. Suggests amending the fourth indicator to “Trends in distribution and population size of migratory species”.
<p>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.</p>	<ul style="list-style-type: none"> • (Indicator based on range-related coverage of migratory species agreements and other concerted actions between States) <p><i>Note:</i> This indicator requires development. A large component of it (though no necessarily all) could begin from existing information on the ratification status of CMS Family Agreements and formal Concerted and</p>	<p>Comment (i) It is important to consider international cooperation and actions that address not only species range but also connectivity at the species and population levels. CMS might usefully become increasingly a “connectivity Convention”, an idea which is fundamental to sharing political responsibilities. Information on this however is unfortunately often either lacking or incomplete.</p>

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(No link to Aichi Targets)	Cooperative Actions in the framework of the CMS. To operationalize the indicator for this target however will require the additional step of relating this information to data on species ranges, since the purpose is to show completeness of international participation in respect of each of the species concerned. Much range data is already collated under CMS auspices at the level of Range State lists, which should make this possible.	<p>Comment (ii)</p> <ol style="list-style-type: none"> 1. Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for migratory species, [and of terrestrial, marine and inland water systems] <i>[adapted from AHTEG list]</i>. 2. Trends in implemented actions identified in coherent action plans by States sharing the distribution of migratory species. <p>Comment (iii) Creation of national and regional structures responsible for resource management of migratory fish and birds, including transboundary cooperation by CMS Contracting Parties for migratory fish and birds.</p>
<p>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.</p> <p>Links to Aichi Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.</p>	<ul style="list-style-type: none"> • Trends in conservation status, including connectivity, of identified habitats of key importance for migratory species. • Coverage of key habitats for migratory species in protected areas. • Management effectiveness of areas protected specifically for migratory species. <p><i>Note:</i> The first of these three indicators will require development. Its feasibility poses challenges, such as devising a valid method for systematically identifying habitats with this specific relevance, deciding how to measure changes in connectivity, and relating this meaningfully to impacts on migratory species. Indicators of fragmentation of forests and rivers are already under discussion in a wider biodiversity context, but translating these into effects on migration is difficult.</p>	<p>Comment (i) Here the use of existing datasets on migratory species habitats is key, and might be seen as a starting point. Parties should be shown the urgent need for, and benefits of, improved knowledge for the implementation of CMS.</p> <p>Comment (ii) I suggest that the third indicator be reworded thus:” Areas protected specifically for migratory species are effectively managed”.</p> <p>Comment (iii) My recommendation is to include or evaluate the following CBD AHTEG operational indicators to migratory species habitat approach:</p> <ul style="list-style-type: none"> • Population trends of forest-dependent species in forests under restoration • Trends in extent of marine protected areas, coverage of key biodiversity areas and management effectiveness • Trends in protected area condition and/or management effectiveness including more equitable management

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<p>Links to Aichi Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.</p>	<p>The migratory species conservation community will want to pay attention to information reported on more general indicators of particular habitat types and ecosystem trends which are associated with the corresponding Aichi Target, but there appears to be no good rationale upon which to propose a “cut” of any of those which could isolate migratory species factors.</p> <p>Concerning the second and third issues listed above, it may be possible to develop some kind of indicators as sub-sets of the corresponding three more generic BIP indicators, which are all classed as ready for use (with the “coverage” and “overlays” BIP indicators both contributing to the first of the two MS proposals above). Isolating the components that relate specifically to migratory species however will require work, and is likely to be challenging.</p> <p>Further elaboration of an approach to this also depends on addressing issues relating to absent or uncertain baselines for the quantitative elements of the corresponding Aichi target, and for the totality for sites regarded as critically important for migratory species.</p>	<ul style="list-style-type: none"> • Trends in representative coverage of protected areas and other area based approaches, including sites of particular importance for biodiversity, and of terrestrial, marine and inland water systems • Trends in the connectivity of protected and other area based approaches integrated into land and seascapes • Trends in the delivery of ecosystem services and equitable benefits from protected areas
<p>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.</p>	<ul style="list-style-type: none"> • Trends in delivery of ecosystem services directly dependent on migratory species. <p><i>Note:</i> The proposed indicator is a composite of the most relevant components of the CBD and BIP indicators which are matched to the Aichi target that corresponds to this proposed migratory species target, and which include some that are ready for use and some that are in development. Work would be required to define</p>	<p>Comment (i) Here we might give more emphasis to the concept of “moving” ecosystem services provided across time and space, which singles out the case of migratory species vs the generality of ecosystem services.</p> <p>Comment (ii) Health & wellbeing of communities directly dependent on ecosystem goods & services directly dependent on migratory species [<i>adapted from BIP list</i>].</p>

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<p>Links to Aichi Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.</p> <p>Link to Aichi Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>	<p>relevant selected services, to isolate and specify cause-effect dependence on named migratory species, and to devise parameters for measurement that are linked to this dependence and do not simply repeat the species-status assessments which are already the subject of target 8 above. The proposal addresses this by aiming to measure benefits that are derived by people rather than the status of the species, although this extrapolates slightly beyond the strict scope of the target (which goes only as far as securing the <i>potential for</i> benefit).</p>	
<p>Target 12: The genetic diversity of wild populations of migratory species is safeguarded, and strategies have been developed and implemented for minimizing genetic erosion.</p> <p>Links to Aichi Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and</p>	<ul style="list-style-type: none"> • Trends in genetic diversity of selected species. <p><i>Note:</i> Methods for defining, measuring and monitoring genetic diversity in this context, as well as deciding which species should/could feasibly be the subject of this indicator, will need to be worked out.</p>	<p>Comment (i) Migration is a special case in terms of gene flow mechanisms, i.e. gene flow is generally stronger in migratory species than resident ones. Connectivity across time and space needs to be better known.</p> <p>Comment (ii) Trends in genetic diversity of selected migratory species , with special relevance to those listed in CITES or global Red List.</p>

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<p>of wild relatives, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>		
<p>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.</p> <p>Links to Aichi Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.</p>	<ul style="list-style-type: none"> • Trends in integration of migratory species concerns in National Biodiversity Strategies and Action Plans. <p><i>Note:</i> Target 13 is effectively a sub-target of target 2 above, and the indicator would therefore operate as a sub-indicator of the indicator proposed there. The CMS National Report Format currently asks whether migratory species are addressed by each country's NBSAP, and an indicator might be developed from that foundation.</p>	<p>Comment (i) Although NBSAPs are called action plans, the prescribed actions are usually very broad and need further defining. A sub-indicator is proposed as follows: "Species-specific or group-specific action plans formulated and implemented".</p> <p>Comment (ii)</p> <ol style="list-style-type: none"> 1. Trends in integration of migratory species concerns in National Biodiversity Strategies, Action Plans and Management Plan/s of Protected Areas at regional and local scales relevant to protecting connectivity of migratory species. 2. Trends in effectiveness of implementation of NBSAP, Action Plans, Management Plans and other instruments in the protection of migratory species. <p>Comment (iii) The number of targeted special training events for government representatives on legal aspects of resource management relating to migratory species; and resulting implementation.</p>
<p>Target 14: The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of</p>	<ul style="list-style-type: none"> • Trends in the degree to which traditional knowledge and practices are respected through full integration, participation and safeguards in national implementation of the Strategic Plan for Migratory Species. 	<p>Comment (i) Trends in the effectiveness with which traditional knowledge and practices are respected through: full integration, participation and safeguards in implementation of National Strategic Plan for Migratory Species.</p>

Developing the Strategic Plan for Migratory Species 2015-2023

<p>Targets in 2nd draft Strategic Plan for MS, February 2014</p>	<p>Possible indicators <i>[Showing also the interpretation notes that were included in the document as originally circulated]</i></p>	<p>SCIENTIFIC COUNCILLOR COMMENTS</p>
<p>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.</p> <p>Links to Aichi Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.</p>	<p><i>Note:</i></p> <p>This indicator is modelled on one of the CBD AHTEG proposals for the corresponding Aichi Target (listed as a “priority for development”), but here referring to the Migratory Species Plan rather than the Biodiversity Plan. The “knowledge and practices” at issue would similarly need to be more specific to migratory species matters.</p> <p>The most pragmatic way to develop this indicator might be to add a question to the CMS National Report Format (accepting that this method will give an incomplete picture, given that the target applies equally to non-CMS Party countries).</p>	

Developing the Strategic Plan for Migratory Species 2015-2023

Targets in 2nd draft Strategic Plan for MS, February 2014	Possible indicators [Showing also the interpretation notes that were included in the document as originally circulated]	SCIENTIFIC COUNCILLOR COMMENTS
<p>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.</p> <p>Links to Aichi Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.</p>	<ul style="list-style-type: none"> • Number of validated publications on migratory species conservation actively disseminated for policy-relevant use. <p><i>Note:</i> This indicator requires development. The proposed indicator combines two ideas, namely scientific quality and effective application; but splitting them would be undesirable, since scientific quality by itself will not speak to achievement of the target. A number of methodological challenges will need to be surmounted in order to make this indicator operationally credible. The relevant CBD AHTEG and BIP indicators (not yet in use) refer more specifically to sub-global assessments and species inventories - both of these are included in the interpretation of “publications” here, but the indicator here should probably not be so narrowly prescribed as the AHTEG/BIP ones are. The relevant CBD AHTEG and BIP indicators address the “quality” dimension only in terms of comprehensiveness and policy-relevance - it is suggested here instead that reference to policy-relevance and “validation” provides a more appropriate yardstick for quality.</p>	<p>Comment (i) 1. Number of databases managing information on taxonomic groups of migratory species (shorebirds, forest dependent species, fishes etc.) that provide support for their conservation at a regional scale. (Example: Californian Avian Data Center – Western Hemisphere Shorebird Reserve Network databases and site evaluation tools). 2. Number of validated publications on migratory species conservation actively disseminated for policy-relevant use [= <i>existing proposal</i>].</p> <p>Comment (ii) Suggest quantifying “policy-relevant use”.</p>
<p>Target 16: The mobilization of adequate resources from all sources to effectively implement the Strategic Plan for Migratory Species has increased substantially.</p> <p>Links to Aichi Target 20: By 2020, at the latest, the mobilization of financial</p>	<ul style="list-style-type: none"> • Aggregated international flows of funding, per annum, for achieving the goals of the Strategic Plan for Migratory Species. • Amount of domestic financial support provided, per annum, to support those domestic activities which are intended to achieve the goals of the Strategic Plan for Migratory Species. 	<p>Comment (i) Aggregated international flows of funding, per annum, for achieving the goals of the Strategic Plan for Migratory Species [= <i>existing proposal</i>]. The second indicator is not clear enough or does not explicitly provide information to evaluate this target.</p> <p>Comment (ii) Suggest relating the flows/amounts per annum to gross domestic product, in both of the suggested indicators.</p>

Developing the Strategic Plan for Migratory Species 2015-2023

Targets in 2nd draft Strategic Plan for MS, February 2014	Possible indicators <i>[Showing also the interpretation notes that were included in the document as originally circulated]</i>	SCIENTIFIC COUNCILLOR COMMENTS
<p>resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels.</p> <p>Links to the CBD Resource Mobilization Strategy (COP9/11§7) and the resource mobilization target (COPXI/4): “Double total biodiversity-related international financial resource flows to developing countries, in particular least developed countries and small island developing States, as well as countries with economies in transition, by 2015 and at least maintaining this level until 2020, in accordance with Article 20 of the Convention, to contribute to the achievement of the Convention’s three objectives, including through a country-driven prioritization of biodiversity within development plans in recipient countries, using the preliminary baseline referred to in paragraph 6”.</p>	<p><i>Note:</i> These indicators are based on elements of the indicators defined for the CBD Resource Mobilization Strategy (indicators listed as “priorities for development”). Methodological challenges for developing them for application to the Migratory Species Plan will be considerable however, not least the separating-out of migratory species-specific amounts of funding, and the establishment of baseline figures for 2015. Smaller sub-sets of each issue might more feasibly be addressed, but identification of these will require further work.</p>	