Agreement on the Conservation of Albatrosses and Petrels

Sixth Meeting of Advisory Committee

Guayaquil, Ecuador, 29 August – 2 September 2011

Review of CMS Report on Policy Options for Migratory Bird Flyways

Author: CMS Flyways Working Group

Submitted by: Secretariat

Review of CMS Report on Policy Options for Migratory Bird Flyways

Author: CMS Flyways Working Group

The attached report, 'Policy Options for Migratory Bird Flyways', was commissioned by the Convention on Migratory Species (CMS), and developed by the CMS "Migratory Birds Flyways Working Group". It examines the major migratory bird flyways of the world; reviews the coverage of these flyways by existing agreements under CMS; outlines the key pressures acting on populations of 4 migratory birds; proposes priorities for the development of CMS agreements, and provides options on how these might be developed.

One of the policy options identified in this report is that the CMS help in developing a coherent conservation framework and Action Plan for marine bird species not presently covered by ACAP or the Agreement on the Conservation of African – Eurasian Migratory Waterbirds (AEWA). The Group suggests that this could perhaps best be achieved by expanding the remit and work of ACAP, in discussion with AEWA, rather than initiating any new agreement; and suggest that this option needs to be discussed, initially by ACAP and AEWA, so that the Parties to these Agreements can form a clear view on how to proceed.

Recommendation:

The Advisory Committee is requested to:

1) review the policy options identified in the report of relevance to ACAP; and

2) provide advice to the next Meeting of the Parties on the potential implications that the adoption of these policy options may have for the Agreement.

CONVENTION ON MIGRATORY SPECIES

POLICY OPTIONS FOR MIGRATORY BIRD FLYWAYS

CMS Flyways Working Group: Review 3

Colin A Galbraith

March 2011

CMS Contract No 14550 and additional staff time from Colin Galbraith Environment Limited

Policy Options for Migratory Bird Flyways

CMS Flyways Working Group: Review 3

CONTENTS **PAGE**

Executive Summary

This Report, commissioned by the Convention on Migratory Species (CMS), and developed with the CMS “Migratory Birds Flyways Working Group”, examines the major migratory bird flyways of the world; reviews the coverage of these flyways by existing agreements under CMS; outlines the key pressures acting on populations of

migratory birds; proposes priorities for the development of CMS agreements, and provides options on how these might be developed.

Present coverage

This report builds on two earlier reviews commissioned by CMS, firstly to consider the extent of knowledge about flyways, and secondly to review the existing coverage of these by agreements under the auspices of CMS.

These earlier reviews noted that:

Geographical coverage (on paper) is **strongest** in:

• Africa – Eurasia (particularly Eurasia);

• Americas (particularly North America);

• East Asia – Australasia.

Geographical coverage (on paper) is **weakest** in:

• Central Pacific;

• Central Asia;

Similarly, Pelagic (open ocean) flyways in the Atlantic Ocean, Pacific Ocean, Indian Ocean and Southern Ocean have little coverage by agreements at present.

Coverage for species (on paper) is **strongest** for:

• Waterfowl (Anatidae);

• Shorebirds/waders (Scolopacidae);

• Other migratory waterbirds such as divers (loons), grebes, cranes and herons;

• Nearctic-breeding passerines and other landbirds that migrate to the Neotropics for the non-breeding season;

• Raptors (particularly in Africa-Eurasia).

Coverage of species groups (on paper) is **weakest** for:

• Passerines (particularly in Africa-Eurasia and Asia-Pacific, though coverage is good for Nearctic-breeding migratory passerines in the Americas);

• Other landbirds (with some exceptions e.g. certain species covered through bilateral treaties in the Americas).

• Inter-tropical and intra-tropical migrants in all regions;

Priorities for Action

This review has identified the priority actions needed to take two major, interlinked steps in the conservation of migratory birds around the world:

Firstly, to put in place an overarching, and common, strategic framework for action at the global level; and secondly, and equally importantly, to use this, to focus effort and action on the key priority conservation issues impacting on migratory bird species, through the production of Action Plans.

In terms of priorities for action at the Regional level, it is clear that East, and South Asia are key areas in need of rapid action, given the number of declining species and the wide scale destruction of habitats, especially inter-tidal areas seen there. In addition, there is an urgent need for dedicated measures to focus attention on the declines in the African-Eurasian long-distance sub-Saharan land bird migrants and intra-African migrants. It is important also to clarify the best approach for CMS to adopt in the Central Asian Flyway especially for waterbirds. Considerable work has been done here over recent times and it is appropriate now to agree a way forward

There is a need to consolidate the approach to be used in South and Central America, and especially to explore whether a “whole of the Americas “ approach can be developed to migratory birds by clarifying the views of the countries involved in developing such an approach. Finally from a Regional perspective, it is important to clarify the approach to be used in the Pacific Region. This large area of ocean and islands tends at present to fall between the work of CMS in Asia and the work in the Americas.

Two groups of species in particular require additional urgent action from CMS, namely seabirds and passerines. For both these groups action is required that assists their conservation over extensive areas of land and sea.

A key action in dealing with in all these threats; species declines and habitat destruction, is the need to involve local people in the management of fragile areas; and to help them see the real value of migratory bird species and of their habitats to their own wellbeing.

Threats to migratory birds

Consideration of the threats to migratory birds has confirmed that there is, as expected, a wide range of issues impacting on populations around the world. Habitat loss, climate change, by catch, disease, contamination from different sources including from pesticides and heavy metals, unsustainable use, infrastructure developments and the effects of alien species are all significant threats at present. Habitat loss is considered to be the most important impact for non-seabirds with extensive areas used by migratory birds being destroyed each year. By catch in fishing operations and alien species are the dominant threats to seabirds. The following section summarises the key actions

Developing a new approach

In order to fill the gaps in the coverage of CMS agreements and to limit the impacts from the threats to migratory birds noted in this Report, the Flyways Working Group suggests that it is important to build on existing agreements and initiatives to provide a new overarching approach. This could take the form of generic Regional agreements, underpinned by a series of flexible action plans designed to tackle the top priorities for action in each part of the world. The Flyways Working Group suggest that this mechanism could provide a streamlined approach for the use of resources by governments that opens to way for more rapid conservation action and better opportunities for partnerships with others in future.

The following lists the key findings and actions required to make the implementation of this new approach a reality.

Tackling the Threats to Migratory Birds.

Action: Habitat loss. CMS has the potential to develop a key role in the conservation of habitats for migratory birds by ensuring that the habitat requirements of migratory birds are integrated into land use policies through Governments, other Multilateral Environmental Agreements (MEAs), UN institutions and Non Governmental Organisations. Some of this can be achieved through designation, using existing mechanisms and through the appropriate management of protected areas, but large proportions of migrants use habitats beyond these sites and conservation of these wider areas is also urgently needed. To achieve this, synergies need to be developed through scaled up collaborations, to address the drivers of change, with the Convention of Biological Biodiversity and other UN institutions especially with the Food and Agriculture Organisation (FAO) and other MEAs as appropriate. As regards the latter, topics where collaboration would be merited could be further defined in a CMS/FAO Memorandum of Cooperation, further to CMS Resolution 9.6.

Action: Climate change. The Flyways Working Group stresses the importance of CMS continuing to take action to limit the impact of climate change on migratory bird species. The Flyways Working Group notes, especially in the context of rapid climate change, that it is important to continue to monitor the status of migratory birds and their habitats; to record any changes in their ecology in some detail and increasingly to promote adaptive management to help ensure the success of conservation actions.

Action: Bycatch. The issue of bycatch is regarded by the Flyways Working Group as one of the key threats to migratory bird species and is seen as a priority for action. The group noted also the significance of other “non-use” mortality impacting on the populations of some species.

Action: Unsustainable use. The Flyways Working Group recognises the importance of CMS tackling the range of issues involved in the unsustainable use of migratory bird species. This can be done via a range of measures at the forthcoming Conference of the Parties in November 2011, and should include Resolutions designed to strengthen cooperation, promote conservation actions, highlight good practice, and where necessary, to stimulate corrective actions to address the situations highlighted in this Report. Particular focal areas where threatened species

are affected by unsustainable use include the Mediterranean, Middle East, Sahel and East Asia.

Action: Poisoning. The Flyways Working Group considers this an issue on which the Convention is uniquely placed to coordinate action, for example building on the work of AEWA regarding lead shot, to address the indiscriminate killing of carnivorous scavengers by poisoned baits, the killing of waterbirds through poisoning e.g. in Africa, and by the misuse of agrochemicals.

Action: Invasive Alien species. Dealing with invasive alien species is an issue that the Flyways Working Group considers a priority for future action by CMS. CMS action needs to be coordinated with major international initiatives on this issue with other fora, such as the CBD, Bern Convention and the EU, to ensure added value for migratory species

Action: Disease. The Flyways Working Group considers it important for the Convention to continue to work on issues related to wildlife disease, and to ensure that relevant measures are included in agreements to address these issues. Note that many countries are likely to remain particularly interested in wildlife disease related issues due to their generally high profile and potential impact. The Wildlife Disease Task Force created by CMS CoP 9 provides a mechanism to take this forward.

Action: Agricultural conflicts and pest control. CMS, FAO and international NGO's should continue to work together to develop appropriate practical solutions and to advocate relevant policy solutions in order to resolve these conflicts.

Action: Information gaps In partnership with others, CMS should encourage and promote the continuation, further development and improved coverage of internationally co-ordinated, national long-term monitoring schemes for migrant bird populations and key sites. A coherent, costed, long-term plan is needed for the creation of an effective and sustainably funded, migratory bird monitoring programme

Regional priorities

Action: New Parties In order to achieve global coverage it is essential that several large countries assist in the development of this approach. The addition of Brazil, China, Russia and the USA would allow a much greater geographical “reach” and would allow substantial additional scientific and conservation resources to be deployed. Similarly, the addition of countries and regional organisations, such as ASEAN, in SE Asia in particular, would be of real benefit in the development of conservation action there.

Action: Species listing The Flyways Working group noted the importance of achieving a more comprehensive review of species to be listed on the Appendices to CMS as this is a key building block for global co-ordination and better prioritisation of conservation action. .

Action: Americas. Notwithstanding that much of the monitoring and conservation work in the Americas is undertaken by organisations outwith the CMS family, the Flyways Working Group suggests that CMS should investigate the feasibility of working in partnership to develop an overarching conservation Action Plan for the Americas; recognising especially the established programmes of work in the North and between both continents. This initiative could initially take the form of a workshop to consider the specific needs and possible mechanisms with all the Parties and other interested countries and organisation in the Region.

Action**:** Americas. Given the specific need in relation to Neo-tropical intra-Regional migrants, CMS should review with the, range states and other key stakeholders in Central and South America, the potential for an agreement covering intra-Regional migrants (especially the so called Neotropical Austral Migrants) in the Neo-tropics.

Action: S E, East Asia and Australasia. Again, noting the extensive monitoring and conservation work done outside the CMS family in this Region, the Flyways Working Group suggests that, as with other Regions, the development of an overarching framework agreement would be an essential step in the coordination of conservation action. Other specific action plans could be used to address particular conservation issues in the Region. This should encompass non waterbird species, building on the effective groundwork already established by others.

Action: S E and East Asia and Australasia. The Flyways Working Group suggests that CMS should clarify its relationship with existing agreements and prioritise effort in relation to species using coastal and other threatened habitats such as forest areas in the Region. This is likely to require a Regional workshop with the Parties, range states and other key stakeholders to explore the options and possible initiatives. Additionally, this is likely to require a clear "new start" to building relationships across the Region to ensure that some of the key countries are involved in this work from the outset.

Action: Pacific. In a similar way to other Regions, an initial workshop to scope out the options; identify possible blockages to progress, and to map out a way ahead would be an important first step in defining the needs for conservation here. Special attention should be taken to austral trans-equatorial migrants (seabirds) where large numbers of individuals from a few important species migrate (for example Sooty shearwater).

Action: Central Asian Flyway. The Flyways Working Group suggests that CMS establishes the views of the Parties on how to take forwards existing work in the Central Asian Region. In particular, this should build on the work already done in this Region, where the existing draft action plan for waterbirds could be developed further in future. In addition CMS should valuate, with the Parties in the Region, the potential to develop a new framework agreement for the Region or to align with existing agreements, namely with the African Eurasian Waterbird Agreement (AEWA) and the Memorandum of Understanding on the Conservation of Birds of Prey in Africa and Eurasia. This should build on earlier discussions to consider synergies with AEWA in particular. The Parties should consider also the potential to initiate new agreements, probably in the form of Action Plans, to address the key conservation priorities for passerines. This overall initiative is likely to require a Regional level workshop to explore relevant issues.

Action: Europe and Africa. The Flyways Working Group stresses that maintaining the work of AEWA and developing the work on the Raptor MoU should be seen as a priority, whilst ensuring the continued activity of the single species MoUs in the

Region. Maintaining this level of activity is important, whilst seeking to develop synergies, joint working and enhancing the cost-effectiveness of delivery for all the agreements in the Region. Increasing the level of integration will be important here, while at the same time developing an overarching approach to agreements in the other Regions of the world. The key issue in taking forward new initiatives in this Region is to consider the options for the future scope and modus operandi of AEWA. The following options were highlighted at the Edinburgh Workshop:

- The status quo: AEWA dealing with waterbirds in the African-Eurasian flyway with binding action plans.

- CAF extension: extend the geographic scope of AEWA to cover the Central Asian Flyway

- Taxonomic extension: AEWA's coverage to include species other than waterbirds

- Geographic and species extension: AEWA to be the core of a wider framework birds agreement

These options were not mutually exclusive, as the second and fourth approaches could be followed in parallel, the former as a short-term interim solution while the latter, which was legally more complex, was being ratified.

In addition, it has been suggested that the development of new MoUs for single species be limited in future to allow a greater focus on the two larger agreements in this region. It was noted, however, that there is an urgent need for the development of provision for long-distance migrant landbirds, especially those that spend the non-breeding season in Sub-Saharan Africa, many of which are in severe decline.

Action: Europe and Africa Following the approach suggested for other Regions of the world, CMS should consider the co-ordination of the existing agreements and MOUs here to form a wider framework agreement, under which the existing agreements and

MoUs could administratively sit; as could any new provision for Sub-Saharan migrant landbirds.

Action**:** Marine The Flyways Working Group urges action by CMS to help in developing a coherent conservation framework and Action Plan for marine bird species not presently covered by Agreement on the Conservation of Albatross and Petrels (ACAP) or AEWA. The Group suggests that this could perhaps best be achieved by expanding the remit and work of ACAP, in discussion with AEWA, rather than initiating any new agreement; and suggest that this option needs to be discussed, initially by ACAP and AEWA, so that the Parties to these Agreements can form a clear view on how to proceed. This initiative should be taken forward in conjunction with FAO and with Regional Fishery Management Organisations. The Flyways management Group suggested that, this could, perhaps be discussed at the next meeting of ACAP in order to develop an informed view of the detailed issues involved.

Developing an Approach for the Future

Action**:** Developing the approach for the future In considering how best to respond to the species focussed priorities outlined here, the Flyways Working Group suggests that it is important to build on existing agreements and initiatives for these and related species. Equally, it does not seem practical to develop formal and strictly legally binding, stand alone agreements in every case; rather the priority is to develop action plans (that are fully funded and that are effective on the ground), set within a wider, generic legal framework. (See Diagram 1).The Flyways Working Group suggest that this mechanism could provide an approach that streamlines the use of resources by governments and that opens the way for more rapid conservation action in future.

Action: Coordination The Flyways Working Group considers that Option 2 (Wider coordination) is the only high level option that will allow the Convention to fulfil its remit over the coming triennium and beyond. It is also the only way to ensure global level coverage by agreements designed to steer conservation action on priority

species and issues. It was noted that for this approach to deliver real benefits, resources would be required in the CMS Secretariat and elsewhere, especially in the early phases of activity.

Action: Regional Framework Agreements The Flyways Working Group suggests that CMS consider this new approach; with Regional framework agreements supported by action plans focussing on the most urgent habitat and species conservation need in each Region of the world. This approach could be introduced progressively, so that existing work is not unduly disrupted.

Action: Guidelines for new agreements The Flyways Working group suggests that the guidelines presented in 6.2.1 are useful in assisting in the evaluation of any new agreement, and could be adopted by CMS as a guide to aid Parties in such deliberations.

Action: Future Resolutions The Flyways Working Group recommends that a resolution/recommendation aimed to take forward the approaches outlined in this report is developed for the next CMS CoP. Ideally this should be proposed jointly by Parties from each of the flyways of the world, so that the truly global nature of the issues are immediately obvious to the Conference of the Parties.

Action: Timescales for implementation The Flyways Working Group suggests that the set of initiatives (6.3.1-6.3.3) would help develop a global approach to the conservation of migratory birds and their habitats. It recognises that this would, of necessity need to be completed over the medium term and stresses that it is important to address the geographical and species gaps identified in this and in previous reviews.

Action: Indicators and monitoring. There is a need to harmonise the use of indicators across the work of all the international Conventions. CMS should examine the new CBD indicator set following the agreement of the new CBD strategic plan, targets and associated indicators, to ensure a degree of harmony with them. In order to provide the basic data for the development and use of indicators it is vital that

internationally coordinated national long-term bird population monitoring schemes are maintained and new schemes developed where none currently exist.

Action: Developing Regional Workshops For the Secretariat and others to consider the options for the legal basis of Framework Agreements and to consider how best to deliver the Regional workshops listed above.

Action: Action Plans: For the Secretariat and others to consider the legal basis for the creation and delivery of Action Plans as part of the overall approach.

Action: Flyways Working Group. For the Parties to consider the role of the Flyway Working Group in providing ongoing coordination and guidance in relation to the implementation of the set of initiatives (6.3.1-6.3.3).

INTRODUCTION

1.1Background and the approach used

This review, commissioned by the Convention on Migratory Species, and working with the Flyways Working Group, aims to identify the priorities for action in relation to flyway agreements for migratory birds under the Convention. It builds on the two earlier Reviews in this series that examined current arrangements and considered knowledge gaps as well as conservation priorities.

Review 1 "A review of CMS and non-CMS existing administrative/management instruments for migratory birds globally".

Presented to the 2010 meeting of the Scientific Council as UNEP/CMS/ScC 16/Doc 10 Annex 1a and 1b

Review 2 "Review of Current Knowledge of Bird Flyways, Principal Knowledge Gaps and Conservation Priorities"

Presented to the 2010 Meeting of the Scientific Council as UNEP/CMS/Sc C. 16/Doc 10 Annex 2a and 2b

The implementation of the review should be seen alongside the outcome of the parallel review process looking at the “Future Shape” of the Convention and viewed as a contribution to the Aichi targets, adopted by the Convention on Biological Diversity, (CBD) for the conservation of biodiversity by 2020; where simple mechanisms to enable conservation need to be put in place as a matter of urgency.

This review firstly seeks to identify the “ideal” situation in terms of flyway management and then looks at the practicalities and realities faced by flyway agreements and MOUs at present.

The Terms of Reference for this review are presented in Annex 3.

At the outset it is clear that there are two main needs in relation to the development of future instruments to help the conservation of migratory birds and their habitats. Firstly, there is a need to develop wider coverage of instruments at the global level, as many Regions presently do not have any overarching framework for the coordination of work. Secondly, is the need to focus action “on the ground” and to maximise the use of resources from the multitude of sources involved in the conservation of migratory birds and their habitats around the world.

This report reviews these issues and suggests a possible way forward to achieve these two outcomes.

2 THE MAJOR FLYWAYS OF THE WORLD (FROM REVIEW 2); HOW WE VIEW FLYWAYS TODAY.

2.1 Flyways

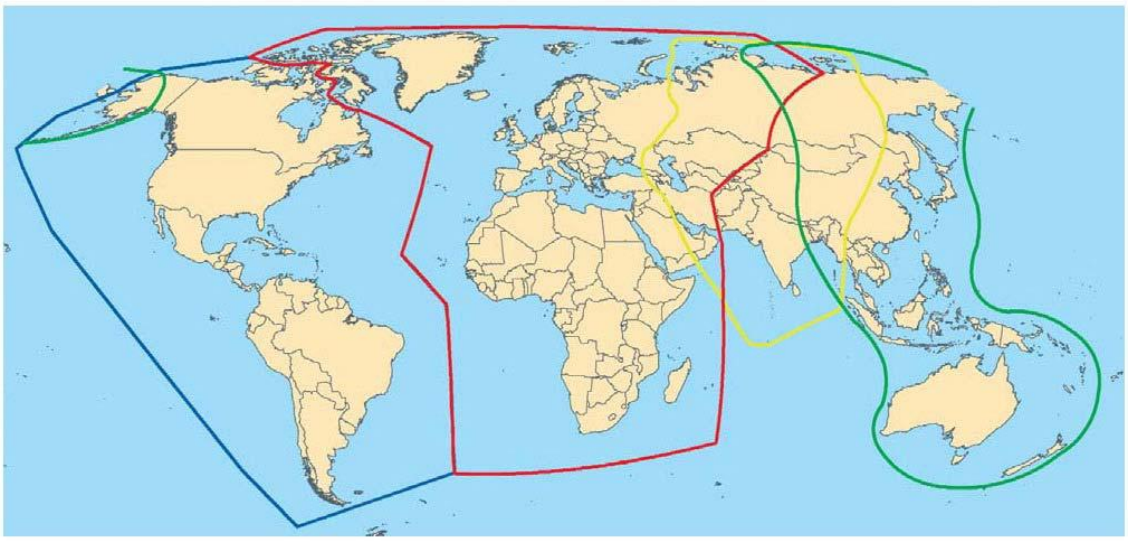
According to the CMS definition of migratory species[1], 2,274 species of birds are migratory (23% of all avian species) and of these 35% are covered by the CMS Appendices. The Americas and Asia each accounted for over 1,000 different species, Europe 450 and Africa 650. Migratory birds are therefore a key part of the world's biodiversity, inspiring and sustaining people around the world. Importantly, they now exist in a rapidly changing world, with a dramatically increasing human population requiring greater areas of land for survival; habitat destruction and increasingly apparent levels of climate change, as key pressures on their populations.

There has been considerable work done over recent decades to define and describe the major flyways of the world. Whilst the migration of many bird species does follow a number of recognisable pathways, there is a vast array of routes used by different species. In describing the overall pattern of these movements there inevitably has to be some generalisation and degree of "overview" adopted to allow governments and others to plan and manage conservation actions to help the species concerned.

The two maps below illustrate that essentially the same classification of global flyways can be presented at various scales of migration activity. The simpler presentation is seen in the first map, indicating that there can be considered to be four major flyways at the global level. It should be noted that the movements of truly marine species, such as Albatrosses, differing significantly from this pattern.

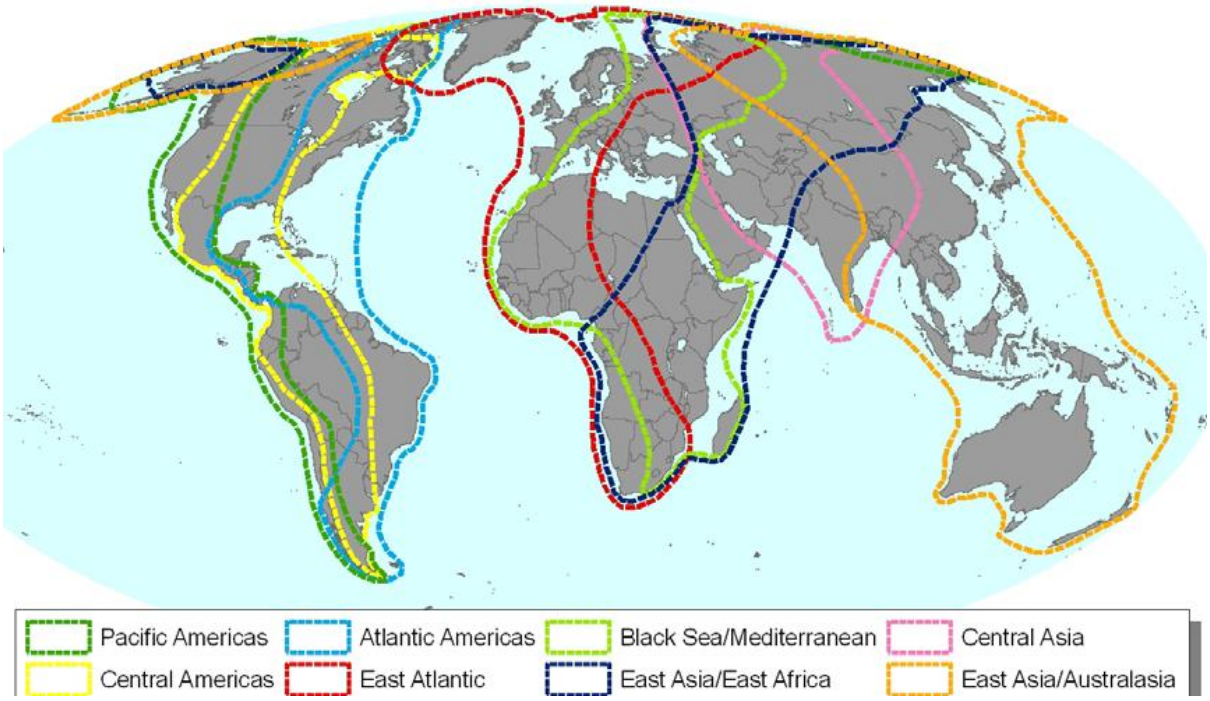
Map 1: Aggregation of flyways for migratory waterbirds. The map delineates the principal global flyway aggregations as proposed by Stroud et al. 2006. The four regional aggregations are considered here for simplicity as Americas, Africa–Eurasia, Central Asia and East Asia – Australasia. The latter two are sometimes combined as ('Asia – Pacific'). Source: Stroud *et al*. 2006. Note that this style of presentation is based on the need for administrative simplicity rather than revealing the true complexity of the systems involved, for example, showing the patterns of east-west migration across Europe and Asia.

[1] **the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries;**



Stroud D.A., G.C. Boere, C.A. Galbraith & D. Thompson. 2006. Waterbird conservation in a new millennium – where from and where to? In: *Waterbirds around the World*. Eds G.C. Boere, C.A. Galbraith & D.A. Stroud. The Stationery Office, Edinburgh, UK. p. 30–39.

Map 2 Presents a finer breakdown, and involves the recognition of eight overlapping flyways, which may prove useful for finer scale analyses of bird migration knowledge and conservation initiatives (BirdLife International, unpublished). This is the more detailed level of flyway definition adopted for Review 2, although recognizing that even this does not portray the full complexity of flyways omitting, for example, intra-tropical flyways and those of pelagic seabirds".



In practical terms it is important that CMS works to one overarching map to illustrate the major flyways, (Map 1), and uses others (such as Map 2) for finer grained analysis of migration patterns.

Note also that in addition to the four main flyways presented in Map 1 there is a case for the addition of a fifth, (and a ninth covering the same are in Map 2) covering the main Pacific Ocean, as seen in Review 1 of this series. This is a relatively poorly understood Region, requiring considerable further study.

Seabird migratory patterns can be much more complex. For example, Figure 1 below shows the migratory movements of the Sooty Shearwater *Puffinus griseus* in the Pacific. This species migrates in a figure of eight movement ranging over vast areas of the Pacific Ocean. This truly remarkable migration reveals the connections between countries in this Region, and highlights the need for action on a regional scale.

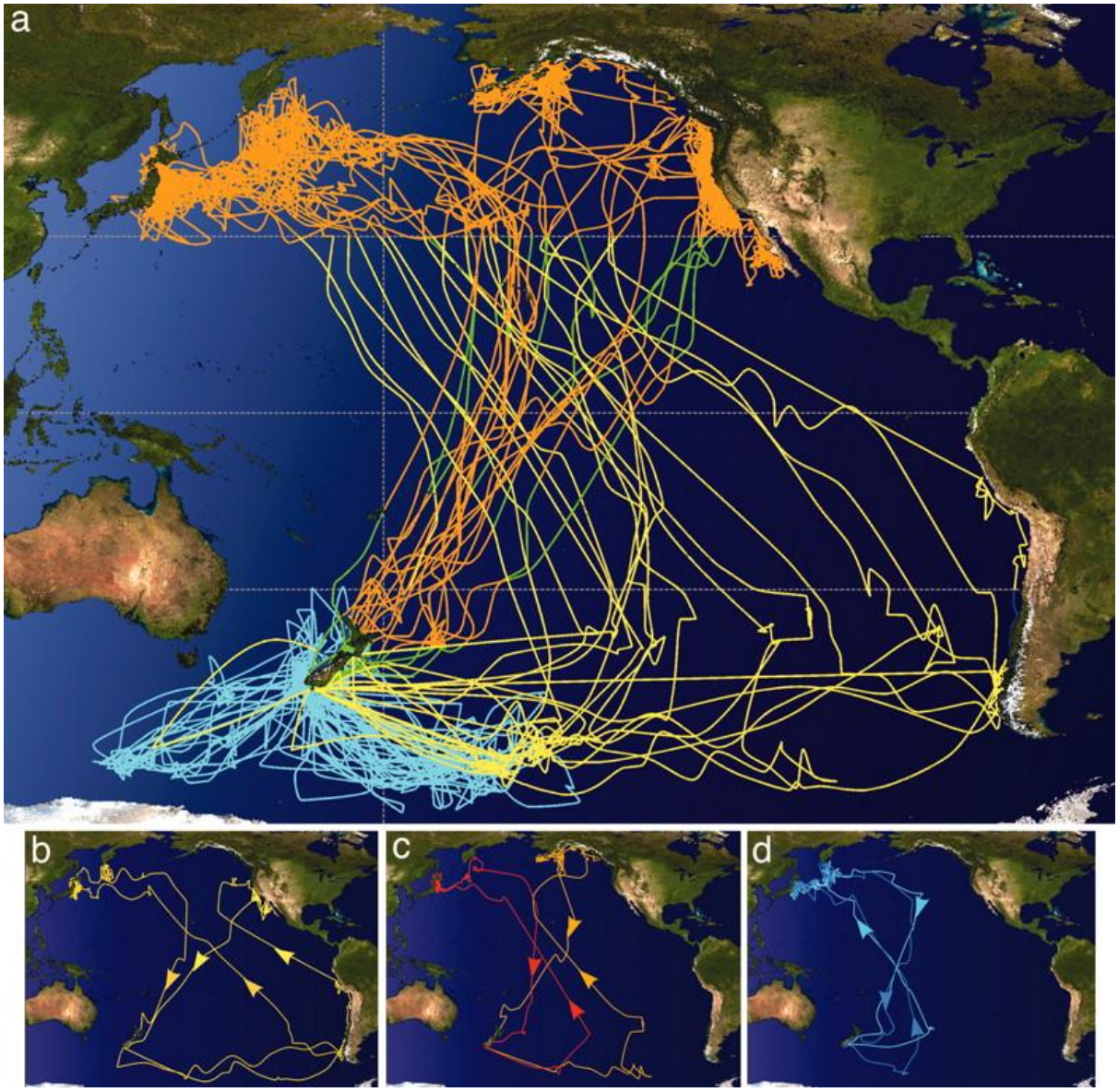


Figure 1

Shearwater migrations originating from breeding colonies in New Zealand. (*a*) Interpolated geolocation tracks of 19 sooty shearwaters during breeding (light blue) and subsequent migration pathways (yellow, start of migration and northward transit; orange, “southern wintering” grounds and southward transit). The 30° parallels, equator, and international dateline are indicted by dashed lines. (*b*–*d*) Representative figure-eight movement patterns of individual shearwaters travelling to one of three “southern winter” destinations in the North Pacific. These tracks also represent those of three breeding pairs to reveal the dispersion and extent of each pair. The image was created by using the Blue Marble data set (15). Image: Shaffer et al 2006. Copyright 2006 National Academy of Sciences, USA.

2.2 Species status

Importantly, Review 2 reported on an analysis of status and trends that was carried out for a total of 2,274 CMS-defined migratory species (23% of the world's birds).The review noted that whilst migratory birds are found in all regions of the world, the Americas and Asian regions stand out as being of particular significance with more than 1,000 species each.

At a global level, 14% (317) of the included species were reported as being currently considered threatened or near-threatened according to the IUCN Red List. Additionally, since 1988, 53 species have deteriorated in status (sufficiently to be listed in higher categories of extinction risk on the IUCN Red List) while only nine species have improved (sufficiently to be moved to a lower risk category). It could be argued, therefore, that listing of species on CMS appendices (these being species identified as deserving of specific attention) does not, appear to have resulted in any short-term improvement in overall status. Clearly, the follow up to such listing, which should be a trigger for action through the development of agreements and conservation work on the ground, needs to be pursued vigorously in future.

Review 2 reported also that there is increasing evidence of regional declines, although regional and taxonomic differences exist. Population trend data showed that more Nearctic–Neotropical migrants have declined than increased in North America since the 1980s, and more Palearctic–Afrotropical migrants breeding in Europe declined than increased during 1970–2000. The East Asia–Australasia Region, however, had the highest proportion of threatened migratory waterbirds (20%); Africa–Eurasia, Central Asia and East Asia–Australasia having the highest proportions of threatened soaring birds (c.30% each); and the Americas, Africa–Eurasia and East Asia–Australasia the highest proportions of threatened seabirds (c.30%). On a flyway scale, the East Asian–Australasian Flyway has the highest proportion of threatened migratory waterbirds (19%), and the highest proportions of threatened soaring birds (24–34%) was recorded for the Black Sea–Mediterranean, East Asia–East Africa, Central Asia and East Asian–Australasian Flyways.

In addition, an overview of regional status of the included migratory species can be gained from IUCN Red List categorisation. Some regional differences are apparent, notably with the East Asia–Australasia region having the highest proportion of *threatened* migratory birds in all categories: seabirds (31%), soaring birds (31%), waterbirds (20%) and, along with the Americas, landbirds (9%). The East Asia–Australasia region also has the highest *overall* number of species in all categories apart from waterbirds and seabirds, where the Americas have more. Africa–Eurasia also has a high number of soaring birds and seabirds and a high proportion of threatened ones, with fewer soaring birds in the Americas, and fewer seabirds in Central Asia.

Additionally, the newly published State of the World's Waterbirds 2010 (Wetlands International 2010) provides a new waterbird index that reviews the status of waterbirds at a population level and demonstrates globally that the balance between increasing and decreasing populations has improved modestly, by about 5%, between 1976 and 2005. The situation is still very serious, with over 47% of populations decreasing or extinct in 2005 compared with 53% in 1975.

It is important to note also that data on the migration of Passerine species is deficient for many Regions of the world, with the possible exceptions of North America and Europe. These Regions have effective breeding bird monitoring and have published excellent atlases based on extensive ringing/banding studies. Overall, however, the lack of information is a significant gap in knowledge that is preventing a more comprehensive assessment of the needs of these species. Existing large-scale and long-term sets of migration data derived from individual marking still require resources to be properly analysed and would undoubtedly provide a detailed picture of flyways for a large array of songbird species.

Overall these and other data reported in Review 2 indicate that a significant proportion of migratory birds are presently at high risk and have an unfavourable conservation status.

3 THE COVERAGE OF EXISTING CMS AND NON-CMS INSTRUMENTS AND FRAMEWORKS (KEY ISSUES FROM REVIEW 1).

3.1 Existing coverage

Note that the Summary Table and Annex 1 from Flyway Review 1 presented an overview of all the Existing CMS and non-CMS instruments.

3.2 Gaps in Geographical Coverage

Given the considerable effort over recent years many parts of the world are covered by one or more agreements under CMS or via other arrangements. Review 1 has effectively examined these and presented a summary of occurrence in the Annex to its final report.

In summary, Review 1 noted that geographical coverage (on paper) is **strongest** in:

• Africa – Eurasia (particularly Eurasia);

• Americas (particularly North America);

• East Asia – Australasia.

In these regions there is an established flyways-based approach to bird conservation that can be traced back over the course of 30 to 50 years.

Review 1 noted also that geographical coverage (on paper) is **weakest** in the following regions:

• Central Pacific;

• Central Asia (there is a CMS Action Plan for waterbirds that has yet to be implemented; there is also substantial species and geographical overlap with the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) and geographical overlap with the CMS Memorandum of Understanding (MoU) on Migratory Birds of Prey in Africa-Eurasia);

• Pelagic (open ocean) flyways in the Atlantic Ocean, Pacific Ocean, Indian Ocean and Southern Ocean. (Although ACAP currently caters for a certain suite of albatrosses and petrels and AEWA also covers some seabirds).

3.3. Coverage of species groups

Review 1 noted that coverage (on paper) is **strongest** for:

• Waterfowl (Anatidae);

• Shorebirds/waders (Scolopacidae);

• Other migratory waterbirds such as divers (loons), grebes, cranes, herons, rails and terns;

• Nearctic-breeding passerines and other landbirds that migrate to the Neotropics for the non-breeding season;

• Raptors (particularly in Africa-Eurasia).

And that coverage of species groups (on paper) is **weakest** for:

• Passerines (particularly in Africa-Eurasia and Asia-Pacific, though coverage is good for Nearctic-breeding migratory passerines in the Americas);

• Other landbirds (with some exceptions e.g. certain species covered through bilateral treaties in the Americas and Asia – Pacific Regions; also the CMS MoU on African-Eurasian birds of prey and CMS MoU on Middle European population of Great Bustard *Otis tarda*);

• Inter-tropical and intra-tropical migrants in all Regions;

Note “Inter-tropical and intra-tropical migrants” generally belong to different species groups (waterbirds, soaring birds, landbirds). As flyway classifications tend not to distinguish between inter- and intra-tropical migrants, there is, consequently, little data about their coverage. Some species are, however, partly covered by existing agreements. For example, AEWA covers intra-tropical migratory waterbirds, and the same is true for birds of prey. It appears that inter-tropical and intra-tropical migrant landbirds are in particular need of further study to clarify their patterns of migration and conservation needs.

3.4 Priorities to fill the gaps in coverage

Based on the above analysis some clear priorities for action are apparent. Priorities are addressed in terms of the Regions of the world in a systematic way in section five, below. At this stage, however, it is possible to highlight the following areas as in particular need of further conservation work on the ground to address declines in populations.

1 At the Regional level it is clear that S E Asia is a key area for rapid action given the number of declining species and the rapid destruction of habitats seen there. For example, whilst the waders of the EAAF do not show up as gaps from this analysis, the scale and urgency of the problem suggests that consideration should be given to additional measures for this flyway.

2 There is an urgent need for dedicated measures to focus attention on the declines in the African-Eurasian long-distance sub-Saharan landbird migrants.

3 It is important to clarify the best approach for CMS to adopt in assisting conservation action in the Central Asian Flyway. This should, for example, cover landbirds such as Floricans as well as waterbirds.

4 It is important to consolidate the approach to be used in south and central America, and especially to explore whether a “whole of the Americas “ approach can be developed to migratory birds by clarifying the views of the countries involved.

5 It is important to clarify the conservation need and biogeographical approach to be used in the Pacific Region. This large area of ocean and islands tends at present to fall between the work in SE Asia and the work in the Americas.

6 As regards seabirds, there is a clear case for further action to assist their conservation in addition to the good work currently undertaken by ACAP and AEWA.

7 Landbirds (incl. Passerines) are a less covered group (at least in the Palaearctic) and consideration should be given to their conservation. Among them, grassland

birds are especially threatened, facing long-term decrease. In relation to these species it is worth considering whether a habitat or even landscape-oriented instrument could be developed.

4 THE KEY PRESSURES IMPACTING ON MIGRATORY BIRDS.

Key Pressures.

Review 2 reported on an analysis of the main threats to migratory species, evaluated as threatened and near-threatened on the 2010 IUCN Red List, and highlighted that important threats include land-use change, illegal hunting and taking, non-native species, diseases, pollution, climate change, natural system modifications, infrastructure development, human disturbance, fishing, energy production and distribution.

The Review stressed that some specific threats highlighted are of particular significance for migratory birds including: wind turbine developments; power line collisions and electrocutions; illegal trapping and shooting; reclamation of wetlands; and pollution, overfishing and the by-catch of seabirds during long-line and trawl fishing operations. These threats are identifiable and will need continued effort to address specific impacts on particular species.

The Review stressed also the continuing need for robust information on the status, trends, distribution and ecology of key species, and for further systematic collection of information on the wide variety of threats to migratory birds.

These various pressures may act separately, or increasingly cumulatively, at any or all stages of the migration cycle. They have the potential to limit the numbers of particular species and to lead to alteration of migration routes or to the timing of the migration activity itself.

The Convention and its daughter agreements have a long history of addressing these issues through active work on the ground and through the development of recommendations and resolutions at the Conference of the Parties, leading to new agreements designed to provide guidance to governments and others about the priorities for action. Based on the earlier Reviews in this series it is important that the following key issues are addressed in any new agreement and addressed at future CoPs in relation to the wider flyways work of the Convention.

4.1 Habitat loss, fragmentation and reduction in quality.

Habitat loss, fragmentation and reduction in quality is a major and increasing problem for migratory birds in many Regions of the world, and in the view of the Flyways Working Group is the most urgent and immediate threat to be tackled. In many cases these detrimental changes are the result of multiple pressures acting on the environment, including human population growth and related developments, including urbanisation, agriculture, biofuel crop production, mining industries, as well as alterations induced by contamination and pollution as well as by climate change. The resultant changes, leading to the reduced availability of suitable habitats for many species are now a major problem, threatening the status, numbers and distribution of species, compared to even a few decades ago. Importantly, the rapid rate of change may be one of the key factors impacting on species, with the speed of habitat destruction leaving little time for migratory species to adapt to the new situation.

Flyways Review 2 highlighted the situation in relation to the fragmentation of habitats as:

".....landscape-scale conservation is key to the protection of migratory birds. To facilitate migratory movements, it is vital to find ways to improve the connectivity of habitats critical to population survival currently and in the future"

Recent work by a variety of non government organisations to identify key areas for migratory birds has been particularly important in this regard. This has included the work from BirdLife International, identifying "Important Bird Areas, and by Wetlands International and BirdLife International in relation to the "Critical Sites Network" under the Wings over Wetlands project; as well as the development of the Flyway Site

Network by the Partnership for the East Australasian Flyway . In addition, a Convention on Biological Diversity Programme of Work is seeking to develop a network of protected areas with targets for sites on land, inland and coastal waters, and in the oceans.

These initiatives are helping Governments to focus their conservation and management efforts in these key areas, and can play an important role in future conservation efforts. It is important in this context to recognise the key role that habitats that may only be used infrequently by species, can have in their overall survival. Use of particular areas in periods of poor weather, for example, may occur only periodically but can make an important contribution to the overall survival of species during migration. Even small areas of suitable habitat such as oasis and islands spread across ecological barriers such as deserts or large areas of open ocean often play a key role as refuges, and their conservation is key for the survival of huge numbers of migrants. Taking a holistic view of habitat requirements is therefore important in assessing the required nature and extent of any site network.

For many more dispersed migrant birds such as species that migrate on a broad front or are non-congregatory for at least part of their annual cycle, for example, Sub-Saharan migrant passerines, conservation of habitats only in key sites is not enough. Declines in such species may be due to loss or deterioration of farmed, grazed and forested habitats. Effective habitat management across the wider landscape is therefore an essential part of their future conservation. Tackling the loss of habitats is a common theme for several international Conventions and organisations. Work under the auspices of the Convention on Biological Diversity is seeking to develop a network of protected areas with targets for sites on land, inland and coastal waters, and in the oceans. Developing strong links to this programme of work would clearly be beneficial. There is also an urgent need to develop work that influences land use policies for habitat beyond key sites to address the needs of dispersed species.

Action: Habitat loss. CMS has the potential to develop a key role in the conservation of habitats for migratory birds by ensuring that their habitat requirements are integrated into land use policies through Governments, other Multilateral Environmental Agreements (MEAs), UN institutions and Non Governmental

Organisations. Some of this can be achieved through the designation and appropriate management of protected areas but large proportions of migrants use habitats beyond these sites and conservation of these wider areas is also urgently needed. To achieve this, synergies need to be developed through scaled up collaborations, to address the drivers of change, with the Convention of Biological Biodiversity and other UN institutions, especially with the Food and Agriculture Organisation (FAO). As regards the latter, topics where collaboration would be merited could be further defined in a CMS/FAO Memorandum of Cooperation, further to CMS Resolution 9.6. In addition, it is important for Parties to identify areas that are critical for migratory species and that they report on the status of these areas as part of their normal reporting cycle to CMS.

One example where this approach may be applicable is in the Sahel zone; for example to counter the loss of indigenous forests with non-indigenous tree plantations which appears to be one factor implicated in the population declines being experienced by African-Eurasian migrant landbirds. The progressive extension of the barrier created by desert areas, due to the removal of vegetation, poses an increasing threat for many species of land bird migrant. Indeed, some may eventually be unable, in terms of energetic needs, to cover the increasing distances between suitable areas on traditional migration routes.

Given the considerable activity from other bodies in relation to the conservation of habitats it is important to link with these initiatives. Working with CBD, in achieving its strategic plan aimed at mainstreaming biodiversity in decision-making, minimising loss of natural habitats and ensuring sustainable management of agriculture, aquaculture and forestry will be critical in this respect. It will also be important also for CMS to engage with the Convention to Combat Desertification in order to identify synergies and areas for priority action.

4.2 Climate Change.

Considerable uncertainties remain about the exact rate of change that can be expected, or the particular impacts that any one country might experience, as a consequence of climate change, however, the impact on the status and behaviour of migratory bird species is progressively becoming apparent. The Convention has,

over recent years addressed the issue via a number of Resolutions and has created a “Climate Change and Migratory Species” Working Group.

There are several ways that climate change has already impacted on migratory bird species including changing the timing of migration, altering the availability of key food supplies, changing the distribution and “quality” of habitats along migration routes and potentially altering the routes of migration per se. For example, as desertification continues in several parts of the world, species migrating across these areas will need to adapt to the changing conditions posed by the progressive widening of these ecological barriers.

Major threats from climate change are likely to be exacerbated by large scale changes in agricultural practices, land use patterns, decreasing availability of wetland and water resources; impacting on the overall capacity of agro-ecological systems to accommodate both human needs and the ecological requirements of migratory birds.

The Flyways Working Group has suggested that it remains important for the Convention to continue to address climate change issues working together with other designated UN Agencies (particularly FAO), International Conventions and NGOs. It is important also to ensure that effective consideration of the impacts of climate change, many of which are still relatively unknown and may include unexpected events, is included in the work of the agreements, and that any new agreement addresses the issue. In helping to tackle the effects of Climate Change CMS will necessarily need to seek new partnerships with other International Conventions to consider how to assist species to adapt to climate change. For example, this would be useful in the identification of a network of critical sites along the world’s flyways building on the example of the East Asian – Australasian Flyway Site Network or Western Hemisphere Shorebird Site Network and the Critical Site Network Tool for the AEWA region. One recent piece of evaluation work by BirdLife International has revealed that such a network will remain vital to allow species to adapt to climate change. In addition, it is important to consider the implications for such areas in light of projected changes in agricultural practices and in relation to the combined effects of human population growth and climate change.

Action. The Flyways Working Group is keen that CMS continues to take action to limit the impact of climate change on migratory bird species. The group notes

especially in the context of rapid climate change that it is important to continue to monitor the status of migratory birds and their habitats; and to record any changes in their ecology in some detail. It is suggested also that guidance is provided on the use of indicators to document the effect of climate change on migratory birds. It is important that effective consideration of the impacts of climate change is included in the work of the agreements, and that any new agreement addresses the issue. In helping to tackle the effects of Climate Change CMS will necessarily need to seek new partnerships with other International Conventions and to consider how to assist species to adapt to climate change, for example through securing critical site networks.

A key part of the global response to climate change and the increase in carbon emissions has been the rapid expansion of new energy sources, especially renewable energy developments. Migratory birds, especially waterbirds and soaring birds, are proving to be particularly vulnerable to direct mortality through collisions with wind turbines and power lines as well as to electrocution from power lines.

CMS has a leading role to play at an international policy level, for example by further developing and providing guidelines and examples of best practice to avoid and mitigate the impact of energy related infrastructure (for example, wind energy turbines and new power transmission lines), and through working with industry associations and regional economic groupings.

Action: The Flyways Working Group considers it important for the Convention to continue to work to minimise direct mortality to migratory birds from power lines and wind energy developments, especially as it is uniquely placed to do this

4.3 Bycatch

Bycatch remains an issue of key importance in many Regions of the world and is a major threat to many species, especially in the marine environment. This is especially concerning as many of the species affected have a naturally very low level of productivity and recruitment into their populations. The full effects of such impact on the populations could therefore take some considerable time to become obvious

as the lack of recruitment into the breeding population becomes apparent over the years. Their populations may also take a considerable time to recover from any impact from bycatch which has the potential to kill large numbers of birds over relatively short timescales. It is important that any new agreement covering such species in the marine environment should include measures to tackle bycatch as a priority.

ACAP has lead the way in tackling this issue over recent years and it is important that the expert advice of the ACAP Seabird Bycatch Working Group (which contains best-practice recommendations applicable to most longline and trawl fisheries worldwide) is applied throughout the coastal and high seas areas where seabirds are under threat.

In addition, it is important to highlight the threat from gill-nets; the main fishing gear not currently addressed by ACAP (or any other body). These are recognised to pose very substantial threats to waterbirds in coastal, as well as inland waters in many areas. This is exacerbated by their prevalence in artisanal fisheries and the likely increase in their use worldwide, due to their increased availability, and to socio-economic pressures. CMS is currently undertaking a review on the impact of gill-nets on marine species that should be available by COP 10 in November 2011.

Whilst work on bycatch tends to focus in the marine environment this seems to be an issue that has not been fully appreciated in some other instances in different habitats. For example, the Tufted Duck *Aythya fuligula* that spends the northern winter in Naujan Lake in the Philippines is a bycatch in the lake's tilapia fishery. The diving ducks prefer the parts of the lake where fishing takes place to catch large tilapia, getting entangled in the fishing nets.

Other examples of substantial mortality in diving waterbirds due to entangling in the gill-nets have been reported to the Flyways Working Group and include reports from coastal Ukraine (167.000 individuals annually, mainly diving ducks, grebes and cormorants), inland wetlands in China, Russian Federation and many other countries

in Asia. Whilst these reports are unsubstantiated at this time, the full scale and impact of these activities in Eurasia and Africa needs to be urgently assessed.

Action: The issue of bycatch is regarded by the Flyways Working Group as one of the key threats to migratory birds and is seen as a priority for action by the convention. It is currently being addressed by ACAP's working group on seabird bycatch and by the Scientific Council working group on bycatch. In addition, the recommendations of the ACAP Seabird Bycatch Working Group need to be put into practice and similar guidance needs to be put in place regarding gill-nets. Consideration should be given to seeking tighter coordination between CMS and other international instruments to encourage Regional Fishery Management Organisations to implement these recommendations.

4.4 Unsustainable use.

Many populations of migratory species are used by the human population in a great variety of ways around the world. This ranges from consumptive to non-consumptive use. This has, historically been an area of considerable activity for the conservation movement at large and many large NGOs and other bodies are involved in dealing with the issue. The key step for CMS at present is to highlight key threats and to identify its particular contribution to these sometimes wide –ranging and complex debates. That said, the following issues are suggested as deserving CMS attention at the present time.

4.4.1 Livelihoods

Migratory birds provide a valuable livelihood for many populations around the world. In many cases traditional harvesting has served to bring the human population into a close and durable relationship with the populations of wild birds. The nature and level of harvesting is, however, the key factor in determining the sustainability of such situations and this in turn may relate to the size of the human population concerned. What was a sustainable activity twenty years ago may no longer be so, given an increase in the level of harvesting or a decline in the bird species populations concerned. For example, capture for food may force species such as Spoon-billed Sandpiper *Eurynorhynchus pygmeus* to extinction within just a few years. Excessive

harvesting of species in Sub-Saharan African wetlands, including the use of (illegal) poisons to do so, is another area which needs particular attention.

Importantly, many relatively sustainable traditional harvesting activities have become increasingly commercial with major markets developing in many urban centres following the on-going movement of people from rural areas to cities. This is complicated by population growth, increase of prices for food, availability of trapping equipment (e.g. mist-nets) and better access to remote areas.

Action: Emphasis should be given to the Addis Ababa Principles and guidelines for the Sustainable Use of Biodiversity in order to guide the sustainable use of migratory birds. Greater use of the Guideline for sustainable use and the Charter on Hunting and Biodiversity of the Council of Europe would also be useful. In addition, socioeconomic studies should be undertaken to find alternative livelihoods for people that harvest migratory birds for subsistence.

4.4.2 Capture for trade, both formal and informal, as well as legal and illegal

Capture as part of the trade in live wild birds as pets is still practiced widely in many parts of the world and often involves rare and endangered species. Whilst this may contribute to the economy of some areas, there is little evidence that this activity can actually be practiced in a sustainable way. The commercial value of some species drives illegal capture and trade, which can have significant conservation impacts. Globalisation of trade strongly enhances the illegal international trade in live wild birds. Importantly, there is a need for systematic and objective monitoring of the populations concerned to either prove or disprove the sustainable nature of such trade. This is particularly important at the present time in relation to the “take” of migratory birds of prey from the wild, where differing interpretations are possible concerning the implications of the number of birds taken, and the sustainability of the practices. There are relatively few species that are well enough monitored or where the total population size is known with sufficient degree of confidence to be able to prove or disprove whether harvest levels are sustainable. A precautionary approach should be applied. Where unsustainable levels of take are suspected, necessary conservation action should not be curtailed by lack of detailed information about the species in question.

Action: It would be timely to review, by flyway, the significance of legal and illegal trade to the conservation of species; considering the drivers, threats and opportunities related to such trade in each case. Cooperation with CITES and TRAFFIC would be necessary to undertake such a review. Note also that the issues related to wild bird harvesting and trade also have important implications for the global dynamics of poultry diseases and therefore should be addressed jointly with FAO and OIE, as well as with national veterinary authorities.

4.4.3 Recreational hunting.

Recreational hunting can be organised through technically sound adaptive management approaches. It can be sustainable in terms of the demography of harvested populations and positive for species conservation, e.g. via habitat management. However, the harvest of migratory birds from hunting in large parts of the world is still far from being properly managed. There is an important need for flyway-based hunting statistics and harvesting plans, which should be based on the annual productivity of quarry populations. Introducing such a system would progressively allow the sustainable management of the hunting activity.

It should be recognised, that most recreational hunting is largely regulated at a national level and there is, therefore, a need to explore the development of appropriate mechanisms along each flyway that take into account the shared responsibility for migratory birds.

There are many countries where hunting legislation and or enforcement is weak, some of which lie along important flyway routes. In these cases there is a need to work with the international hunting community to promote better organisation and governance of hunting as suggested above, with a particular emphasis on embedding conservation into the national systems of hunting.

There are, of course some excellent examples of the conservation and hunting communities working together on research and on practical action to benefit migratory species. It is important, therefore, when problems of potentially unsustainable use arise, that these are investigated jointly between the hunting and conservation communities and corrective action taken. Such a situation may be

arising in some parts of the Middle East and in East Asia at present, and require further action as part of any new instrument in the area.

4.4.4 Poaching/Illegal killing

Poaching/illegal killing can have a significant impact on the conservation of migratory birds, but in tackling the issue there is a need to understand the drivers that give rise to this activity. Whilst legal protection for species is clearly needed, it is important also to involve local communities in order to engender a joint sense of responsibility, as has been shown in the case of bushmeat. There is significant scope to work with legitimate hunters to reduce poaching pressure, particularly when they are local stakeholders. More attention should be given to understanding the issues related to poaching, and to highlight best practice in reducing and eliminating it.

4.4.5 Tourism.

Public interest in migratory birds has probably never been greater. This interest is a major factor in promoting the conservation of migratory species and is generally seen as a “good thing”. Similarly, the growth in eco-tourism, including experiencing wild places and viewing migratory birds, has proved to be beneficial to the overall conservation value of many species, adding considerably to economies around the world. This growing public interest has to be managed carefully, however, and in many cases best practice guidelines have been developed. Looking ahead, it will be important for such guidelines to be adhered to, and for the local human populations involved in the management of the areas, habitats and species involved to benefit directly from such tourism activity.

Hunting tourism can have real conservation value, particularly by securing areas for wildlife as opposed to other land uses. It is also the case, however, that areas of great importance for migratory birds, but with weaker laws or enforcement are continuing to be exploited for tourism hunting, which can have conservation impacts. It is therefore important to promote the development of good standards for hunting tourism operators, particularly in relation to the hunting of migratory birds, working through relevant organisations and stakeholders.

4 .5 Lead shot and other forms of poisoning.

In addition to the well-known problem of lead shot, there is increasing evidence of the serious threats posed by other kinds of poisoning of migratory birds, both inadvertent (e.g., of raptors scavenging carcasses poisoned to kill livestock predators) and deliberate (e.g., of waterbirds killed through the use of crop pesticides such as carbofuran in some parts of Africa).

The Flyways Working Group recognises the importance of eliminating the use of lead shot and lead sinkers, particularly, but not exclusively, in wetlands and water bodies, and of reducing the impact of existing lead in the environment. Considerable progress has been made in many countries over recent years by conservation organisations and governments, working alongside the shooting community, to introduce necessary legislation, to find practical alternatives and to promote compliance. This work needs to continue as part of a wider initiative to ensure that the use of lead is phased out worldwide.

For other poisons, work is needed to assess the scale of the problem and underlying causes, and to develop internationally co-ordinated action plans. CMS may also have a role to play in working with regulators, manufacturers and distributors to improve safeguards on the use of specific poisons.

Action: The Flyways Working Group recognises the importance of CMS tackling the range of issues involved in the unsustainable use of migratory bird species. This can be done via a range of measures at the forthcoming Conference of the Parties including Resolutions designed to stimulate corrective action and by working to implement these with a range of partner organisations, for example by the sharing of good practice

4.6 Invasive Alien Species

Invasive Alien species are found in habitats around the world. They have been a major cause of extinctions of those native species living on islands in particular. The implications for many migratory species in other contexts is only now becoming clear, thanks to detailed studies. Research has shown the potential for hybridisation between native and non-native species; enhanced competition for resources and predation from introduced species, e.g. introduced alien mammals feeding on native seabird species. Importantly, alien species have also been implicated as a major vector for the transmission of disease and parasites. In many cases alien species

can also cause severe indirect impacts, e.g. through an alien species competing with prey species. Indeed often the impacts of alien species are felt throughout the ecosystem, threatening important habitats as well as the migratory species directly.

It should be noted, however, that recent work has demonstrated that alien species can be controlled and in some cases eradicated, For example, The case of ruddy duck control in Europe is a good example on how CMS Parties and NGO's can work together towards the eradication of a non native species.

A consistent approach to legislation and action related to invasive alien species is required internationally. For example, the failure of any one country to take coordinated action on invasive alien species can put at risk the wider coordination of effort. Domestic arrangements vary enormously between Parties and, there is presently little or no harmonisation or consistency among neighboring countries.

Perhaps of greatest priority is the urgent development and implementation of best-practice plans to control and eradicate alien species where these are the main threat to globally threatened migratory species (and particularly at the top 100 or so already-identified island sites). This should be coupled with the development of comprehensive plans, involving appropriate stakeholders, for risk assessment, control, eradication and translocation (as appropriate) in respect of species, sites and areas (especially archipelagos) where threats are currently a lower priority or uncertain. The precautionary approach should apply.

There is a need for greatly enhanced biosecurity (i.e. prevention) systems, including legislation, which are implemented effectively. Action also needs to include monitoring, rapid response systems and awareness-raising.

Action: Dealing with alien species is an issue that the Flyways Working Group considers a priority for future action by CMS. CMS action needs to be coordinated with major international initiatives on this issue with other fora, such as the CBD, Bern Convention and the EU, to ensure added value for migratory species.

4.7 Agricultural conflicts and pest control

Agricultural environments are vitally important for many migratory birds. In many parts of the world, however, particularly in the developing countries of Africa and Asia, significant losses of migratory birds occur as a result of conflicts between farmers and birds, where the birds are causing damage to fish or shrimp stocks in aquaculture, or to agricultural crops. A wide range of issues have arisen related to the acceptability and sustainability of most pest control strategies currently in use (ranging from primitive direct persecution to application of traps and poisons). It is important that these issues are addressed effectively to develop solutions that limit the killing of migratory birds, and that can still allow the effective management of agricultural areas.

Action: CMS, FAO and international NGO's should continue to work together to develop appropriate practical solutions and to advocate relevant policy solutions in order to resolve these conflicts.

4.8 Disease

A wide range of diseases have the potential to impact directly on the populations of migratory bird species. In addition, and importantly, disease outbreaks such as highly pathogenic avian influenza in wild bird populations have the potential to cause considerable concern to the general public, sometimes facilitated by misleading or alarmist media coverage. The potential for zoonotic disease outbreaks to have a significantly negative impact on the public perception of migratory birds is therefore of considerable concern, as is the direct impacts on the species concerned. It is becoming apparent that the disease risk may be exacerbated by the degradation of habitats, introducing a source of stress into the wider functioning of ecosystems.

The Convention played a leading role, along with FAO, in the development and operation of the Task Force on Avian Influenza and Wild Birds. This demonstrated the value that CMS can add to such high profile initiatives, where it has usefully tackled both scientific issues and the wider dissemination of knowledge and information to governments and more widely.

In 2008, COP 9 asked CMS and FAO to co-convene a Scientific Task Force on Wildlife Disease to develop guidance on responding to wildlife diseases of

importance to people, domestic animals and wildlife, following the “One World One Health” approach.

Issue of diseases as a threat to wild bird populations may potentially become more important with the worldwide increase of poultry production, both in commercial and backyard sectors acting as “incubators” for new, emerging pathogens. The effects of pathogens that are non-native being introduced to wild bird populations is difficult to evaluate with certainty, but they have the potential to pose a significant threat to already vulnerable migratory bird populations.

Action: The Flyways Working group considers it important for the Convention to continue to work on issues related to disease and to ensure that relevant measures are included in agreements to address these issues. Note that many countries are likely to remain interested in disease related issues due to their generally high profile.

4.9 Information gaps

Conservation efforts are currently hampered by poor knowledge of population size and trend of many migratory species and the only way to improve this situation is through monitoring. There is also a clear need to be aware of any changes to key sites and the populations they hold, in order to be able to take swift action if these sites deteriorate, and indeed to track whether any conservation action at such sites is successful. The expected effects of climate change make long-term monitoring (to detect impacts and, where possible, act on them) even more important.

Examples of information gaps include the status of migratory landbirds (birds of forests and agriculture/grasslands) in Asia, which are believed to be in decline but urgently need monitoring data to document them.

Existing internationally-coordinated monitoring schemes, such as the International Waterbird Census and the Pan-European Common Bird Monitoring Scheme, do invaluable work, covering some migrant species in some parts of the world. They rely largely on volunteer contributions, and invariably struggle with very limited resources for co-ordination and capacity-development, as well as for facilitating data collection, analysis and reporting.

Action In partnership with others, CMS should encourage and promote the continuation and further development and improved coverage of internationally co-ordinated, national long-term monitoring schemes for migrant bird populations and key sites. A coherent, costed, long-term plan is needed for the creation of an effective and sustainably funded, migratory bird monitoring programme.

5 PRIORITIES FOR THE DEVELOPMENT OF CMS INSTRUMENTS

5.1 The role of CMS

It is important in considering the priorities for CMS to recognise where CMS sits in terms of wider conservation action, and to review what options there are for the maintenance of existing agreements, and for the development of new ones.

The involvement and active support of Parties is fundamentally important to the work of the Convention. If any new instruments are to be developed then, as with earlier initiatives, the sponsorship of the development work by at least one of the Parties is important. Similarly, the active support by Non-Government Organisations can be very significant in terms of the supply of data and information, personnel and expertise, as well as in generating wider political support for the initiative.

Whilst the wider conservation “landscape” has numerous types of agreements between countries; countries and non-government organisations or between international bodies, it is important to note that CMS was created to assist the conservation of migratory species and that it has established itself over the years in terms of initiating and managing large, and at times complex inter-governmental agreements. Clearly, this is a key role that the international community now expects CMS to fulfil. Indeed, it is not easy to see any other way that such conservation focused agreements could be initiated and managed effectively.

In addition to developing new agreements on the conservation of species, CMS could aim to play a leading role in relation to guidance on key issues impacting migratory birds, and seek to mainstream these with others, such as the private

sector. It is important in this review to note the importance of conservation initiatives being effectively resourced. For example, CMS has played a leading role in this area over a number of years and has developed several MoUs which have resulted in real progress in the conservation of species. The main problem in terms of maintaining effort in many cases, however, appears to be the lack of resources to coordinate and implement these initiatives. Some of them are doing well because they have been benefitting from project money (Siberian Crane through GEF), Aquatic Warbler (EU LIFE Regulation) or from generous voluntary contributions e.g. the Raptor MoU, however, some of these resources have already dried up and the situation could well deteriorate given the global economic situation at present. This situation has important implications for any new initiative that must be funded effectively from the outset.

5.2 Geographical Priorities

Review 1 in this process has considered the current situation in relation to the number and type of agreements for each Region of the world. The following section outlines the suggested priorities for action based on this review and from the perspective of CMS activity in each Region.

Note that it is important in developing this work over the coming months to link closely to the options being developed by the "Future Shape" Group of CMS.

5.2.1 Central and South America

There has been some considerable activity in recent times, especially across South America, in developing agreements. Consequently, there are a number of MoUs in operation at present. These cover Ruddy headed goose, *Chloephanga rubidiceps* Andean flamingo *Phoenicopterus andinus* and Grassland birds. In addition, a number of intra-regional migrant species could benefit from the development of new agreements to focus effort on their conservation needs.

Flyways conservation in North of America is very well organised and has historically led the way in terms of population management and in developing linkages between staging areas on flyways. The potential to develop stronger linkages from the flyway work in North America to migratory species in South America could be explored further to achieve a new overarching conservation plan covering the whole range of

species in both regions. It is notable that there are no really significant CMS activities in Central America. This is a significant gap in terms of developing a holistic approach to conservation management in this Region.

Action: The Flyways Working Group suggests that CMS should investigate the feasibility of developing an overarching conservation plan covering all the Americas; recognising especially the established programme of work in the North. This should initially take the form of a workshop to consider the specific needs and possible mechanisms with all the Parties and other interested countries and organisation in the Region.

Action: Given the specific need in relation to Neo-tropical intra-Regional migrants, CMS should review with the Parties in Central and South America, the potential for an agreement covering intra-Regional migrants in the Neo-tropics.

5.2.2 South east and East Asia;

There is an urgent need for CMS to clarify what new approaches and agreements are needed in this Region and, working with Parties, to take action to help ensure the conservation of threatened species. The Region holds key biodiversity interest, with major areas of habitat supporting numerous migratory bird species. There are, however, significant pressures operating on many sites, leading to a relatively rapid reduction in biodiversity of these areas. For example, there are major development pressures especially along many coastal areas and on many terrestrial ecosystems including areas of forest, scrub forest and grasslands in particular.

There have been several recent initiatives, especially the East Asian – Australasian Flyway Partnership, related to the conservation of waterbirds that have helped to focus attention on the wider conservation issues in this Region. It is important for CMS to be clear about its relationship to this non-binding agreement and to develop a forward timetable for action, ideally in partnership with it. This is particularly important given the perilous state of some species populations. Annex 2 provides a list of threatened waterbirds in the Region; illustrating the point that there are many species in need of urgent action.

Action: The Flyways Working Group suggests that as with other Regions, the development of an overarching framework agreement would be an important step in

the coordination of conservation action. Other specific action plans could be used to address particular conservation issues in the Region.

Action: The Flyways Working Group suggests that CMS should clarify its relationship with existing agreements and prioritise effort in relation to species using coastal and other threatened habitats such as forest areas in the Region. This is likely to require a Regional workshop with the Parties to explore the options and possible initiatives, to build relationships across the Region and to help ensure that some of the key countries and regional organisations, such as the Association of South East Asian Nations (ASEAN**)** are involved in this work from the outset.

5.2.3 The Pacific Region

The Pacific Region has historically been rather overlooked in terms of developing agreements to assist in the conservation of migratory birds. As part of the development of a series of overarching agreements at the global level, it will be necessary to clarify how best to include the requirements of this Region. In theory there are options for a stand-alone approach for the Region or to associate with one of the abutting Regions where framework agreements may be developed in due course.

Action: In a similar way to other Regions, an initial workshop to scope out the options; identify possible blockages to progress, and to map out a way ahead would be an important first step in defining the needs for conservation here.

5.2.4 Central Asia

There is an urgent need to address the key conservation requirements of this Region. Historically, the Region has been home to one of the earliest single species MoU; for the Siberian Crane *Grus leucogeranus*, however, it has rather tended to fall between the initiatives covering Europe and the Middle-East, and those of East Asia - Australasia. For example, it has long been recognised that there is a need to develop an agreement relating to waterbirds in the Region, building on the CMS Action Plan of 2006, yet this has still to finally come to fruition. Similarly, the work to develop the MoU relating to Raptors revealed the intricacies of determining the geographic scope of agreements abutting this Region. There remains a clear need for action to help join up the efforts of governments along the flyways within the

Region. This work could take several forms but it is important at the outset to clarify the relationship with existing agreements drawn up primarily for implementation in Europe, the Middle East and Africa, namely AEWA and the MoU on Raptors. There is scope to integrate effort here, but alongside this is the need to retain a degree of autonomy regarding the implementation "on the ground" of any combined agreement within the Region. The model suggested in Section six below seems applicable here with an overarching agreement and specific action plans, possibly with discrete funding, to assist in retaining a clear focus on implementation in the Region.

Action: The Flyways Working Group suggests that CMS evaluate, with the Parties in the Region, the potential to develop a new framework agreement for the Region or to align with existing agreements, namely AEWA and the Raptor MoU and single species action plans. The Parties should consider carefully the potential to initiate new agreements to address the key conservation priorities, while seeking to build synergies with existing agreements. This is likely to require a Regional level workshop to explore relevant issues.

5.2.5 Europe and Africa

There are several agreements presently active in the Region. The largest of these, involving 63 Parties is the African, Eurasian Waterbird Agreement, and the second largest being the relatively new MoU on the Conservation of Raptors having 29 Parties. There is a number of other single species MoUs related to the Aquatic warbler, *Acrocephalus paludicola,* the Great Bustard *Otis tarda* and to the Slender-Billed Curlew *Numenius tenuirostris*. These agreements have, over recent years made a significant contribution to the conservation of the species involved. Note also that the 16th meeting of the CMS Scientific Council proposed the creation of an MoU covering grassland passerines (especially larks and pipits), in Southern and Eastern Europe.

One key priority in relation to the existing agreements is for the MoU on the conservation of Raptors to be fully implemented. The initial sponsorship of the development of the MoU by the governments of the United Kingdom and the United Arab Emirates has been fundamentally important in focussing attention on the conservation needs of these species. In addition, the considerable support from the government of the United Arab Emirates in hosting the Secretariat of the MoU has

been instrumental to the progress so far. The imperative now must be to organise the first MoP and to raise the profile of the work needed to fully implement the agreement.

As mentioned above, AEWA is the largest and most established Agreement in the CMS family, hence its continued implementation, delivery on the ground and future funding is of key importance to the Convention overall. Maintaining momentum of this work is, therefore a priority.

In addition, due to the severe declines in populations of many Sub-Saharan migrant landbirds, consideration needs to be given to the development of an action plan or other measure to address their needs. Finally, note that there are two issues that require further investigation and clarification to provide the context for any future agreements in the Region, namely to clarify the nature and extent of East-West migration, and to clarify the conservation needs of intra-African migratory bird species.

Action: The Flyways Working Group stresses that maintaining the work of AEWA and developing the work on the Raptor MoU should be seen as a priority, whilst ensuring the continued activity of the single species MoUs in the Region. Maintaining this level of activity is important whilst developing an overarching approach similar to agreements in the other Regions of the world. In addition, it has been suggested that the development of new MoUs for single species be limited in future to allow a greater focus on these two wider agreements.

Action: Following the approach suggested for other Regions of the world, CMS should consider the co-ordination of the existing agreements here to form a wider framework, under which the existing MoUs could sit.

5.2.6 Marine

The development of the Agreement on the Conservation of Albatross and Petrels (ACAP) was a key step in broadening the scope and activities of the Convention. Tackling the issue of bycatch and developing an Agreement that encompassed large parts of the world's oceans was a major achievement. This was made possible only due to the active support and resources provided by the governments of Australia and South Africa, along with the assistance of others. The Agreement has been

extremely effective, by working with partner NGOs and other bodies to highlight the plight of these threatened species. As with AEWA its continued implementation and delivery should be seen as a priority for the Convention. From the analysis presented in the earlier Reviews in this series, consideration now needs to be given to the conservation needs of those migratory marine bird species including shearwaters of the genera *Calonectris* and *Puffinus;* petrels of the genera *Pterodroma, Bulweria and Pseudobulweria* as well as frigate birds, terns, boobies and skuas, not already covered in ACAP or by AEWA. In addition, the conservation needs of gulls and of penguins need to be considered also.

In developing action for marine species the obvious step would be to build on the work of ACAP to cover the remaining priority species rather than develop another new agreement, with all the complexities of initiation that would bring. There are also real opportunities to develop a closer synergy with FAO and others, e.g. Regional Seas Conventions, on marine issues. In order for this approach to be fully effective it would be important also for other countries such as the USA to ratify the Agreement and for there to be more interaction with fisheries management organisations which have a key role in its implementation.

In addition, ACAP's progress on issues away from breeding sites is very seriously limited by the absence of the main fishing range states (except Spain) and, for breeding range state Parties, by the lack of representation by the authorities responsible for fisheries management. Clearly, getting these range states and organisations to be part of discussions would be an important step.

Action: The Flyways Working Group urges action by CMS to help in developing a coherent conservation framework for marine bird species not presently covered by ACAP or by AEWA. The Group suggests that this could perhaps be achieved by expanding the remit and work of ACAP, rather than initiating any new agreement, and suggest that this option needs to be discussed initially by ACAP, so that the Parties to that Agreement can form a clear view on how to proceed. The discussion and agreement to such a development from ACAP is essential. It is important in taking this work forwards that it is coordinated effectively between ACAP and AEWA

5.3 Species Priorities

Review 2 considered the issue of species coverage in detail and highlighted that;

"*with 14% of migratory bird species considered globally threatened or near-threatened, nearly 40% declining overall, and extinction risk increasing (including for those species specifically listed on CMS appendices and related agreements), continuing effective implementation of existing conservation efforts under CMS auspices remains an urgent priority*".

This is an important finding and is an important steer in relation to future priorities for action.

In relation to reviewing CMS species selection Review 2 went on to state that with nearly 800 migratory bird species (35% of the total considered in Review 2) explicitly covered by different elements of the Convention, there is already considerable taxonomic coverage. The Review did, however, suggest that additional consideration should be given to selected species with the highest extinction risk not currently listed on the Appendices or CMS instruments. The Review noted also that specific consideration should be given to declining species or groups of species that would complement or add to existing initiatives where CMS is well placed to extend its current remit. Species should only be chosen after careful review and ideally chosen as flagships whose conservation will address wider issues. Again this gives an important steer on future priorities for action.

Review 2 noted also that there was already good geographical coverage for many migratory species, however, for CMS; the East Asia–Australasia region deserves particular attention on account of the severity of the threats seen there and due to the high proportion of threatened migratory bird species (waterbirds, soaring birds and seabirds) and declining forest/passerine species found there.

The following overview Table, showing the relative coverage for species groups was produced as part of Review 2

Selected species groups	Region	Total number	Number (%)	Number (%)

not currently listed on CMS appendices or other instruments Species Group		species	declining	threatened or near-threatened
Petrels, shearwaters	Global	74	38 (51%)	27 (37%)
Waterbirds	East Asia–Australasia	61	23 (38%)	15 (25%)
Storks / Ibises	East Asia	8	5 (63%)	5 (63%)
Bustards / Floricans	Africa–Eurasia, C. Asia, S & E. Asia	4	4 (100%)	4 (100%)
Pigeons / Parrots	East Asia–Australasia	65	22 (34%)	11 (17%)
Pigeons / Parrots	Americas	61	25 (41%)	15 (25%)
Passerines	Americas	434	133 (31%)	25 (6%)
New world warblers	Americas	50	22 (44%)	4 (8%)
Passerines	Africa–Eurasia	188	64 (34%)	3 (2%)
Passerines	Central Asia	125	46 (37%)	0 (0%)
Passerines	East Asia–Australasia	315	93 (30%)	10 (3%)
Larks	Africa–Eurasia, C. Asia, E. Asia	33	15 (46%)	0 (0%)

Drawing from the table above and from the earlier reviews more generally, it is clear that under the aegis of CMS waterbirds have good coverage under AEWA only, and are not yet covered effectively by CMS in the other Regions. Work by the East Asian and Australasian Flyway Partnership has, however, added considerable information for key sites in that flyway area.

Similarly raptors are covered under the Africa-Eurasia MoU but are not covered in the other Regions of the Word

Passerines have been somewhat neglected, probably due to the relative lack of data, and probably due in part to the complexity of the conservation management involved for species in many Regions. Real information gaps exist also for Central and East/SE Asian landbirds (birds of forests and agriculture/grasslands). The is picture of data deficiency is not, of course true in all Regions and in Europe and North America some key studies have been undertaken on the migration of passerine species. Further analysis of the data and information derived from these studies may prove valuable context for any future agreements covering these species.

As noted above in the “Regional” section of this report seabird species not currently covered by ACAP or AEWA are viewed as a priority for conservation action by the Flyways Group.

Action: In considering how best to respond to the species focussed priorities outlined here the Flyways Working Group suggests that it is important to build on existing agreements and initiatives for these and related species. Equally, it does not seem practical to develop stand alone, formal and strictly legally binding agreements in every case; rather the priority is to develop action plans (that really are effective on the ground), set within a wider, generic legal framework. (See Annex 5, showing the Diagram of Region Framework agreements and Action Plans). The Flyways Working Group suggest that this combined mechanism of Framework agreements and Action Plans could provide an approach that streamlines the use of resources by governments and that opens to way for more rapid conservation action in future, especially if developed in an open way that encourages opportunities to involve a wide range of stakeholders and partners.

6 OPTIONS FOR CMS INSTRUMENTS FOR MIGRATORY BIRDS.

Given the pressures currently facing migratory bird species it is timely to review how best to take action to improve their conservation status. The reality is, however, that governments have increasingly limited resources, including staffing for this work and

are likely to be wary of entering tightly fixed legal agreements that may commit them in ways that are difficult to fully cost into the future. In considering the way forward for agreements under the auspices of CMS it is therefore necessary to examine the high level options for action, and to outline the factors for consideration in the early, developmental stages of any new agreement that might be proposed. As with other bodies the Convention will, increasingly, have to strive for a more cost-effective approach for the delivery of outcomes. This approach is likely to be a major feature of the forthcoming Conference of the Parties.

6.1 High level policy options:

The following three options for future action are not mutually exclusive; rather they represent stages along a continuum of activity. They do, however, help clarify the possible approach from CMS to agreements in the future. In considering these options it is important to identify both the theoretically ideal position in terms of taking forward agreements, and the needs from a practical viewpoint, e.g. to identify what resources are actually available for this work.

OPTION 1: CONTINUE AS NOW

Do nothing (new); leave the situation as now, with a few large agreements and a number of smaller, more specific MoUs functioning effectively. Focus on the delivery of existing agreements on the ground, whilst progressing with new agreements only where a clear priority need has been identified and the Parties to the Convention have committed to resources to support its development.

OPTION 2: WIDER CO-ORDINATION

Consolidate the leading position and status of the Convention by using resources more efficiently and effectively to develop the global coverage and co-ordination of agreements. Develop new overarching Regional agreements by proactively filling the gaps in the present flyway agreement coverage, and underpin this with a series of flexible Action Plans, focused on the most important conservation priorities in each Region. Further develop the integration and coordination of effort between existing agreements to ensure their continued delivery across common themes.

OPTION 3: SCALE BACK

Cease the development of new agreements and integrate existing agreements to increase the efficient use of resources, especially personnel within the various secretariats. Specifically, do not start any new agreements over the coming triennium.

Action: The Flyways Working Group considers that Option 2 (Wider coordination) is the only high level option that will allow the Convention to fulfil its remit over the coming triennium and beyond. It is also the only way to ensure global level coverage by agreements designed to steer conservation action on priority species and issues.

6.2. Developing a new approach

If Option 2 above is to be implemented over a reasonable timescale, then a simpler and easy mechanism to administer the system of agreements would need to be put in place. Historically CMS has developed legal Agreements, such as AEWA and ACAP, usually with fully funded secretariats for waterbirds and for some seabirds respectively. It has developed also non- legally binding Memoranda of Understanding; normally without a prerequisite for a fully funded secretariat, but which are usually funded from voluntary contributions from the Parties. A key issue to consider for the future is whether this approach remains effective, given the level of problems faced by species around the world; the increasing rate of negative changes to important habitats and species, as well as the growing problem of resource constraints faced by governments. Alternatively, in future it may be desirable to develop a series of simpler, common legal framework agreements covering all migratory bird species in each of the Regions of the world. These overarching agreements could be supplemented with action plans focussing on the particular conservation requirements of key groups in the region. Whilst a radical step, and one that would need to be fully costed, this could have the benefit of dramatically speeding up the creation of a coherent overview of conservation priorities, and lead to the relatively rapid development of action plans, and so to a greater level of action on the ground within reasonable timescales. This approach could help minimise the administrative burden on the governments concerned, since they would potentially have to deal with only one legal agreement rather than multiple smaller scale

arrangements as now. Clearly, the balance between the present situation, and any general agreement along with specific action plans, would need to be evaluated in greater detail before this step could be put into practice. It is worth noting, however, that this option introduces greater scope to develop a wide range of partnerships, for example, with multi-national companies and other corporate bodies, in the development and implementation of Action Plans designed to tackle the range of urgent habitat and species issues noted earlier in this report. Note that in developing such an approach it is important to maintain the momentum of present conservation action on the ground, so that important initiatives are not slowed.

The following outlines the potential advantages and disadvantages of this approach:

TABLE 1 POTENTIAL ADVANTAGES AND DISSADVANTAGES OF OVERARCHING REGIONAL AGREEMENTS AND ACTION PLANS

Potential Advantages

1 Relatively simple overarching agreement

2 Common formats across Regions

3 Simpler for countries to work with-only one agreement that is legally binding

4 Lower administrative and management costs

4 Relatively quick to put in place- to recognise the urgency of the situation

5 Common text to include the "threats" to species listed in section four of this report

6 Fills the obvious gaps in coverage and helps facilitate global level coordination

7 Action Plans focussed on really key priorities for action

8 Action Plans flexible and adaptable to individual situations

9 Increases participation and opens the way for better partnerships at the Action Plan level with NGOs, other Conventions and Governments as well as with the business sector.

10 Gives CMS a "new" initiative that will generate wider interest

11 Allows the development of an agreement that will cover all bird species, so helping bring attention to otherwise neglected groups

12 Facilitates the participation of non-Parties

13 Develops a truly Regional approach for CMS

14 Enables issues common to many groups of species to be tackled across the board, e.g. habitat change or unsustainable use.

Potential Disadvantages

1 Overarching agreements may be too simple

2Overarching agreements may be too general and lack focus, by trying to relate to too many species or issues

3 Regional approach could go too far and the Convention lose its overall ability to coordinate activity

4 Real differences may develop between Regions to the detriment of delivery

5 Administrative burden may be much greater than envisaged after the set-up phase

6 Parties may not "buy in" to the Action Plans leading to limited delivery overall

7 Action plans may be too flexible and lack any real substance

8 Co-ordination between regions may not actually occur as a result

9 May need the creation of a global co-ordination meeting, held periodically to ensure that work is effective.

10 May be seen as getting in the way of delivery from the existing Agreements and MoUs and raises questions about their future status.

xxxxxxxxxxxxxxxxxxxxxxxxxx

Action: The Flyways Working Group suggests that CMS consider this new approach; with Regional Framework Agreements supported by Action Plans focussing on the most urgent habitat and species conservation need in each Region of the world.

6.2.1. Developing new agreements

Review 1 has examined and summarised the existing coverage of agreements from both a geographical and species perspective. It is clear from the conclusions of that Review that each flyway-based conservation instrument has its own strengths and weaknesses related to the core purpose that it seeks to address. Whilst it is difficult to draw any clear conclusions about the value of one agreement compared to another, Review 1 highlights the following points for consideration in developing any agreement:

Guidelines for the development of new agreements:

• Which flyway and which migratory bird species/populations would the proposed instrument address?

• What are the main threats and pressures adversely affecting the conservation status of those species/populations?

• How and why would the proposed new instrument constitute the best possible framework for implementing the required conservation measures effectively and sustainably? (I.e. why would it be better than an alternative approach?)

• What is the broad geopolitical context? Is there a tradition of working through legally binding treaties or a more flexible voluntary partnership approach? Are there

specific political factors involved that would make it difficult for key range states to join a legally binding agreement? For example, does the flyway include developing countries for whom a species-led approach to conservation may be less relevant than an approach based on the maintenance of multiple ecosystem services that provide tangible economic benefits (with conservation of migratory bird species a more indirect benefit)?

• Is there a strong reason to believe that an additional instrument would really enhance the conservation of migratory birds and their habitats? Could those same benefits be met or exceeded by strengthening existing instruments? Is there scope for enhanced cooperation and synergy between existing instruments? How could this be realised in practice?

Action: The Flyways Working Group suggests that the guidelines presented in 6.2.1 are useful in assisting in the evaluation of any new agreement, and could be adopted by CMS as a guide to aid Parties in such deliberation

6.3 Identifying priorities and a planning for action:

In developing any new approach it is important to examine the reasons why the present way of working has been developed, so that change is not simply introduced for its own sake.

It is clear that the main Convention is too “big” to tackle all the detailed issues and threats that are common to some migratory birds, hence the development of the present Agreements and MoUs, each allowing greater focus on particular conservation problems. Moving to a system of overarching Regional level Framework Agreements does of course have risks in that the larger and more general these agreements become there is a danger of losing focus and of reducing the ability to get coherent scientific and technical advice on specific problems. This has, however, to be balanced by the opportunities it could create to tackle in a practical and holistic way some common problems that span species groups such as habitat destruction or the problems of alien species, for example. The route to

maintaining focus lies in the development of Action Plans, designed to address specific issues and to carefully target resources on the priority problems that have been identified.

In developing the proposed way of working it is important to consider what this will mean in practice for the existing Agreements and MoUs. In tackling the issues impacting on migratory birds covered in Section four above, it is important to consider what a plan of action would look like? The following section presents complementary “lines” of activity for the future maintenance and development of agreements:

6.3.1 Initiative 1: Maintaining and developing existing agreements

1.1Maintain the emphasis on the implementation of AEWA and ACAP, (Noting that both these Agreements have their own MoP and funding streams), as these are key delivery mechanisms for the Convention.

1.2 Support the work of the MoU on Raptors and encourage the holding of the First Meeting of the Parties as soon as possible. Facilitate the work of the agreement and begin conservation work on the ground across the full extent of the agreement area. Priority should be given to capacity building in developing countries within the agreement area.

1.3 Continue to support the work of the other existing smaller (in terms of Parties) single or multiple species MoUs.

6.3.2 Initiative 2: Developing global co-ordination

If the need to develop a global coordination is accepted, then this would lead to the following actions:

2.1 In order to achieve global coverage it is essential that several large countries assist in the development of this approach. The addition of Brazil, China, Russia and the USA would allow a much greater geographical “reach” and would allow substantial additional scientific and conservation resources to be deployed. Similarly, the addition of countries and regional organisations, such as ASEAN, in SE Asia in particular, would be of real benefit in the development of conservation action there.

2.2 Achieving a more comprehensive review of species to be listed on the Appendices to CMS is a key building block for global co-ordination.

2.3 The Flyways Working Group stressed the importance of developing synergies with the existing non- CMS arrangements presently covering the Americas and stressed the need to develop a conservation Action Plan for the Americas.

2.4 Establish a clear way forward for flyway management in the East and SE Asia and Australasia to encompass non waterbird species, building on the effective groundwork already established by others.

2.5 Continue the existing collaboration with the EAAFP and consider how to enhance implementation on the ground; and how the partnership can serve as a bridge towards a more permanent arrangement under CMS.

2.6 Consider the need for an agreement covering species in the “Pacific” and in particular consider how best to develop a practical approach to flyway management in this Region.

2.7 Establish the view of the Parties on how to take forwards existing work in the Central Asian Region. In particular, this should build on the work already done in this Region, where the existing draft action plan for waterbirds could be developed further in future.

2.8 Develop a plan of action for the “non-ACAP or AEWA seabirds,” and consider the relationship of this group of species to work already underway in ACAP or AEWA. This should be taken forward in conjunction with FAO and with Regional Fishery Management Organisations. The Flyways management Group suggested that, this could, perhaps be discussed at the next meeting of ACAP in order to develop an informed view of the detailed issues involved. In general, the Flyways Working group urged caution about AEWA becoming too immersed in marine issues, as this had not been its traditional area of operation.

2.9 In relation to Africa/Eurasia the key issue in taking forward the initiative was to consider the options for AEWA. The following options were highlighted at the Edinburgh Workshop:

- The status quo: AEWA dealing with waterbirds in the African-Eurasian flyway with binding action plans.

- CAF extension: extend the geographic scope of AEWA to cover the Central Asian Flyway

- Taxonomic extension: AEWA's coverage to include species other than waterbirds

- Geographic and species extension: AEWA to be the core of a wider framework birds agreement

These options were not mutually exclusive, as the second and fourth approaches could be followed in parallel, the former as a short-term interim solution while the latter, which was legally more complex, was being ratified.

The Flyways Working Group noted the importance and potential legal and cost implications of these options; and considered that further analysis of them was required.

2.10 The Parties should consider the role of the Flyway Working Group in providing coordination/guidance to oversee implementation of the set of initiatives (6.3.1-6.3.3). The meeting of the Flyways Working group in Edinburgh offered unanimous support for continuation of the work into the next triennium.

6.3.3 Initiative 3: Developing Action Plans and the provision of information and data

Noting that initiatives 1 and 2 above are 'big' initiatives, potentially dealing with multi-species groups covering very large geographical areas, delivery on the ground will still require to be focussed and coordinated via shared Action plans, set within this common Regional framework. These Action plans would be the main means to ensure that conservation action was effective, and could deal with a wide spectrum of issues ranging from those affecting only a small number of species to larger issues, e.g. habitat loss in a Region, that will affect many threatened species. The

development of Action Plans should be prioritised according to the guidelines outlined in section 6.2.1 of this report**.**

A number of species groups are under represented on the Appendices of the Convention. It is important that data and information is made available for these groups, so that a better assessment of their population status can be made. This is particularly true for the Passerines, where the migration patterns may be complex and the ecology of many threatened species is not fully known. CMS should encourage the collection and use of data on such species and where possible Parties should be encouraged to publish migration atlases and other relevant information. Note that in many cases much ringing data already exists but has not yet been fully analysed, hence has a high potential value for future work.

Action: The Flyways Working Group suggests that the above set of initiatives (6.3.1-6.3.3) would help develop a global approach to the conservation of migratory birds. It recognises that this would, of necessity need to be completed over the medium term and stresses that it is important to address the geographical and species gaps identified in this and previous reviews.

6.4 Mechanisms for Action

6.4.1 Linking to other government led initiatives

Annex 1 presents a calendar of major meetings. It is important in developing the actions outlined here that the main bodies of the Convention see and agree with the proposals. The CMS Scientific Council, Standing Committee and CoP all have a key role to play in the development and approval of future actions. In addition, given that many of the pressures on migratory birds, such as climate change and habitat destruction are also pressures on the human population, there is a need, and perhaps an opportunity, to mainstream flyways work alongside other initiatives from governments e.g. climate change monitoring and adaptation strategies, and sustainable development initiatives. These concepts could be incorporated into a resolution/recommendation for the next CMS CoP. Indeed some members of the Flyways group has already briefly considered this approach with the ideal being a draft resolution/recommendation being taken to CoP by representative Parties drawn

from each of the major Flyway Regions of the world. In addition, this Report could be discussed, as appropriate at each of the CMS family meetings noted in Annex 1.

Action: The Flyways Working Group recommends that a resolution/recommendation aimed to take forward the approaches outlined in this report is developed for the next CMS CoP. Ideally this should be proposed jointly by Parties from each of the flyways of the world, so that the truly global nature of the issues are immediately obvious to the Conference of the Parties. Note that further work will be required to provide an outline costing for the implementation of this approach.

6.4.2 Indicators

The “health” of migratory bird populations can act as an ecological indicator of the wider state of the environment, hence the potential relevance of these species to these other government led programmes. This link still remains to be made in many cases, however. There is therefore a clear need for the development of thinking in this area, and for new ideas on how to establish the link from the science of migratory bird ecology to wider policy formation, through to action on the ground. It is essential, of course, that effective monitoring of the species and habitats is supported in order to provide the data and information essential to track the status of indicator species and habitats.

Note that CMS, CITES, WHC and Ramsar have agreed to designate a common representative for the Ad Hoc Technical Expert Group on Indicators for the CBD Strategic Plan on Biodiversity 2011-2020.

Action: There is a need to harmonise the use of indicators across the work of all the international Conventions, and CMS should examine the new CBD indicator set following the agreement of the new CBD strategic plan, targets and associated indicators to ensure a degree of harmony with them.

6.4.3 Working in partnership.

A number of other international Conventions and bodies have a keen interest in the management of flyways, either from a species or habitat perspective, or both. Obvious partners for CMS in any new work include the Ramsar Convention, the Convention on Biological Diversity, the Convention on International Trade in

Endangered Species of Wild Fauna and Flora (CITES), and regional frameworks organisations including the Association of Southeast Asian Countries (ASEAN), Asia Pacific Economic Cooperation (APEC), Conservation of Arctic Flora and Fauna (CAFF), Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) and other relevant aspects of the Antarctic treaty Regime, and the South Asia Cooperative Programme (SACEP). Importantly, the new Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) could have a key role to play in highlighting the plight of migratory species and in illustrating the value of monitoring their populations as explained above. Similarly, many of the issues covered here such as climate change or wildlife disease present a common problem to other bodies. Working in partnership with the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change, Food and Agriculture Organisation (FAO) and other internal UN groupings on these, and other issues, will be significant in future.

In taking any new initiative forward, the support of many non-governmental organisations such as BirdLife International, IUCN, Wetlands International, the World Wildlife Fund (WWF), and the Wildlife Conservation Society (WCS) as well as various hunting organisations including the Federation of Association for Hunting (FACE), and the International Council for Game and Wildlife Conservation (CIC), will be important. CMS should therefore plan to strengthen work in partnership with these and with others in developing the work. CMS can achieve its objectives in a cost effective way by continuing to find creative ways to support and resource the work of these partners.

6.5 Issues of profile

In a world where there are multiple conservation initiatives from governments and a range of international bodies and organisations it is important that any new work related to flyway management “stands-out” and has an obvious profile with decision makers and with others. Work to achieve this should be included in any forward plan of activity and the issue of branding and profile considered as a key part of the plan.

6.6 Practicalities

The suggestions for a new way of working outlined in this report will take time to implement and will need to be completed in phases over the coming years.

As outlined in the introduction to this report, there are two key aims; to improve the global coverage of agreements under CMS to enhance the conservation status of threatened migratory birds; and to take action that will help achieve this on the ground, guided by the production of Action Plans to focus this activity on the top priorities. In achieving this it is important also to ensure that the present activity in existing agreements is not prejudiced. It seems logical, therefore, to concentrate new work initially on Regions where there is presently no structured agreement or where the existing agreements are very fragmented.

6.6.1. Developing Regional Frameworks

In taking this work forwards it will be important for the CMS Secretariat to consider how best to arrange any new agreement from a legal perspective. There are a number of options under the CMS system that could be deployed, ranging in levels of legal formality, with some being binding on the Parties and others being more flexible. Exactly how this is arranged will be for the Parties to decide, however, it may be useful to explore the legal options available.

It will be important over the coming triennium to use the existing agreements and structures to inform what action is needed. So for example, to request meetings of AEWA to consider how to develop the conservation needs for waterbirds, and to request meetings of ACAP to develop the wider approach for the conservation of seabirds. In addition, it will be necessary to organise workshops to consider how to proceed in using a generic approach to new agreements in the following Regions:

i) Central Asia
ii) East and Southeast Asia and Australasia
iii) Central and South America with a view to developing an “all Americas” approach.
iv) Pacific

These workshops could be phased over the triennium so that resources in the CMS Secretariat can be used effectively over that period.

Action: For the Secretariat and others to consider the options for the legal basis of Framework Agreements and to consider how best to deliver the Regional workshops listed above.

6.6.2. Developing underpinning Action Plans

The development of Action Plans is of key importance to any new approach; adding value in terms of better targeting of resources, being flexible and opening up options for enhanced partnerships with others. There are of course several ways that these Action Plans could be developed. For example, they could be focussed on particular species groups such as waterbirds or passerines; or could be structured primarily to tackle some of the key threats to migratory birds, such as habitat loss or climate change. Clearly, the next Conference of the Parties will need to take a view on how best to arrange these plans and to identify the priorities for action. In addition, it is important to note that there is likely to be a small number of highly threatened species where their ecological requirements are so specialised that a “one-off” Action Plan may be required, hence this situation should be accommodated in future.

Action: For the Secretariat and others to consider the legal basis for the creation and delivery of Action Plans as part of the overall approach.

TABLES AND ANNEXES

Annex 1

Timeline for major meetings - listed by parent Convention

CMS

23-24 November 2010 37th Standing Committee meeting. Bonn Germany.

17-18 November 2011 17th Scientific Council meeting. Bergen, Norway.

19 November 2011 38th Standing Committee meeting. Bergen, Norway.

20-25 November 2011 10th Conference of the Parties. Bergen, Norway.

25 November 39th Standing Committee meeting. Bergen, Norway.

AEWA

September 2010 AEWA Technical Committee 10th meeting, Nairobi, Kenya,

14-18 May 2012 Meeting of the Parties. La Rochelle, France.

ACAP

29th August - 2nd September 6th Advisory Committee meeting Guayaquil, Ecuador.

Ramsar

14-18 February 2011 Scientific and Technical Review panel. Gland, Switzerland.

16-20 May 2011 Standing Committee meeting. Gland, Switzerland.

18-26 June 2012 11th Conference of the Parties. Bucharest, Rumania.

CITES

19 May 2011 Deadline for the submission of documents for the 25th meeting of the Animals Committee.

16 June 2011Deadline for the submission of documents for the 61st meeting of the Standing Committee.

18-22 July 25th 2011meeting of the Animals Committee. Geneva Switzerland

15-19 August. 2011 61st meeting of the Standing Committee.

1012/1013 Next Conference of the Parties.

Convention on Biological Diversity

2010

18-29 October 2010 CBD 10th Conference of the Parties. Nagoya, Japan.

7-11 November, 15th Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice. Venue to be confirmed.

TIMELINE BY DATE: Grouping all relevant meetings by date.

2010

18-29 October 2010 CBD 10th Conference of the Parties. Nagoya, Japan.

23-24 November 2010 CMS 37th Standing Committee meeting. Bonn Germany.

2011

14-18 February 2011. Scientific and Technical Review panel. Gland, Switzerland.

16-20 May 2011. Standing Committee meeting. Gland, Switzerland.

19 May 2011 CITES Deadline for the submission of documents for the 25th meeting of the Animals Committee.

16 June 2011. CITES Deadline for the submission of documents for the 61st meeting of the Standing Committee.

18-22 July 25th 2011. CITES meeting of the Animals Committee. Geneva Switzerland

15-19 August. 2011. CITES 61st meeting of the Standing Committee.

29th August - 2nd September 6th, 2011. Advisory Committee meeting Guayaquil, Ecuador.

7-11 November, 2011. 15th Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice. Venue to be confirmed.

17-18 November 2011 CMS 17th Scientific Council meeting. Bergen, Norway.

19 November 2011 CMS 38th Standing Committee meeting. Bergen, Norway.

20-25 November 2011 CMS 10th Conference of the Parties. Bergen, Norway.

25 November 39th CMS Standing Committee meeting. Bergen, Norway.

2012

14-18 May 2012 AEWA Meeting of the Parties. La Rochelle, France.

18-26 June 2012 Ramsar 11th Conference of the Parties. Bucharest, Rumania.

1012/1013 CITES Next Conference of the Parties.

Annex 2

Threatened waterbirds of East Asian-Australasian Flyway (EAAF) intertidal habitats

There are already 12 globally threatened waterbirds dependent on the intertidal habitats of the EAAF, especially those under threat in the Yellow Sea and elsewhere on the eastern seaboard of North Asia. By 2014 the list could include a total of 24 species with the addition of as many as 12 wader species.

Emphasising the importance of the EAAF is appropriate given that, of the 34 threatened waterbirds in the Flyway, there are already 12 globally threatened birds dependent on the rapidly diminishing intertidal habitats, especially those under threat in the Yellow Sea and elsewhere on the eastern seaboard of North Asia. By 2014 as many as nine wader species could have been added to this list as destruction of the Yellow Sea intertidal zone continues apace**.**

1. Spoon-billed Sandpiper *Eurynorhynchus pygmeus*
2. Spotted Greenshank *Tringa guttifer*
3. Eastern Curlew *Numenius madagascariensis*
4. Great Knot *Calidris tenuirostris*
5. Asian Dowitcher *Limnodromus semipalmatus*
6. Black-tailed Godwit *Limosa lapponica* (*melanur*oides subspecies
7. Eurasian Curlew *Numenius arquata* (*orientalis* population)
8. Greater Sand Plover *Charadrius leschenaultia*
9. Grey –tailed Tattler *Tringa brevipes*
10. Terek Sandpiper *Xenus cinereus*
11. Bar-tailed Godwit *Limosa lapponica*
12. Curlew Sandpiper *Calidris ferruginea*

13. Red Knot *Calidris canutus*

14. Grey Plover *Pluvialis squatarola*

15. Lesser Sand Plover *Charadrius mongolus.*

16 Ruddy Turnstone *Arenaria interpres* .

17. Black-faced Spoonbill *Platalea minor*

18. Oriental White Stork *Ciconia boyciana*

19. Chinese Egret *Egretta eulophotes*

20. Saunders's Gull *Larus sandersi*

21. Relict Gull *Ichthyaetus relictus*

Annex 3

TERMS OF REFERENCE FOR REVIEW 3

Review 3 – Proposals for policy options for migratory bird flyway conservation/ management to feed into future shape of the CMS.

Background

The Flyway Working Group has generated two reviews that (a) provide a review of CMS and non-CMS existing administrative/ management instruments for migratory birds globally, and (b) provide an overview of scientific/technical knowledge of bird flyways and major gaps and conservation priorities. Based on these reviews, the Working Group has been mandated to provide proposals for policy options for migratory bird flyway conservation and management to feed into the ongoing review and planning for the future shape of the CMS family of international instruments for bird conservation .

The consultant will be responsible for:

1)Undertaking a desk study - an analysis of the two recently produced FWG reviews (1 and 2),

2)Communicating/conducting interviews of key persons/agencies/organisations involved with the major key flyway instruments,

3)Producing the draft review, as per the draft table of contents

4)Finalising the review, through two rounds of consultation, as per the work plan

Proposed process:

1)Production of the first draft review

2)Circulating of the first draft review to the Working Group for comment/review,

3)Revising of the first draft review to incorporate comments,

4)Circulating of the second draft review to the Working Group and other experts, and
5)Production of the final review

Outputs
Production of a written review, as per the table of contents and timeline below.

Draft table of contents

- Executive summary
- Briefly outline/describe major flyways for different migratory bird groups (from review 2)
- Summarize coverage of existing CMS and non CMS instruments/frameworks (from review 1)
- Outline the key ecological pressures impacting on migratory birds, including climate change, habitat loss and fragmentation, as well as unsustainable use and by-catch.
- Propose priorities for development of CMS instruments to cover major flyways, species groups, species/populations and CMS Appendix I and II listed species.
- Propose suitable options for CMS instruments for migratory bird conservation (different instruments may be required to deal with different flyway regions, species groups and species), including potential mechanisms for implementation (such as strong partnerships arrangements with other IGOs, NGOs, etc).

Reporting deadline

Final review see table for preliminary steps

Proposed Schedule

	2010			**2011**	
	Sep	**Oct**	**Nov**	**Jan**	**Feb**
Finalise agreement	27				
Finalise Terms of Reference		6			
Produce the first outline draft review and send it to Flyway Working Group (FWG)		12			
Responses of first comments from the FWG on 1st draft		29			
Submission of the draft version to CMS for presentation to the 37th Meeting of the CMS Standing Committee			15		
Presentation to the 37th Meeting of the Standing Committee			23-24		
2nd draft sent to the FWG, CMS Scientific Council and other experts for comments			26		
Responses of final comments from FWG, SC and others					15
Finalisation of the Report					27

Annex 4 Acknowledgements

I am grateful to the following colleagues for providing valuable comments on the earlier drafts of this Report, or for helping in other ways over the course of its production.

Taej Mundkur – Chairman of the Flyways Working Group

Ian Bainbridge

Leon Bennun

Olivier Biber

Birdlife International- various staff

Gerard Boere

Joost Brouwer

Joaquin Calvo

Laura Cerasi

Nicola Crockford

Carlo Custudio

Nick Davidson

Sergey Dereliev

Jose Joaquin Calvo Domingo

Abdellah El Mastour

Lesley Gidding

Ward Hagameijer

Brian Hayum

Borja Heredia

Neil Hughes

Roger Jaensch

Samuel Kasiki

Florian Keil

Sergei Khomenko

Jelena Kralj

Bert Lenten

Angus Middleton

Rosa Montañez

Narelle Montgomery

Cristina Morales

Kabemba Donatien Muembo

Szabolcs Nagy

Scott Newman

John O'Sullivan

Maria Christina Morales Palarea

Warren Papworth

Nopasika Malta Quathekana

Herb Raffaele

Roberto Schlatter

Paul R Schmidt

Fernando Spina

Prakriti Srivastava

David Stroud

Robert Vagg

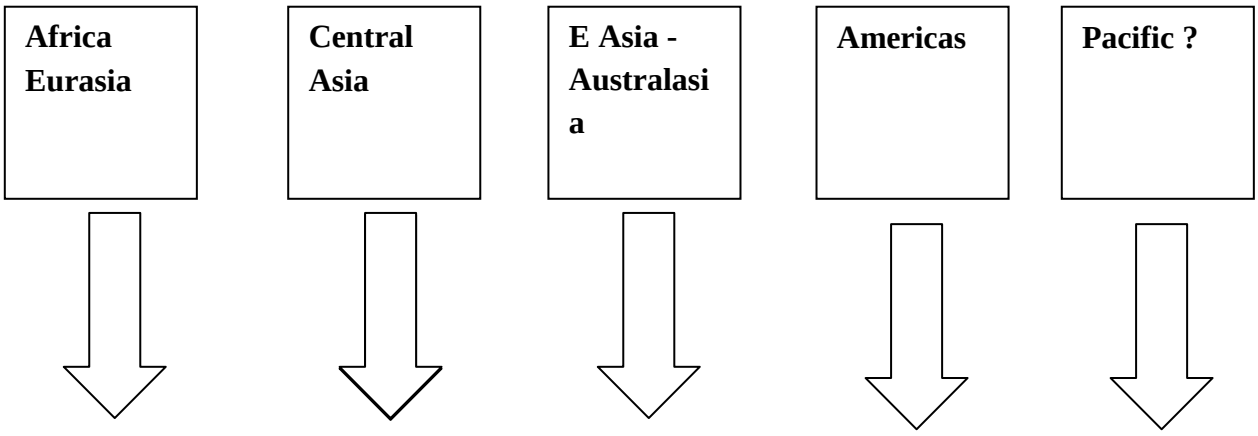
I am grateful to David Stroud, Gerard Boere and Des Thompson for the use of Map 1 on page 17; to Birdlife International for the use of Map 2 on page 18, and to Scott Shaffer and the National Academy of Sciences, USA for the use of the Maps on page 19.

Finally, I would like to thank Taej Munkur and Borja Heredia for their assistance throughout the time of this work.

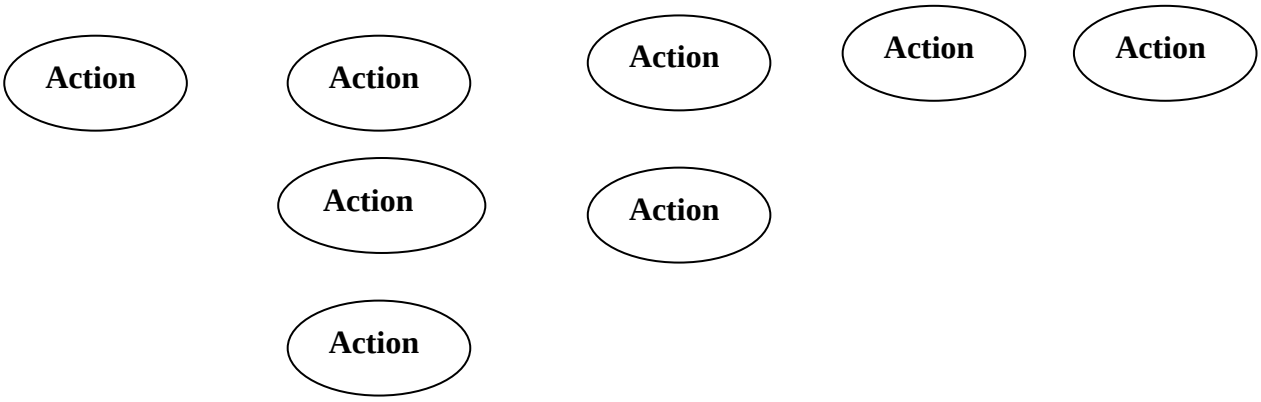
Annex 5

SCHEMATIC DIAGRAM OF A NEW AGREEMENT FRAMEWORK

Level 1 Series of five overarching Legal Framework Agreements: Provide the overall approach



Level 2 Series of Adaptable Action Plans focussing on priority species and issues.



Annex 6

Acronyms and abbreviations

ACAP Agreement on the Conservation of Albatrosses and Petrels

AEWA Agreement on the Conservation of African – Eurasian Migratory Waterbirds

ASEAN Association of Southeast Asian Nations

CAF Central Asian Flyway Action Plan for the Conservation of Migratory Waterbirds

CAFF Conservation of Arctic Flora and Fauna

CBD Convention on Biological Diversity

CCAMLR Convention on the Conservation of Antarctic Marine Living Resources

CIC International Council for game and Wildlife Conservation

CITES Convention on the Illegal Trade in Endangered Species

CMS Convention on Migratory Species

COP Conference of (Contracting) Parties

EAAF East Asian – Australasian Flyway

EAAFP East Asian – Australasian Flyway Partnership

EU European Union

FACE Federation of Association for Hunting

FAO Food and Agriculture Organisation

GEF Global Environment Facility

IUCN International Union for the Conservation of Nature

MEA Multilateral Environmental Agreement

MOP Meeting of Parties

MoU Memorandum of Understanding

NGO Non-Governmental Organization

OCED Organization for Economic Cooperation and Development

OIE World Organisation for Animal Health

Ramsar The Convention on Wetlands of International Importance (Ramsar, 1971)

SACEP South Asian Co-operative Environment Programme

TRAFFIC The wildlife trade monitoring network

UNCCD United Nations Convention to Combat Desertification

UNEP United Nations Environment Programme

WCS Wildlife Conservation Society

WHMSI Western Hemisphere Migratory Species Initiative

WI Wetlands International

WWF World Wildlfe Fund

BIBLIOGRAPHY

Brainerd, S. (2007): *European Charter on Hunting and Biodiversity.* Bern Convention document TPVS (2007) 7 revised, of 29 November 2007. Strasbourg, 28 pp

Review 1 *"A review of CMS and non-CMS existing administrative/management instruments for migratory birds globally".*
Presented to the 2010 meeting of the Scientific Council as UNEP/CMS/ScC 16/Doc 10 Annex 1a and 1b

Review 2 *"Review of Current Knowledge of Bird Flyways, Principal Knowledge Gaps and Conservation Priorities"*
Presented to the 2010 Meeting of the Scientific Council as UNEP/CMS/Sc C. 16/Doc 10 Annex 2a and 2b. Complied by Dr Jeff Kirby.

Scott A. Shaffer , Yann Tremblay , Henri Weimerskirch , Darren Scott , David R. Thompson, Paul M. Sagar, Henrik Moller, Graeme A. Taylor, David G. Foley, Barbara A. Block, and Daniel P. Costa. *Migratory shearwaters integrate oceanic resources across the Pacific Ocean in an endless summer.* Proceedings of the National Academy of Sciences, August 22 2006 vol 103 12799-1280.

Secretariat of the Convention on Biological Diversity (2004) *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (CBD Guidelines) Montreal.* Secretariat of the Convention on Biological Diversity 21 pp

Stroud D.A., G.C. Boere, C.A. Galbraith & D. Thompson. 2006. *Waterbird conservation in a new millennium – where from and where to?* In: *Waterbirds around the World*. Eds G.C. Boere, C.A. Galbraith & D.A. Stroud. The Stationery Office, Edinburgh, UK. p. 30–39.