



Convention on the Conservation of Migratory Species of Wild Animals

Secretariat provided by the United Nations Environment Programme



32nd Meeting of the Standing Committee

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CMS/StC32/16
Agenda Item 9.e

STRATEGIC REVIEW OF FLYWAY PAPER

by the CMS Secretariat

Background

1. At the September 2006 Meeting of the Committee, the Secretariat was asked to prepare a short, strategic paper on flyways for the members to consider at their next meeting. This followed a discussion on different models for flyway conservation including the new Partnership for the East Asian and Australasian Flyway, and the remaining issues concerning the Central Asian Flyway (CAF).
2. The first draft of this paper was prepared by the Secretariat and reviewed with several scientists and stakeholders. The current (second) draft is now submitted for formal consideration by the Standing Committee.

Biological Context

3. Bird migration is a highly complex phenomenon, both in its spatial and temporal organisation. The spectacular mass migrations of large soaring birds that fly by day using updrafts, which impose passage through narrow corridors, in particular to avoid sea expanses, led early observers to adopt the concept of migration routes.
4. However, it is now known that this is not typical, and that migration patterns are highly species-specific. Thus, passerines, especially insectivorous birds, largely migrate by night, on a very broad front, crossing sea expanses and deserts in their middle. Some, especially fringillids and larks, migrate for a few hours just before and after sunrise. All need relatively close staging points. Shorebirds, on the contrary, tend to migrate long distances, between more or less fixed staging points, so that they are rarely seen in large stretches of land over which they nevertheless pass.
5. The best known migrations, those that link breeding grounds to non-breeding areas and take place on an annual cycle, probably originated as a strategy by birds of southern latitudes to occupy northern harsher climates, regions with high seasonality. They therefore tend to be orientated from north to south, both in Eurasia and in the Americas. This is not though an absolute rule, and some birds, for instance in Eurasia, travel a strong east-west course (e.g. Lapwing, *Vanellus vanellus*, Sociable Plover, *Vanellus gregarius*, Pochard, *Aythya ferina*).
6. Other types of migration also exist, such as the well-known movements to moulting grounds by anatids, and the more recently appreciated large-scale movements of Mediterranean and Pontic birds northwards, just after the breeding season.

7. This biological complexity explains that the notion of migration routes has long been abandoned, and that even that of flyways, discussed below, is not, or seldom, used in connection with many groups of birds, i.e. Passerines.

The flyway concept

8. The concept of flyway is essentially an operational concept linked to waterfowl whose populations one wishes to manage over their entire migration space. It was originally a North American approach. The North American continent was divided in the 1930's-1940's into four "flyways" (Pacific Flyway, Central Flyway, Mississippi Flyway, Atlantic Flyway) to provide a spatial management framework for waterbirds. The concept was only much later extended to other continents and in particular to Eurasia, retaining, however, its link to waterbirds and, in part, to waterbird management and exploitation.

9. In the course of this extension, and of changes of nuance or emphasis, by those that wished to use, refer to, or promote the concept, a certain amount of confusion has arisen. A robust definition of flyway has been proposed by Boere and Stroud (2006: 40) as "... the biological systems of migration paths that directly link sites and ecosystems in different countries and continents".

10. Thus defined, a flyway is a geographical region within which a species or a constellation of species, or some populations of a species or of a constellation of species complete their annual cycle. It includes the areas where the birds breed, the areas of the main non-breeding or contranuptial range, migration stopover areas, areas where birds that have not yet reached breeding maturity may spend the breeding season, moulting areas, post-breeding expansion areas. Migratory orientations of many species may more or less follow the axis of the overall area, but they do not necessarily do so¹.

11. Because waterbirds are by definition attached to habitats that are patchily and often parsimoniously distributed in the landscape, the effective geographical area thus envisioned is never the entire land or sea surface over which flyover takes place, but takes more the appearance of an archipelago or network of sites. Hence the emphasis placed by all flyway and related concepts on networks of sites. These networks need to be articulated and have close functional connectivity. Indeed, each site has a role to fulfil as a breeding, non-breeding, stopover or moulting site for one or several of the species involved in the flyway. Each of these roles requires different ecological characteristics. The sites must be complementary to each other, or some parts of the migratory cycle will be poorly supported. The weakest link will, of course, set the overall efficiency of the network.

Overview of World Flyways

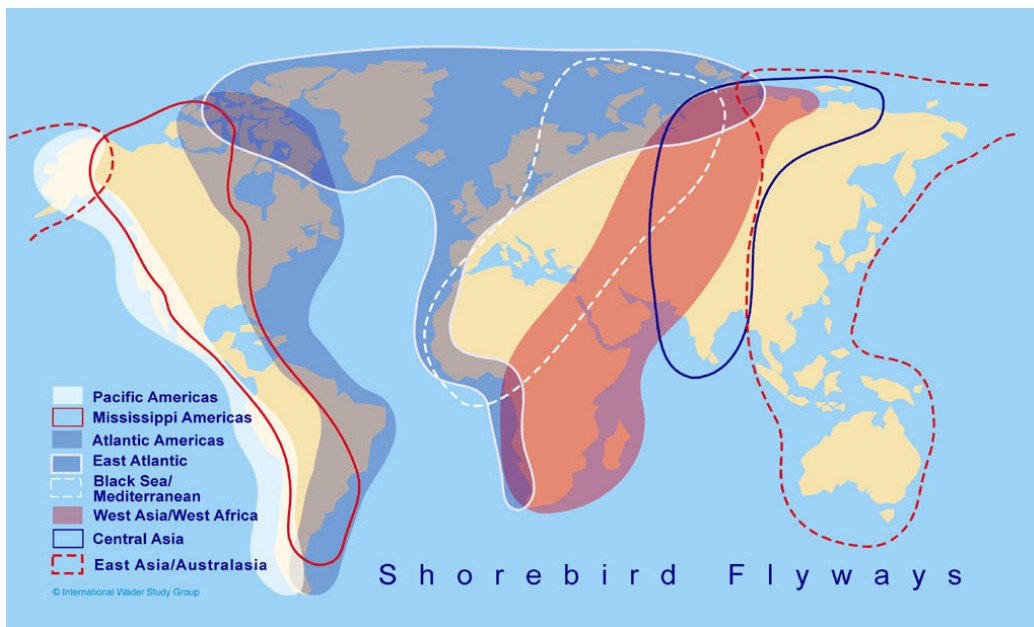
12. Regarding flyways not as biological phenomena, nor as administrative management units, but as geographical entities, precisely defined portions of the surface of the earth, as recommended by Boere and Stroud (2006: 40) considerably simplifies reviews and comparisons of the sometimes contradictory flyway arrangements that have been proposed by researchers, administrators or conservationists and the links that have, can or could be established between these arrangements and regional agreements.

13. Indeed, depending, in particular, on whether the accent is on waterfowl or shorebirds, depending also on the continental perspective taken, different divisions of the world into flyways

¹ Thus, it is now known that although White Storks migrate from Europe to Africa along a more or less north-south pattern, they develop at the level of the Sahel a strong perpendicular east-west to-and-fro component to exploit the locusts on which they are dependent.

have been proposed. Thus, from an anatid point of view, eight relatively short flyways are usually mapped. On the North American continent they are the four classical flyways (Pacific, Central, Mississippi, Atlantic), which North American workers see as "converging at Panama". They do not take into consideration what might happen to them in South America. In Western Eurasia, they are essentially the ranges of the three "main geographical populations of Anatidae" defined by Isakov in 1967: Northern White Sea/North Sea, European Siberia/Black Sea-Mediterranean, West Siberian/Caspian/Nile (Boere and Stroud, 2006: 43). In Central and Eastern Eurasia, they are the Central Asian Flyway (which includes and extends westward, northward and eastward Isakov's Siberian/India population), and the East Asian Flyway, which reaches southward to the Greater Sunda Islands.

14. From a shorebird research, management and conservation point of view, eight flyways are also proposed (Boere and Stroud, 2006: 42). In the Americas they now include a Pacific Americas, a Mississippi Americas, an Atlantic Americas flyway. These differ from the North American anatid flyways in that they extend to the southern end of South America, that the Central and Mississippi flyways are combined into one, and that the Pacific Flyway is extended somewhat more into the Pacific Ocean². In Eurasia five flyways are distinguished. The East Atlantic Flyway includes Atlantic Europe, Greenland, north-eastern Canada and the west coast of Africa. The Black Sea/Mediterranean Flyway includes Central and central Eastern Europe, Southern Europe, the Mediterranean and the Black Sea, most of North Africa, the Western Sahara and the bulge of Africa, to the Gulf of Guinea. The West Asia/East Africa Flyway includes central northern Siberia, extreme eastern Europe and western Siberia, the Middle East, the Arabian Peninsula, north-eastern, eastern and southern Africa, Madagascar and its associated Indian Ocean islands. The Central Asia Flyway includes central Siberia, central Asia and the Indian subcontinent. The East Asia/Australasia Flyway includes eastern Siberia, most of China, Korea, Japan, south-eastern Asia, the Sunda archipelago, New Guinea and Australia.



Shorebird Flyways. Source: International Wader Study Group

15. A practical arrangement that seems to best accommodate and integrate the traditions of waterfowl management agencies and the habits of researchers and conservationists in various fields of avian migration studies while taking fully into account the existence of established or proposed

² Other shorebird evaluations propose five flyways in the Americas (Brown et al., 2001).

regional agreements is outlined below. It is a slight modification of the scheme outlined by Boere and Stroud (2006: 42), reproduced below.

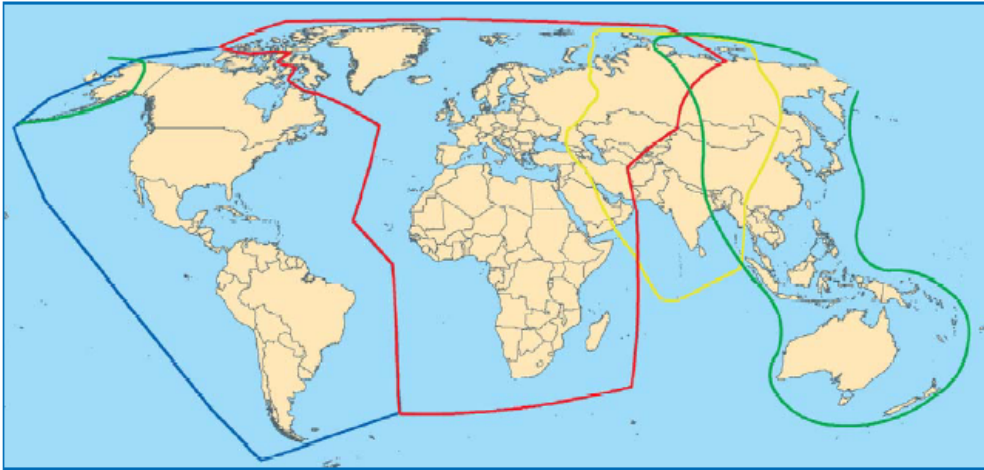


Figure 5 of Boere and Stroud (2006: 42) - Regions of the world subject to either actual or potential multilateral agreements for the conservation of migratory waterbirds

16. It divides the world into five flyway areas, with some overlaps at the margins :
- (i) **The African Eurasian Migratory Waterbird Agreement (AEWA) area** which includes north-eastern Canada, Greenland, western, central and eastern Europe, western Siberia, the western Central Asian republics, the Caucasus, the Middle East, the Arabian Peninsula, all of Africa, Madagascar and its associated islands.
 - (ii) **The Central Asian Flyway (CAF) area**, which includes central Siberia, Mongolia, the Central Asian republics, Iran and Afghanistan, the Gulf States and Oman, the Indian subcontinent.
 - (iii) **The East Asian Australasian Flyway (EAAF) area**, which includes eastern Siberia, eastern Mongolia, Korea, Japan, eastern China, south-eastern Asia, the Sunda archipelago, the Philippines, New Guinea and Australia. New Zealand is often included.
 - (iv) **The Americas**, a surface that includes North, Central and South America and the Caribbean and which includes the four traditional North American flyways (Pacific, Central, Mississippi, Atlantic) as well as the area over which a number of South American initiatives are in progress.
 - (v) **The Central Pacific Flyway**, an area that extends over the Pacific Ocean from Alaska to New Zealand. It is travelled by a relatively small number of species which, however, undertake some of the most spectacular migrations on earth. The flyway, recognised by many shorebird researchers, is often appended to either the East Asian Australasian Flyway or the North American Pacific Flyway, neither of which is a happy solution. Its originality is worth emphasising.

Existing Agreements and initiatives and current CMS involvement

(i) AEWA.

17. AEWA is an Article IV, paragraph 3 AGREEMENT under CMS. It meets all the requirements of such an AGREEMENT, which are very clearly spelled out in the convention itself, in particular under Article V, Article VII, Article VIII, Article IX, and are further explicated by Resolutions 2.6, 2.7 and 3.5.

18. It is the most ambitious of the agreements ever concluded under CMS and was one of the original four AGREEMENTS that the COP, at its first meeting³, asked the Secretariat to develop. It was signed at the Hague on 16 June 1995. It has been a model for other instruments of the convention. It has now been signed by 59 states, 3 of which are not parties to CMS.

19. The development and negotiation of AEWA was a long and delicate process, in particular to insure smooth articulation with European Union directives and regulations, which governed a large portion of the territory included. There was a need to ensure that the measures envisaged prolonged the effects of the Wild Bird Directive (79/409) outside of the borders of the Union without deterring from its implementation inside these borders. Most important in that respect, of course, was to envision a continuation southwards of the Special Protection Area, later Natura 2000, site network of the European Union and the Emerald network of the Council of Europe. In the preparatory phases, much new ground was broken, ecological, managerial and legal paradigms were explored in depth. Obviously the decision was taken early to cover all waterbirds, in the general acceptance of the term, rather than just anatids as originally envisaged by Resolution 1.6. Reasons to include all waterbirds, but only waterbirds, and no other groups of animals, were analysed, discussed and explained at length.

20. The Agreement applies at present to about 235 species of penguins, divers, grebes, gannets, cormorants, herons, storks, shoebills, ibises, flamingos, anatids, cranes, rails, crab plovers, oystercatchers, avocets and stilts, stone curlews, pratincoles, plovers, scolopacids, gulls, terns and skimmers. The policy of, in essence, using the possibilities of Article IV, paragraph 4 to include species not on Appendix II of the Convention, provided that they belong to groups that have representatives on Appendix II was clearly sound. It is perhaps regrettable that a rigid application of this criterion excluded closely related groups that would have benefited from the Agreement, notably alcids, whose migrations are in part pelagic, but also largely coastal, and skuas, which migrate along coasts and across continents. Among the 235 species covered, 14, *Pelecanus crispus*, *Pelecanus onocrotalus*, *Geronticus eremita*, *Anser erythropus*, *Branta ruficollis*, *Marmaronetta angustirostris*, *Aythya nyroca*, *Polysticta stelleri*, *Oxyura leucocephala*, *Grus leucogeranus*, *Sarothrura ayresi*, *Vanellus gregarius*, *Numenius tenuirostris*, *Larus leucophthalmus*, are on Appendix I of CMS. Two of them, *Anser erythropus* and *Numenius tenuirostris*, are the object of a Concerted Action, with an Action Plan, and, for *Numenius tenuirostris*, a single-species MOU.

21. The fact that a large proportion of CMS parties that are range states have signed the Agreement is a measure of the success of AEWA and of the AEWA formula. So is the fact that several non-parties have signed, and that for them the Agreement may be a gateway into the Convention, as originally envisaged by COP1. AEWA has excellent communication, awareness-raising and capacity-building strategies and programmes. It has recently succeeded in acquiring important implementation tools, and substantial supporting funds, in particular, through the Wings

³ Resolution 1.6. The Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals, Recognizing the importance of demonstrating the effectiveness of the Convention, Aware of the particular need to conclude Agreements for appendix II species, Instructs the secretariat to take appropriate measures to develop Agreements for the following species and groups of migratory animals: ... Western Palearctic Anatidae; ...

over Wetlands (WOW) project⁴, "The African Eurasian Flyways Project". These tools can only enhance the effectiveness and implementation of the Agreement. Some caution must, however, be exercised so that confusion is not created in the minds of the interested public and that they appear clearly for what they are, implementation tools, not as new enterprises that would parallel and duplicate AEWA, an impression that could be created by expressions such as, "an innovative approach that aims to improve the conservation status of African Eurasian waterbirds"⁵ and the switch from the clear conservation vocabulary of AEWA to more fashionable jargon.

22. The achievements listed above are mostly ones of process. The effectiveness of AEWA still needs to be fully assessed in terms of conservation results, in particular, for what appeared to be one of its major practical conservation objectives⁶, the establishment of a complete, coherent and secure network of sites in parts of its range not covered by the Natura 2000 and Emerald initiatives. Very little data is available in the AEWA documentation on such networks or on the evolution of bird populations concerned by the agreement. In the draft Strategic Plan for AEWA, which will be submitted to MOP4 in 2008, more measurable targets will be set which might give more information on conservation result achieved in the future. However measuring the success of an international treaty regarding conservation of species is far from easy and not well developed so far. Most MEAs suffer from similar deficiencies, although CMS has a programme on developing migratory species indicators under Res. 8.7 which is being carried out within the framework of the 2010 Biodiversity Indicators Partnership. The CMS Scientific Council agreed at its meeting in March 2007 to extend its existing work on indicators to see if said indicators could be developed with other MEAs, including Ramsar.

23. AEWA has developed or is developing Single-Species Action Plans for several Appendix I species within its scope, in particular, *Geronticus eremita*, *Anser erythropus*, *Branta ruficollis*, *Aythya nyroca*, *Oxyura leucocephala*, *Sarothrura ayresi*, *Vanellus gregarius* and *Numenius tenuirostri*. Again there is not much information available on which to base an evaluation of the practical impact of the instrument in this crucial domain. In accordance with paragraph 7.4 of the AEWA Action Plan, the Agreement Secretariat, in coordination with the Technical Committee and the Parties, has to prepare a series of international reviews. For MOP4 one review will address the preparation and implementation of single species action plans. However this will primarily report on processes and not on real impact of the implementation of these Action Plans on the species.

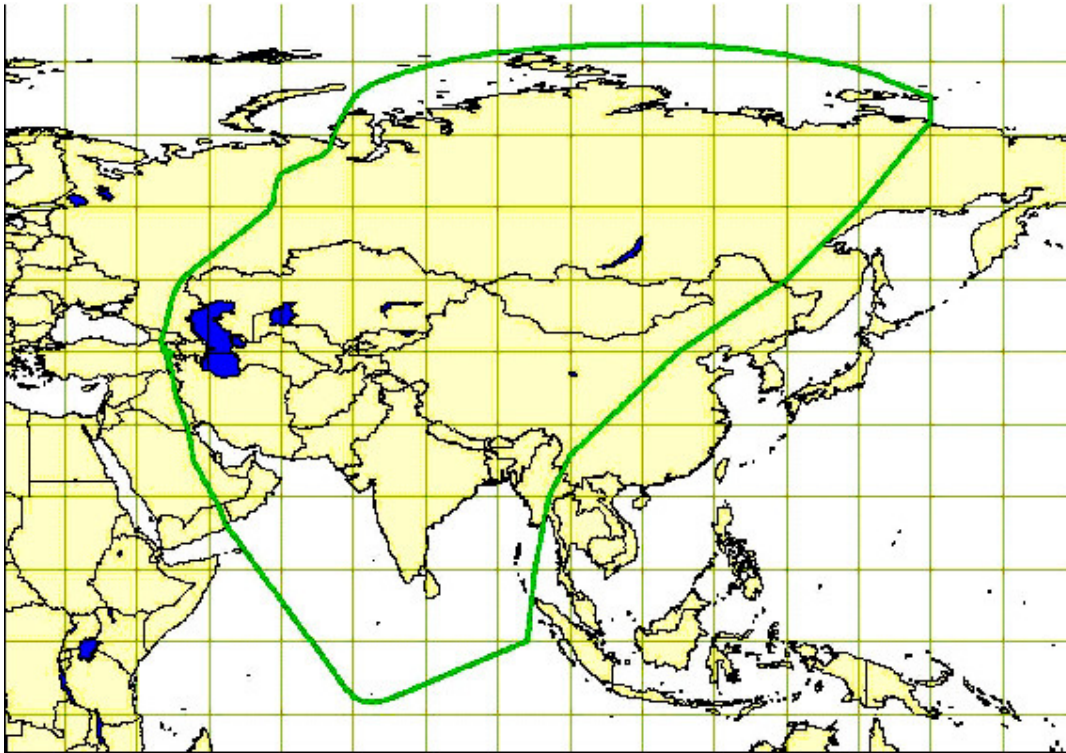
⁴ The project is a partnership between Wetlands International, BirdLife International, AEWA, the Ramsar Convention, WCMC and a range of local partners along the African-Eurasian flyway. WOW has a budget of more than US\$ 12 million, with core support coming from the GEF through UNEP, the German Federal Ministry for Environment, Nature Conservation and Nuclear Safety, the AEWA Secretariat and several other donors. The project area includes 119 Range States, covering Africa, Europe, south-west Asia, Greenland and the Canadian Archipelago.

⁵ WOW website.

⁶ **Article III c** –[the Parties shall] identify sites and habitats for migratory waterbirds occurring within their territory and encourage the protection, management, rehabilitation and restoration of these sites – **Article III d** –[the Parties shall] coordinate their efforts to ensure that a network of suitable habitats is maintained or, where appropriate, re-established throughout the entire range of each migratory waterbird species concerned – **Action Plan**, 3.2 Conservation of Areas 3.2.1 Parties shall endeavour to continue establishing protected areas to conserve habitats... 3.2.4 Parties shall endeavour to develop strategies, ... for the conservation of the habitats ... including the habitats of those populations that are dispersed. 3.3 Rehabilitation and Restoration. Parties shall endeavour to rehabilitate or restore... areas which were previously important

(ii) Central Asian Flyway (CAF) Process

Indicative Map of the Central Asian Flyway Region



The boundaries depicted on the map do not imply official endorsement or acceptance by UNEP/CMS

24. The CAF territory is essentially centred on one of the three major wintering areas of waterfowl in the Old World, the Indian subcontinent - the other two being Africa, in AEWA territory, and south-east Asia, in EAAF territory. These three wintering areas do not overlap geographically, and present entirely different ecological, historical and cultural situations. The second originality of the CAF territory is its mid-range migration systems, over the steppes and cold deserts of Central Eurasia, and mostly over the Himalayan chain, where unique, high-altitude migration voyages such as those of the Bar-headed Goose, *Anser indicus*, take place. Overlap with the other two flyways exists at that level, but is limited.

25. The northern catchment area of CAF inevitably overlaps, and considerably overlaps, with both those of AEWA and EAAF, mostly within a single country, the Russian Federation. Mongolia, an immense zone situated in the centre of the CAF area, is barely touched by Africa-bound migrations, a little more by south-east Asian-bound ones, mostly in the east. Altogether, the independence of the CAF area is well established.

26. The CAF Action Plan covers 175 species of divers, grebes, pelicans, cormorants, herons, storks, ibises, flamingos, anatids, cranes, rails, sungrebes, jacanas, crab plovers, oystercatchers, ibisbills, stilts and avocets, pratincoles, plovers, scolopacids, gulls and terns, of which 13, *Pelecanus onocrotalus*, *Pelecanus crispus*, *Anser erythropus*, *Branta ruficollis*, *Marmaronetta angustirostris*, *Aythya nyroca*, *Oxyura leucocephala*, *Grus leucogeranus*, *Grus nigricollis*, *Vanellus gregarius*, *Numenius tenuirostris*, *Tringa guttifer*, *Eurynorhynchus pygmeus*, are on Appendix I of CMS.

27. The species for which the CAF initiative would have the greatest significance, because they are entirely or almost entirely restricted to the CAF area are *Grus nigricollis*, *Rynchops albicollis*, *Anser indicus*, *Ibidorhyncha struthersii*, *Larus brunnicephalus*. This is also the case of significant populations of other species, such as the central population of *Grus leucogeranus* and the eastern population of *Vanellus gregarius*, both critically endangered, Indian subcontinent populations of the vulnerable *Pelecanus philippensis*, populations of vulnerable *Larus relictus*, of *Glareola nordmannii*, *Charadrius asiaticus*, *Limnodromus semipalmatus*.

28. The desirability of creating an instrument parallel to AEWA for the eastern Palaearctic and its associated subtropical and tropical regions of the Indian subcontinent and south-eastern Asia was first recognised by the second meeting (Bonn, 14-15 March 1991) of the Scientific Council of CMS. The Scientific Council instructed the Secretariat to prepare a draft "agreement on Asian waterfowl". This draft agreement was tabled by the Secretariat at the third meeting of the Scientific Council (Geneva, 9-13 September 1991) as UNEP/CMS/ScC/3.4.4. The document was reviewed, broadly approved, and a Focal Point Councillor (Dr. Moser) and Working Group were established. At the fourth meeting of the Scientific Council (Bonn, 17-19 May, 1993) a revised draft "agreement on the conservation of Asian/Australasian waterfowl" (AAWA), with an associated Action Plan, were again reviewed, and target dates for the negotiating session of what was then envisioned to be an Article IV, paragraph 3 AGREEMENT were envisaged. In particular AAWA documents were to be presented at a Ramsar conference in Japan in June 1993.

29. At COP 4 (Nairobi, June, 1994), agreement strategies were reviewed as part of the preparation of "Convention Development Strategies" (UNEP/CMS/Conf. 4.11). This review was summarised in Resolution 4.4. Progress towards a comprehensive Asian-Australasian AGREEMENT, now dubbed APWA (Asia Pacific Waterfowl Agreement) was reiterated. The strategies thus adopted, in principle, at COP 4 (Conf. 4.11, Resolution 4.4) were revised and confirmed by COP 5 (Geneva, 10-16 April, 1997). They were spelled out in detail in Resolution 5.4, which classified the Asian Flyway AGREEMENT among the "High Priority" developments (the highest category), as Objective 2.3. This Objective 2.3, however, divided for the first time the Asian endeavour into two parts, requesting CMS to "continue to support and provide input to the Asia-Pacific Migratory Waterbird Convention Strategy (1996-2000), which may lead in the future to a more formal multilateral agreement" and to "take an active role in the development of a conservation initiative for migratory waterbirds of the Central Asian-Indian flyway". This had resulted from the observation by COP 5 (point 107 of minutes) that there were too few parties at the time in the Far East to initiate a process and that the "Brisbane Initiative" had the full potential of operating as the needed seed project.

30. From this point on the Central Asian Flyway process followed a path independent from that of the East Asian process. A detailed Action Plan with lists of Range States and of species to be included was prepared and presented to a two-day international workshop organised in Tashkent, Uzbekistan in 2001. This action plan was revised, after further consultation, and discussed and endorsed in principle at a second meeting held in New Delhi, 10-13 June 2005. It was agreed that the Action Plan would be circulated by the CMS Secretariat to the Range states for final review and comment prior to its adoption at future intergovernmental meeting. The Executive Secretary sent the revised Plan to all range states by letter on 20 July 2005. In November 2005, COP 8, through Resolution 8.5, welcomed the finalisation of the Central Asian Flyway Action Plan, urged the Range States to officially adopt the Action Plan through a correspondence procedure, recognized the need to establish an appropriate legal and institutional framework to support the Action Plan's implementation, and appealed to all Range States, other interested States, AEWA, other intergovernmental organisations and interested international non-governmental organisations to generously support these efforts by providing financial and in kind resources.

31. The question of the institutional framework for the Action Plan had been put to the Tashkent and New Delhi meetings but not resolved. CMS COP Resolution 8.5 “notes the Range State participants’ preference at the New Delhi meeting for the Action Plan to be appended to a legally binding instrument, and for this instrument to be the African-Eurasian Waterbirds Agreement (AEWA)”. But this preference is not entirely reflected in the conclusions of the New Delhi meeting⁷, and Resolution 8.5 makes no further recommendation on the form to be taken by the agreement or its implementation tools. Options considered were an Article IV, paragraph 3 AGREEMENT, as originally envisaged, an Article IV, paragraph 4 agreement, or merging with an existing AGREEMENT, namely AEWA.

32. Between the Tashkent and New Delhi meetings, an attempt was made by India at COP 7 (Bonn, 18-24 September, 2001) to correctly re-found the process, in continuity with Resolution 5.4, by introducing a Recommendation 7.5: Central Asian-Indian Waterbird Flyway Initiative. However, questions of semantics and mandate prevented the discussion of the proposal and the recommendation was regrettably withdrawn.

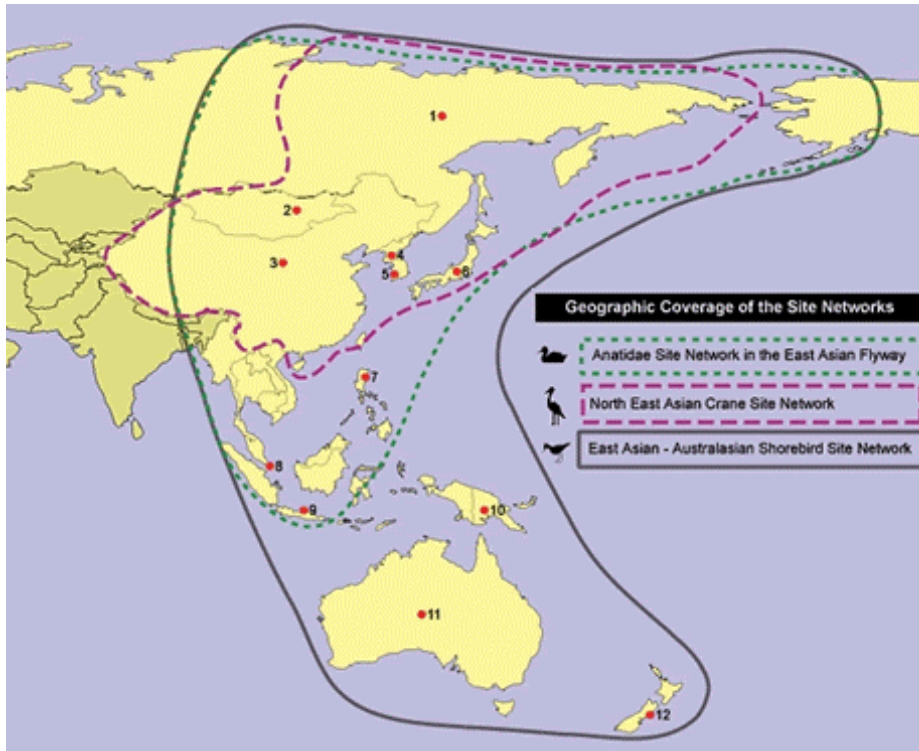
33. As its Action Plan now stands, the CAF Initiative comprises 30 identified Range States, of which 20 are core countries. 10 of these are parties to CMS (Bangladesh, Georgia, Kazakhstan, India, Mongolia, Pakistan, Sri Lanka, Tajikistan, United Kingdom (British Indian Ocean Territory), Uzbekistan) and 3 are also parties to AEWA (United Kingdom, Georgia and Uzbekistan).

34. The Action Plan is well conceived, with adequate provisions for species conservation, including single species action plans, emergency measures, and re-establishment philosophies, as well as for habitat conservation and management, including establishment of a CAF Site Network and rehabilitation and restoration procedures. Management of human activities, including hunting, eco-tourism, research, capacity-building and implementation are also covered. The crucial next step is to bring it into effect via an interim coordination mechanism as request by Res 8.5. However this depends on obtaining additional resources.

35. At the end of 2006, CMS contracted Wetlands International to provide technical and logistical support as part of an interim co-ordination mechanism for the Action Plan, and to help fulfil CMS Resolutions 5.4 and 8.5. Implementing all the required activities, including a website, developing 4 project proposals and obtaining formal endorsement of the Action Plan, are dependant on financial contribution promised from other sources including the Government of India. Further progress report will be given at the Standing Committee meeting on 8-9 November 2007.

⁷ The conclusions of the New Delhi meeting state that “delegations expressing an official view were nearly unanimous in their preference for a legally-binding instrument and, of these, there was near unanimity for the Action Plan to be integrated with the existing African-Eurasian Waterbird Agreement (AEWA)”, but go on to note that “an official view was still awaited from 18 of the Range States concerned, and most of the others had still to confirm their position on a Government level”.

(iii) East Asian-Australasian Flyway (EAAF) Process



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36. As noted above under CAF, early stages in the preparation of this process were not distinct from the CAF process. To recapitulate them briefly, it is the second meeting of the Scientific Council (14-15 March 1991) that requested the preparation of a draft AGREEMENT. This draft agreement was tabled by the Secretariat at the third meeting (Geneva, September 1991, UNEP/CMS/ScC/3.4.4) and a revised version was considered at the fourth meeting (Bonn, May 1993), under the acronym AAWA (Asian/Australasian Waterfowl Agreement). COP 4 (Nairobi, June 1994) listed the Asian AGREEMENT as a strategic priority (Document 4.11, Resolution 4.4). This was confirmed by COP 5 (Geneva, April, 1997), which, however, split the Asian process into two parts, choosing for the easternmost portion to "continue to support and provide in part to the Asia Pacific Migratory Waterbird Conservation Strategy (1996-2000), which may lead in the future to a more formal multilateral agreement". As explicated in point 107 of the proceedings of COP 5, this decision resulted from the observation that there were too few parties, at the time, in the Far East, to initiate a process, and that the "Brisbane Initiative" offered an adequate possibility. The Scientific Councillor in charge of birds, Dr. Moser, explained to the Conference of the Parties that "the Secretariats of CMS and Ramsar had been invited to support and assist in supervising the progress of that initiative", and that he "considered such activity by CMS as fully justified, since there was a definite possibility that, in future, an AGREEMENT for the region could arise under the Convention".

37. The Asia-Pacific Migratory Waterbird Conservation Strategy, 1996-2000 (APMWCS), formally endorsed by Resolution 5.4, was co-ordinated by a 22-member international committee (APMWCC), with representations from 9 governments, 2 convention secretariats -- CMS and Ramsar --, 2 international development agencies, 1 regional agency, 4 NGO's, 3 technical groups and specialist groups. Within this strategy, Action Plans were developed for anatids, shorebirds and cranes. The strategy evolved in 2002 into a Type II Partnership short-titled Partnership for the East Asian - Australasian Flyway (the governments of Australia and Japan, and Wetlands International being the original partners). The CMS Standing Committee, at its 31st Meeting, endorsed the East

Asian-Australasian Flyway Partnership initiative and noted that the Secretariat and 5 parties (Australia, Bangladesh, Mongolia, New Zealand, the Philippines) acknowledged that the Partnership could fulfil the conditions of an agreement under Article IV, paragraph 4.

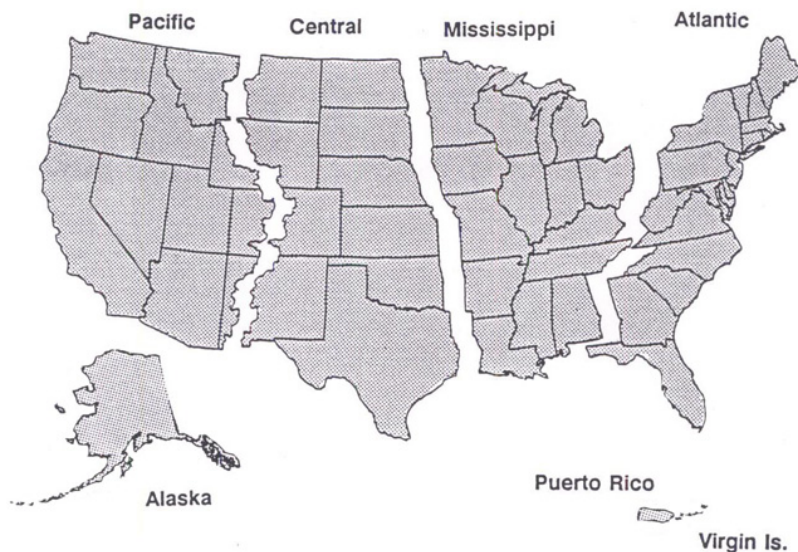
38. As it stands, the East Asian-Australasian Flyway (EAAF) initiative encompasses 22 states. Five of them, Australia, Bangladesh, Mongolia, New Zealand, the Philippines, are CMS Parties.

39. The initiative includes 55 species of divers, grebes, cormorants, shearwaters, storm petrels, pelicans, herons, storks, ibises and spoonbills, anatids, cranes, rails, finfoots, jacanas, oystercatchers, stilts and avocets, pratincoles, plovers, scolopacids, gulls, terns, skimmers, skuas, alcids, of which 21, *Ardeola idae*, *Egretta eulophotes*, *Gorsachius goisagi*, *Ciconia boyciana*, *Platalea minor*, *Anser cygnoides*, *Anser erythropus*, *Anas formosa*, *Polysticta stelleri*, *Grus japonensis*, *Grus leucogeranus*, *Grus monacha*, *Grus nigricollis*, *Grus vipio*, *Tringa guttifer*, *Eurynorhynchus pygmeus*, *Larus relictus*, *Larus saundersi*, *Sterna bernsteini*, *Synthliboramphus wumizusume*, are on Appendix 1 of CMS.

40. The initiative is extremely important for many highly threatened species and their habitats. Indeed, 28 globally threatened species migrate through its area. Endangered or critically endangered species, such as *Ciconia boyciana*, *Nipponia nippon*, *Grus japonensis*, *Grus vipio*, *Sterna bernsteini*, are essentially endemic to the flyway.

(iv) American Flyways Processes

Flyways within the United States



Flyways within the United States. Source: United States Fish and Wildlife Service

41. North, Central, South America and the Caribbean are probably best viewed as a single flyway space, in which contrasting organisational schemes exist. In North America, that is the United States, Canada and Mexico, the space has traditionally been divided into 4 flyways, Atlantic, Mississippi, Central, Pacific, with strong federally-backed administrative structures, and limits drawn to respect, except in the west, the boundaries of US states, though not of Canadian provinces

or Mexican states. The Flyways were established in 1951, although the mode of federal - state partnership in wildlife management that they embody received its first stimulus from the Pittmann-Robertson Act of 1937.

42. The Atlantic Flyway passes through 6 Canadian provinces, 17 US states and 2 US territories. The Mississippi Flyway extends over 2 Canadian Provinces, 15 US states and Yucatan; one Canadian province, Ontario, is split between the two. The Central Flyway includes 3 Canadian Provinces, 10 US states and Eastern Mexico; one Canadian province, Saskatchewan, is shared with the previous flyway. The Pacific Flyway includes Alaska, Hawaii, 4 Canadian Provinces, 11 states of the contiguous United States and Western Mexico; 2 Canadian provinces and 4 US states overlap the two flyways, to respect in this case the physical boundary offered by the Continental Divide.

43. To each Flyway corresponds a Flyway Council, an administrative body that forges co-operation among public wildlife agencies for the purpose of protecting and conserving migratory birds in western North America. The Council is composed of the director or an appointee from the public wildlife agencies in each state and province in the United States, Canada and Mexico. Flyway councils have responsibilities in the annual process of setting migratory bird policy and regulations within the US and conduct and contribute to migratory bird research and management throughout the US, Canada and Mexico. Each Council is assisted by both a Game and Non-game Migratory Bird Technical Committee that provides biological advice to the council. Two representatives from each of the four Flyway Councils make up the National Waterfowl Council. This Council, meeting with representatives of Conservation organisations and of the Fish and Wildlife Service, constitutes the Waterfowl Advisory Committee.

44. The main objective of the North American Flyway structure is to administer migratory bird resources within the US, taking into account the unique biological character and relative number of hunters of each region. It is a very well established structure, with strong traditions, roots and reference value among all North American actors of waterfowl management. Various initiatives, originating in North America, have endeavoured to place the North American Flyways into a broader, hemispheric perspective. Most comprehensive is the Western Hemisphere Migratory Species Initiative (WHMSI) which seeks to forge connections through the Americas for the benefit of all migratory species (birds, marine turtles, marine and terrestrial mammals, fish, invertebrates), which held its first conferences in 2003 and 2006⁸.

45. Also noteworthy is the longer established Western Hemisphere Shorebird Reserve Network (WHSRN). This conservation strategy launched in 1985 now has over 21 million acres of shorebird habitat in its network. The Network currently has 66 sites in 9 countries, from Alaska in the north to Tierra del Fuego in southern South America. WHSRN works to build a system of international sites used by shorebirds throughout their migratory ranges and establish local, regional and international recognition for sites, raising new public awareness and generating conservation funding opportunities.

46. More recently, in January 2007, the Waterbird Conservation Council proposed, on the occasion of a joint meeting with WHSRN, attended by CMS, the development of a “range-wide, integrated approach to waterbird conservation in the Americas”, under the leadership of the Waterbird Conservation Council and possibly named Americas Water Birds Partnership.

⁸ Its objectives include promoting the adoption of best management practices, mitigating primary threats, restoring populations of threatened species, articulating ongoing and planned conservation efforts, communicating and raising awareness of the ecological, economic and cultural importance of migratory species, and increasing the constituency that supports the conservation of migratory species, including through the promotion of local initiatives. The strength of this initiative is broad-based collaboration.

47. From a South American perspective, several initiatives under CMS can be seen as leading to a Flyway agreement. The most directly relevant is Recommendation 7.7, proposed by Chile, Argentina and Peru, as draft recommendation UNEP/CMS/Rec 7.4, and formally adopted by COP 7 (Bonn, 18-24 September 2002), calling on the Range States and the Secretariat to support an "America Pacific Flyway Programme". This recommendation is building, as explicitly stated in the whereas, on previous work by the late Pablo Canevari, former CMS Scientific Councillor for Argentina, former member of the CMS Secretariat. Its objective, as explained in COP 7 Proceedings, paragraphs 361-362, is to lead to a flyway agreement similar to AEWA.

48. Three other CMS instruments can contribute to the establishment of such a flyway agreement originating in South America. One is a Memorandum of Understanding concluded on 21 November 2006, under the auspices of CMS, by Argentina and Chile for the conservation of the continental population of the Ruddy-headed Goose, *Chloephaga rubidiceps*, one of the most threatened intra-South American migrants.

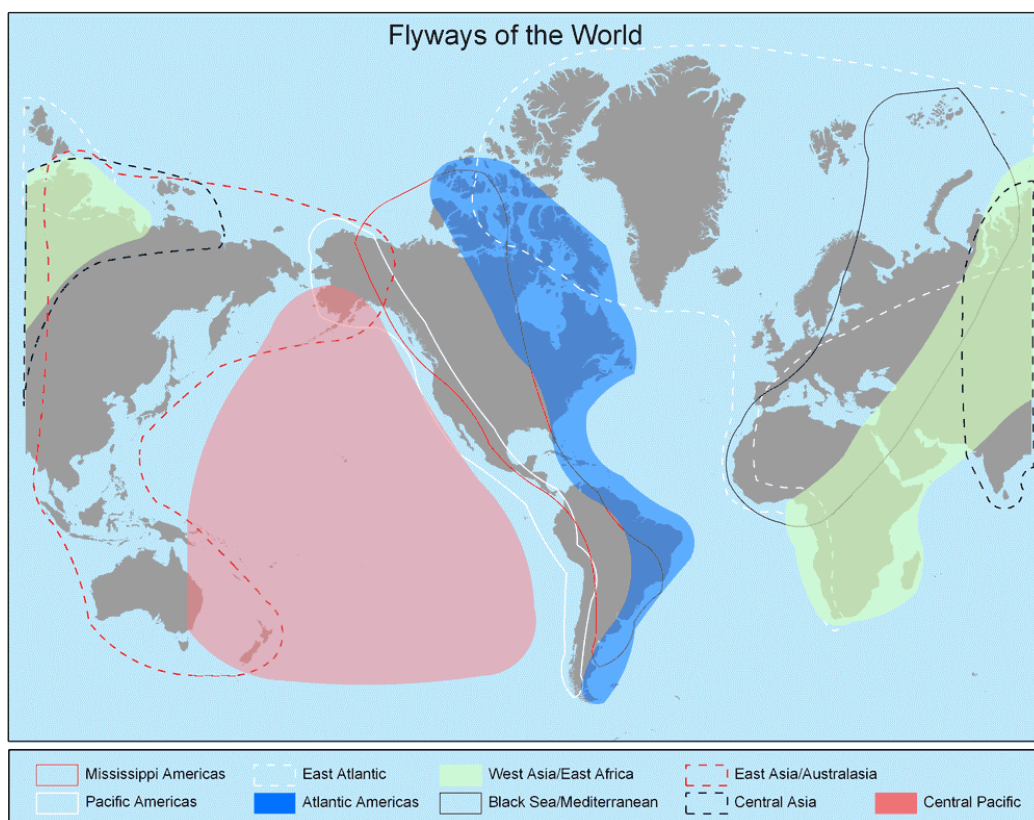
49. A second one is the Article IV, paragraph 4 Agreement prepared between Argentina, Bolivia, Peru and Chile, for the conservation of high Andean flamingos, which concerns species of waterfowl on Appendix I of the Convention.

50. The third such instrument is the Article IV, paragraph 4, agreement concluded between Argentina, Paraguay, Uruguay, Brazil and Bolivia on the conservation of southern South American migratory grassland bird species and their habitats. This agreement, is implemented by a Memorandum of Understanding signed on 26 August 2007. It is not limited to what is traditionally regarded as waterfowl. However, of the 11 species within its scope, 2 are shorebirds migrating from North America (*Numenius borealis* and *Tryngites subruficollis*) and the other 9, all passerines, are to a lesser or greater extent linked to wetlands, a situation that arises from the unique nature of South American grasslands, of which many are floodable. All could thus be relevant to a waterbird flyway agreement.

51. Among potential Range States of an Americas Flyway agreement, CMS has 14 parties, Antigua and Barbados, Argentina, Bolivia, Chile, Costa Rica, Ecuador, France, Honduras, the Netherlands, Panama, Paraguay, Peru, the United Kingdom, Uruguay. They are unequally distributed, with only 1 in North America, France (Saint-Pierre-et-Miquelon), 3 in Central America (Costa Rica, Honduras and Panama), 4 in the Caribbean (Antigua and Barbados, France, the Netherlands and the United Kingdom), and a good representation in South America, 10 in all (Argentina, Bolivia, Chile, Ecuador, France, the Netherlands, Paraguay, Peru, the United Kingdom and Uruguay).

52. Species of waterfowl, strictly speaking, that could be covered by such an Agreement include eight Appendix I species, *Spheniscus humboldtii*, *Phoenicopterus andinus*, *Phoenicopterus jamesii*, *Chloephaga rubidiceps*, *Calidris canutus rufa*, *Numenius borealis*, *Tryngites subruficollis*, *Larus atlanticus*.

(v) Central Pacific Flyway



Source: US Geological Survey

53. The Central Pacific Flyway includes New Zealand, a CMS Party, and hundreds of islands spread over the northern and southern Pacific, many of them belonging to CMS Parties, Australia, Chile, Cook Islands, France, New Zealand, Samoa, United Kingdom. The catchment area for the species that travel the flyway include the east of the Russian Federation and Alaska.

54. Although the Central Pacific Flyway has unique biological characteristics, it does not seem to have given rise to organisational developments that would amount to a flyway agreement. Parts of the flyway are often included in other flyway processes. New Zealand is part of the EAAF process and is indeed reached by species following the Asian continental shelf route, but recent maps of the EAA Flyway all cave in to avoid the Pacific Flyway itself⁹. Similarly, the wording "America Pacific" suggests intentions of including the Central Pacific, but again, maps do not. The high conservation significance of the flyway has, however, generated numerous research and awareness-raising initiatives, in particular by the US Fish and Wildlife Service, the US Geological Survey, Point Reyes Bird Observatory.

55. The most emblematic waterfowl species that travel this flyway are shorebirds that achieve remarkable transoceanic flights. Species of shearwaters and petrels also are included. Among the shorebirds, all of which are on Appendix II of CMS, the flyway is crucial for the Bristle-thighed Curlew, *Numenius tahitiensis*, the Pacific Golden Plover, *Pluvialis fulva*, the Wandering Tattler *Heteroscelus incanus*, and a population of Bar-tailed Godwit, *Limosa lapponica*. Some of these species perform amazing migratory journeys. *Limosa lapponica* makes a 11000 km non-stop flight from Alaska to New Zealand. *Numenius tahitiensis* and *Pluvialis fulva* make 6000 km or more non-

⁹ Maps issued in the framework of the Asia-Pacific Migratory Waterbird Conservation Strategy did include the Pacific Flyway; maps issued in the framework of the EAAF Type II Partnership no longer do.

stop flights both in spring and autumn. This explains the high profile of the species in the Region. Thus, *Numenius tahitiensis* appears on the stamps of at least 6 island states.

Policy proposals

(i) AEWA

56. AEWA is an Article IV, paragraph 3 AGREEMENT. As such, its terms of reference and relation to the mother convention are completely staked out by the Convention and associated Resolutions. The AGREEMENT clearly fulfils its role and has been regarded as a model in the development of other similar instruments. Because AEWA plays such an essential role model it is important that concrete conservation achievements, in particular those related to population trends and secure site networks, are assessed and emphasised.

(ii) CAF

57. The necessity of a CAF instrument has been emphasised for many years. The process is now very near to operational completion, and a consensus Action Plan exists. It appears that indecision over the precise form to be given to the instrument is now the main delaying factor.

58. Of the three options circulated, extension of AEWA, Article IV, paragraph 3 AGREEMENT or Article IV, paragraph 4 agreement, the first, extension of AEWA, detracts from the visibility and clarity of the process and does not seem to bring any benefits. Indeed:

a) The merger would transform the AEWA area into a rather unwieldy ensemble in which the specificity of the two flyways, with their highly distinct tropical areas would be lost.

b) The argument that costs would be reduced by the merge because 50% of the CAF area is already within the AEWA area is not convincing. Indeed, the sub-areas within CAF on which conservation efforts need to be concentrated are the subtropical and tropical area (the Indian subcontinent) and the highly distinctive trans-desert and trans-Himalayan migration routes. Those areas, that should receive 90% of the effort, do not overlap with the AEWA area. The areas of overlap between CAF and AEWA, but equally between CAF and EAAF, which are indeed very substantial in terms of surface, are mostly in the catchment areas from which the birds that follow either flyway might originate. It is easy to imagine that the concerned Range States and the administrative bodies of the two agreements will take all necessary dispositions to avoid duplication of efforts. This will in fact be a useful case of inter-instrumental co-operation. More generally, a solution must be found, so that Range States that overlap several complementary agreements, can join them all at no additional cost, otherwise the problem will arise every time an effort at a coherent world coverage is made.

c) The situations, ecological, political, cultural, climatic, economic, in the main interest sub-areas of the two flyways are entirely different.

However, the AEWA Secretariat has valuable expertise, and needs to play a major role in the institutional arrangements for CAF, also on grounds of economy, and in managing overlaps between the two Agreement areas. We would thus recommend, whatever the institutional option chosen, a joint CMS-AEWA Secretariat to serve it.

59. Between the options paragraph 4 agreement, or paragraph 3 AGREEMENT, the choice is less obvious. However, the fact that geographical overlap areas exist with both AEWA and EAAF, which may require flexibility, the need to finalise as rapidly as possible a process that has been rated as a priority for 16 years, the preference indicated for an "Initiative" by the aborted Recommendation 7.5, all plead in favour of a paragraph 4 agreement¹⁰. This could be formalised

¹⁰ See remarks concerning CMS COP Resolution 8.5 on page 10

through a Memorandum of Understanding or any other legal tool that could be considered appropriate. Whatever the tool chosen, however, the text should include provisions for financing by the parties to the agreement, similar to those that are attached to paragraph 3 AGREEMENTS.

60. Formally, the process can be redirected in orthodox CMS procedure by a Conference of the Parties Resolution of the type:

Convinced of the necessity of developing an instrument for the co-operative conservation of waterbirds that migrate within the Central Asian Flyway,

Aware of the evaluation of this instrument as a Convention priority, first recognised by the second meeting of the Scientific Council of CMS (Bonn, 1991), and embodied in Resolution 4.4 (Nairobi, 1994) and Resolution 5.4 (Geneva, 1997),

Mindful of the proposition of India at COP 7 (Bonn, 2001) to meet this priority by adopting an appropriate Initiative, as an Article IV, paragraph 4 agreement,

Noting with satisfaction the great progress made towards accomplishment of the process, by the drafting of a Concerted Action Plan and its discussion at Range State conferences in Tashkent, 2001 and New Delhi, 2005,

Further noting the encouragement to proceed stated in Resolution 8.5,

61. The Conference of the Parties

Requests the Secretariat, in co-operation with the AEWA Secretariat, the Scientific Council and the Parties that are Range States, to finalise an Article IV, paragraph 4 agreement, to be known as the Central Asian Flyway Initiative,

Urges Parties that are Range States to sign at the earliest possible opportunity the legal instruments that would formalise and institutionalise this agreement,

Encourages Range States that are not parties to CMS to join the agreement.

(iii) **EAAF**

62. The EAAF process towards an Article IV, paragraph 4 agreement is nearly completed. It remains to re-situate it clearly and transparently in a CMS perspective, as was pledged by all parties, when, at COP 5 (1997), the decision was taken to support the Brisbane Initiative instead of pursuing independent preparations¹¹. The right steps were taken by the 31st meeting of the Standing Committee (Bonn, 2006) in its CMS Statement to East Asian-Australasian Flyway Partnership Meeting, but they probably need to be formalised by the Conference of the Parties.

63. Thus, the Conference of the Parties should, via a resolution that repeats the terms of the Standing Committee statement:

(i) endorse the East Asian-Australasian Flyway Partnership initiative and its documents and action plans,

¹¹ Also endorsed by Ramsar CoP 6 in 1996

(ii) recognise that the Initiative is an Article IV, paragraph 4 agreement, by stating that the obligations of the parties, under Article IV, paragraph 4, towards the conservation of species migrating in the EAAF, are met by implementation of the initiative.

64. The resolution could be of the type:

Recalling Resolutions 4.4 and 5.4,

Noting with great satisfaction the progress accomplished in the direction envisioned by these resolutions through the Asia-Pacific Migratory Waterbird Conservation Strategy,

Further noting the recommendations of the thirteenth Standing Committee and several Parties on the subject of the Eastern Asian-Australasian Flyway initiative,

65. The Conference of the Parties

Endorses the Eastern Asian-Australasian Flyway Partnership, its supporting texts and Action Plans,

Recognises that this initiative constitutes an Article IV, paragraph 4 agreement under CMS, in that the obligations of the Parties towards the conservation of the waterfowl species that travel the flyway are met by implementation of the Partnership and its objectives.

(iv) **American Flyways**

66. Considering the seniority, complexity, administrative sophistication, and organic links with US hunting policies and regulations of the North American flyway system, it seems that any effort to extend this flyway system southwards would leave South America, where most of our parties are situated, as a poorly covered appendage, and make alignment on CMS procedures very difficult. It appears best to proceed from the South and establish a flyway agreement in South America, Central America and the Caribbean, as had been envisaged by Recommendation 7.7 and encouraged throughout the discussions that led to its adoption.

67. Because three instruments that would considerably contribute to and easily articulate with such a flyway agreement already exist (Ruddy-headed Goose, Andean Flamingos, Grassland Birds), an Article IV, paragraph 4 agreement would appear to be the most effective formula. It could be formalised by a fourth Memorandum of Understanding.

68. Experience with CAF shows that problems of denomination can be a hindrance. Possibilities for this agreement could include Initiative for the Conservation of Migratory Waterbirds of the South American Flyways (SAFI) or of the Neotropical Flyways (NEOTROFI). Others undoubtedly exist.

69. Once such an agreement exists, its administrators could easily negotiate partnership arrangements with the North American initiatives.

70. The agreement should be established by a resolution of the Conference of the Parties which could be of the type:

Recalling Recommendation 7.7,

Paying tribute to the work accomplished by the late Lic. Pablo Canevari, which was the foundation of this Recommendation,

Conscious of the great importance of South America, Central America and the Caribbean for migratory shorebirds, waterbirds and marsh birds,

Noting with great satisfaction the instruments developed in South America for the conservation of Ruddy-headed Goose, *Chloephaga rubidiceps*, of Andean Flamingos and of Grassland Birds,

Anxious to see these initiatives develop into a complete flyway initiative, as envisioned by Recommendation 7.7,

71. The Conference of the Parties

Requests the Secretariat, in co-operation with the Scientific Council and the Parties that are Range States, to prepare an Article IV, paragraph 4 agreement for the conservation and restoration of shorebirds and wetland birds of the South American, Central American and Caribbean Flyways, with an associated Action Plan. The initiative will take full account of existing South American instruments on Ruddy-headed Goose, Andean Flamingos and Grassland Birds,

Urges Parties that are Range States to sign at the earliest possible opportunity the legal instruments that would formalise and institutionalise this agreement,

Encourages Range States that are not parties to CMS to join the agreement.

(v) **Central Pacific Flyway**

72. The advantages of installing a CMS agreement to cover the Central Pacific Flyway are many. The migration phenomena that take place within its range are unique and spectacular, and protecting migration phenomena is one of the objectives of CMS. The threats that are faced by the birds that travel these migration routes, all of which are on Appendix II of CMS, are very real. Because their migrations are such extreme phenomena, they are particularly sensitive to perturbations of the global environment, such as loss of beaches and other stopover sites through sea-rise.

73. The increasing pressures encountered on these migration routes are a focus of world attention and research. A leading role by CMS in that field would contribute very substantially to raising the world profile of the Convention as an effective and responsive conservation instrument. In addition, such a high visibility agreement in this area would be a powerful tool to promote the Convention among small island states, for many of which these species are highly emblematic.

74. The nature of the area, with its constellation of island states, may justify a paragraph 3, rather than paragraph 4, agreement, provided the slightly greater complexity of the first does not delay the action. In either case, the agreement process could be immediately established by the Conference of the Parties, through a Resolution that could be of the type:

Aware of the exceptional evolutionary and eco-ethological character of the Central Pacific Flyway, as the site of some of the most strenuous migrations on earth,

Noting that the species that travel the Flyway are on Appendix II of CMS,

Conscious of the increasing threats encountered by these species as a result of various components of global change,

Convinced that the existence of an agreement in that region would substantially improve the conservation status of the species concerned,

Further convinced that such an agreement would greatly contribute to demonstrating the effectiveness of the Convention, raising its profile by association with a world-unique phenomenon and augmenting its appeal to island-states, for many of which these species are of great cultural significance,

75. The Conference of the Parties

Requests the Secretariat, in co-operation with the Scientific Council and the Parties that are Range States, to prepare an Article IV, [paragraph 3 AGREEMENT or paragraph 4 agreement] and an Action Plan for the conservation of migratory birds of the Trans-hemispheric Central Pacific Flyway,

Urges Parties that are Range States to join the agreement at the earliest possible opportunity,

Encourages the Secretariat to pursue efforts to bring into the Convention Pacific island states that could benefit from this agreement,

Encourages Range States that are not parties to CMS to support the agreement and contribute to its implementation.

Action requested

The Standing Committee is invited to

- (a) consider the Review;
- (b) request the Secretariat to present it, with any amendments agreed by the committee, to the next meetings of the Scientific Council and the Conference of the Parties and to other bodies including the Secretariats of AEWA and EAAF;
- (c) identify immediate flyway priorities where Range States and the Secretariat should focus their attention in the period 2007-8, prior to the next CoP.

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