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“Flyway Conservation at Work – Review of the Past, Vision for the Future”

**DRAFT INTERNATIONAL IMPLEMENTATION PRIORITIES
FOR THE PERIOD 2009-2012**

Introduction

The present document contains the draft International Implementation Priorities (IIP) for 2009-2012, which is a revised list of activities from the previous IIP 2006-2008.

Following Resolution 3.11 the Technical Committee reviewed the structure of the IIP to enhance their responsiveness to key and emerging issues identified by the international context reviews as specified in paragraph 7.4 of the AEWA Action Plan or other processes. The projects that were implemented over the past triennium or are currently being implemented were removed from the previous IIP 2006-2008. Five new projects were added, three of which deal with tackling threats to waterbirds or their habitats arising from extractive industries, wind energy and other renewable energy source developments; the fourth new project is a research initiative to model changes in the distribution of populations in conditions of changing climate and the fifth project is focused on the training of National Implementation Agencies for AEWA in the Contracting Parties. Indicative budgets of all remaining projects from the previous IIP 2006-2008 were revised.

Large number of projects, which are meant to provide matching funds for the Wings Over Wetlands (WOW) Project / African-Eurasian Flyways GEF Project did not attract funding and thus this significant project remains largely underfunded. The Technical Committee noted this with concern and stressed that the WOW-linked IIP should receive more attention and shall be considered highest priority for funding.

The draft IIP 2009-2012 were approved by the 5th Standing Committee meeting in June 2008 for submission to MOP4.

Action requested from the Meeting of the Parties

The Meeting of the Parties is invited to review and approve the list of International Implementation Priorities for 2009-2012 and to adopt draft Resolution 4.10.

AEWA INTERNATIONAL IMPLEMENTATION PRIORITIES FOR 2009-2012

Introduction

1. The following list of priority activities has been established to assist Contracting Parties, donors and other stakeholders to further the international implementation of the Action Plan of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds during the period 2009-2012.
2. At the first session of the Meeting of the Parties (MOP) to the Agreement, which took place in November 1999 in Cape Town (South Africa), the international implementation priorities (IIP) for 2000-2004 were adopted in Resolution 1.4. Updated IIP for 2003-2007 were adopted with Resolution 2.4 at MOP2 in Bonn (Germany) in September 2002 and IIP for 2006-2008 were approved at MOP3 in Dakar (Senegal) in October 2005. The current proposal for IIP 2009-2012 represents a revised list of activities from the previous IIP 2006-2008.

Implementation Priorities 2006-2008 as the basis

3. In a separate document (AEWA/MOP 4.17) the implementation status of the priorities over the period 2006-2008 is presented, focussing on actions undertaken or in progress within the AEWA framework (more may have been undertaken by individual countries or other agencies in other contexts). Document AEWA/MOP 4.17 shows that although there has been some progress, many priorities have not yet been implemented, particularly projects related to the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project, mainly because of a lack of funding. Priorities that have been or are currently being implemented do not re-appear in the present list of 2009-2012 priorities.

Consultation

4. In order to identify necessary changes and additions that were needed to the existing implementation priorities the IIP list was reviewed and amended by the Technical Committee. The remaining list of unimplemented activities from the previous three IIP lists is still valid and was transferred to IIP 2009-2012. The present list of priorities was approved for submission to MOP4 by the Technical Committee and by the Standing Committee.

Nature of suggested changes

5. The Technical Committee removed all projects from the previous IIP which were implemented over the past triennium or are currently being implemented and added five new projects – No.13: *Guidance on avoidance or mitigation of the impact of extractive industries*, No.14: *Guidance on avoidance or mitigation of impacts of wind energy developments*, No.15: *Evaluation of threats arising from the development of renewable energy sources*, No.27: *Bioclimatic modelling of changes in distribution of populations threatened by climate change* and No.30: *Training for National Implementation Agencies for AEWA*. The indicative budgets of all remaining projects from IIP 2006-2008 were revised.

Order and format of presentation

6. As in the previous versions, the presentation of the priorities in the present document follows the headings of the Action Plan to the Agreement. The number(s) in parentheses after each priority title refer(s) to the relevant paragraph of the Agreement's Action Plan.
7. The order of presentation does not reflect any order of priority.
8. For each priority, an indicative budget and timescale is presented for guidance, along with the types of activity involved. It should be noted that the budgets are only indicative. Detailed project proposals and budgets to meet each priority will be required at a later stage and should be the basis for the final fund-raising.

Discussion

9. The priorities include only those requiring international cooperation, and are not intended to reflect national implementation priorities, which must be determined by each Contracting Party and could include more on-the-ground conservation activities. A number of the proposals underlined the importance of such activities. Five types of international cooperation will be appropriate in addressing these priorities:
 - (a) Exchange/transfer of information;
 - (b) Research, surveys and monitoring;
 - (c) Exchange/transfer of expertise;
 - (d) Financial assistance; and
 - (e) Transboundary drafting and implementation of action plans.

A. Species Conservation

1. **Implement existing international single species action plans (AP 2.2.1, 7.4)**

Prior to the entry into force of the Agreement, a number of international single species action plans relevant to Paragraph 2.2.1 of the Agreement's Action Plan had already been developed (by BirdLife International, Wetlands International and the International Crane Foundation). These include action plans for: *Phalacrocorax pygmeus*, *Pelecanus crispus*, *Botaurus stellaris*, *Branta ruficollis*, *Marmaronetta angustirostris*, *Polysticta stellerii*, *Grus leucogeranus*, *Fulica cristata*, *Numenius tenuirostris*, *Larus audouinii*, and *Sterna dougallii*. (NB: Several of these action plans cover the European part of the range of the species only, and a priority is to extend them to cover their full range within the Agreement area (see next item)). A number of international single species action plans were also adopted by MOP2, MOP3 and MOP4 of AEWA, namely for *Vanellus gregarius*, *Glareola nordmanni*, *Gallinago media*, *Oxyura leucocephala*, *Crex crex*, *Aythya nyroca*, *Geronticus eremita*, *Branta bernicla hrota* (East Canadian High Arctic population), *Phoeniconaias minor*, *Ardeola idae*, *Platalea leucorodia*, *Anser erythropus*, *Oxyura maccoa*, *Limosa limosa*, *Sarothrura ayresi* and a number of action plans are under preparation or are being updated, such as for *Branta bernicla bernicla*. Whilst many of the actions identified for these species will have to be undertaken and financed at national or local level, a budget is required for international coordination and promotion, and to provide small grants for national and local initiatives.

Indicative budget: €60,000 min./species/year (for coordination/grants)
Duration: Annual, ongoing
Activities: Coordination, small grants, evaluation, reporting

2. **Develop new international single species action plans (AP 2.2.1, 7.4)**

New international single species action plans need to be developed as a priority for the populations listed in category 1, column A, Table 1 to the Agreement Action Plan, and for those species listed with an asterisk in column A of Table 1. Production and format of the action plans should follow the recommendations given in the relevant conservation guidelines. As soon as the new action plans are completed for each species, implementation should begin. In view of the large number of action plans to be prepared, it is strongly recommended that the most urgent attention be given to globally threatened species. Furthermore, it is recommended that individual Range States agree to take the lead on development of individual action plans (as an in-kind contribution to the Agreement), in close cooperation with the other Range States of each species (coordination of plan development including workshops, drafting, consultation and publication of each plan). Plans should be submitted to the Technical Committee in draft form for consultation, to ensure harmonization and quality control.

Indicative budget: €50,000 per species for action plan preparation
Duration: 12 months per plan
Activities: Coordination, workshop, planning, publication

B. Habitat Conservation

3. Identify all sites of international importance for AEWA species (AP 3.1.2, 7.4)

A vital piece of information for the conservation of any migratory species is an understanding of the network of key sites required to sustain their populations throughout the year. A large body of information already exists concerning key sites for migratory waterbirds (that is, sites which meet the Ramsar criteria of international importance for waterbirds and Important Bird Areas). This information has largely been collected through the International Waterbird Census of Wetlands International, but also through BirdLife International's Important Bird Areas programme and Endemic Bird Areas programme, wetland inventories (particularly the Directory of Wetlands of the Middle East) and one-off surveys of remote areas. It is proposed to compile from these various existing sources a "matrix" of key sites by species, which will show all known internationally important sites for each species covered by the Agreement. This matrix will be made available in database form through the World Wide Web as a planning, conservation and awareness tool. The successful presentation of the results of this activity depends on the completion of implementation priority number 4.

Indicative budget: €200,000
Duration: 2 years
Activities: Desk study, review, database, web site

Matching funding for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

4. Creating an interactive tool that presents information on important sites for migratory waterbirds (AP 3.1.2, 7.4)

Currently large amounts of data exist in databases on migratory waterbirds (International Waterbird Census) and the sites they depend upon in the AEWA region (Important Bird Areas, Ramsar database). These data reside with the custodians and are not inter-operable at the moment. This hampers the interactive application of these data for flyway conservation purposes. Development of a web-based portal that can integrate data on sites of critical importance to migratory waterbirds from these dispersed sources and that provides the option of interactive data submission through the web, is a priority.

A condition for increasing the 'inter-operability' of essential databases like the International Waterbird Census database and the Important Bird Areas database, but also the Ramsar database, is that they have common geographic references, in the form of digitized boundaries. These do not currently exist to a significant extent and considerable work will need to be done to create these, especially for the International Waterbird Census database. This will be a key activity in creating the tool.

Indicative budget: €250,000
Duration: 2 years
Activities: Gathering of reliable map data, coordination, data input (digitization of boundaries); database adaptation, portal development, data management, maintenance

Matching funding for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

5. **Identify priority areas for further survey work (AP 3.1, 7.4)**

Based on the study undertaken in implementation priority number 3 above, a gap analysis should be undertaken to identify sites/regions where migratory waterbirds would particularly benefit from further surveys. This would be achieved by compiling species-specific maps and overall summary maps, assessing the networks of sites and identifying areas with weak coverage in these networks. In addition species experts and national focal points will be asked to comment on the analyses of these maps and to identify areas of potential importance for migratory waterbirds, but for which survey data are lacking. This would also include identification of areas important for dispersed species (e.g., waders and *Anatidae* during their breeding season) or very large, complex or composite sites. The results will be used both to stimulate additional census work, be it in the form of enhanced national censuses or in the form of “expeditions” in remote areas, as well as to identify countries which would most benefit from a national wetlands inventory programme.

Indicative budget: €115,000
Duration: 4 years
Activities: Desk study, consultation, review, publication, survey proposals

Matching funding for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

6. **Identify priority areas for better protection (AP 3.2, 7.4)**

Based on the study undertaken in implementation priority number 3 above, the key sites maps and matrix will be examined to ascertain the degree of existing protection of each site under both international and national legislation. At the international level, this will be achieved by comparison with existing databases on protected areas, e.g. the Ramsar sites database (maintained by Wetlands International), the Natura 2000/Special Programme of Action databases of the European Commission, and the protected areas database (maintained by the World Conservation Monitoring Centre). At national level, information will also be requested from National Focal Points for the Agreement. The results will be used to assess whether adequate site protection measures are in place to maintain each species under the Agreement in a favourable conservation status. Specific recommendations will be made for species where the network of key sites is thought to be inadequately protected. The study will also list those key sites which are shared between two or more countries, and which require special cooperation measures for effective management.

Indicative budget: €80,000
Duration: 2 years
Activities: Desk study, review, publication, and recommendations

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

7. **Habitat Priorities for waterbirds, particularly in Africa and South-west Asia (AP 3.2, 3.3)**

The BirdLife International project Habitats for Birds in Europe has made an important contribution to defining habitat conservation priorities for birds in Europe. This now needs to be further elaborated and made much more specific for waterbird habitats. Furthermore it needs to be extended to Africa and South-west Asia, where habitat requirements are much less well known. The project should result in a series of habitat action plans containing prioritized recommendations and costed projects for each key habitat type. Severely threatened habitats, and habitats of importance to globally threatened species, should be given priority.

Indicative budget: €250,000
Duration: 3 years

Activities: Desk study, review, workshops, publication, project proposals

8. **Restoration and rehabilitation techniques for waterbird habitats, particularly in Africa (AP 3.3)**

There has been significant loss and degradation of waterbird habitats throughout the Agreement area. Techniques are relatively well developed for the restoration and rehabilitation of wetlands in temperate regions, but are poorly developed or known for wetlands in the tropics. It is therefore proposed to draw together the available information to produce two manuals (one for temperate and one for tropical areas), including information on the sources of available expertise. Close coordination will be necessary with existing work under the Ramsar Convention. Because of the lack of information on restoration of tropical waterbird habitats, a special project will be launched to undertake demonstration restoration measures for a small number of African wetlands. These will also be used as a focus for training activities. Restoration techniques will focus on low-cost, low technology management options.

Indicative budget: €75,000 per manual
€100,000 minimum for each demonstration project
Duration: 18 months for the manuals
Activities: Manuals, demonstration projects, training courses

9. **Conservation programme of migratory bird roosting sites located in the Albertine Rift region (Eastern Africa) (AP 3.2.3, 3.2.4)**

The Albertine Rift region is an important north-south flyway for migratory birds from Europe heading to their wintering places in the southern part of the African Continent. This part of Eastern Africa counts numerous important bird areas (IBAs), which make the Albertine Rift a global biodiversity hotspot. Two important factors weighing on the conservation status of these sites are extremely high human population densities and poverty that is rampant in the Albertine Rift region and neighbouring areas. Due to human pressure, all IBAs of the region face the following problems: encroachment for settlement, agriculture, cattle breeding and grazing, poaching, illegal harvesting, bush fires during the dry season etc., so that actually all these sites are becoming more and more degraded.

To overcome all above-mentioned problems and threats and contribute to poverty alleviation in the region, a conservation programme concerning protected and non-protected IBAs, led essentially by local populations including communities and local and traditional authorities, is intended in the respective countries, i.e. Burundi, Rwanda, Tanzania and Uganda. Identification of strategies and mechanisms for contributing to livelihood improvement of local people and safeguarding the ecosystem qualities of IBAs is expected, as well as efficient collaboration of riparian communities with national and regional conservation authorities.

Indicative budget: € 750,000; four fifths of total amount (€ 650,000) to be sourced from AEW
Duration: 3 years
Activities: Coordination of collaborators, analysis

C. Management of Human Activities

10. Evaluation of waterbird harvests in the Agreement area (AP 4.1, 5.7)

Waterbirds are harvested widely throughout the Agreement area for sport, trade and subsistence (including by indigenous people) and thus have importance for local economies. However, little is known of the scale of such harvesting, particularly in Africa and South-west Asia, nor of the impacts that such harvesting has on waterbird populations. The effects of wounding of waterbirds by hunters remain little known and would be a valuable subject for study. It is therefore proposed to examine the location, scale (by species), methods and impacts of waterbird harvesting throughout the Agreement area, but with a particular focus on poorly known regions. The project will identify areas, methods or species where harvesting may be unsustainable and require intervention, and will feed into the development of future monitoring programmes. The taking of live waterbirds for collections and zoos should be included in this work.

Indicative budget: €230,000 (can be split into 4-5 sub-projects on a regional basis)
Duration: 3 years
Activities: Reviews, research, survey, publications

11. Evaluation of socio-economic impacts of waterbird hunting (AP 4.2.2)

Sport, market and subsistence hunting of waterbirds have the potential to contribute substantially to sustainable rural development throughout the Agreement area. Yet very little is known of the socio-economic impacts of such forms of hunting in different regions and its potential contribution to species and habitat conservation. This project will build on implementation priority number 10 above, and will research the socio-economic benefits of different types of waterbird hunting in different parts of the Agreement area (e.g. subsistence hunting in arctic/sub-arctic areas (including by indigenous populations), tourist or market hunting in Africa, and sport hunting in Europe). Significant work has been undertaken on this subject in North America, and should provide a useful background to the study. The results of the case studies will be presented to a workshop and published to advise future sustainable rural development initiatives.

Indicative budget: €175,000
Duration: 2.5 years
Activities: Research, socio-economic surveys, workshop, publication

12. Evaluation of waterbirds as agricultural pests in Africa (AP 4.3.2, 4.3.3)

A number of migratory waterbird species covered by the Agreement are known to consume and potentially damage agricultural crops or commercial fish stocks (including those at fish-farms). Although the subject is relatively well studied in Europe, where geese, cormorants and herons are implicated, the situation in Africa is less well known. Here, populations of ducks and waders are reported as pests of rice and other crops. This project will work with the Food and Agriculture Organization of the United Nations to review the extent, species involved and location of this problem. The project will involve a review of existing knowledge, and a workshop of experts, culminating in a review publication and recommendations on crop protection measures. The need to develop specific action plans for any of the species concerned will also be considered.

Indicative budget: €125,000
Duration: 2 years
Activities: Review, workshop, publication

13. **Developing guidance to avoid or mitigate the impacts of extractive industries on habitats of importance for waterbirds (AP 4.3.1)**¹

A major increase in market prices of metals and other geological commodities has led to a recent upsurge of activity by extractive industries. This has had, or has the potential to have, major impacts on habitats, particularly wetlands, of international importance for waterbirds.

A three-phase project is proposed which will lead to technical guidance for Contracting Parties and others on addressing these issues.

The first phase will undertake a desk study to identify sites/areas, especially wetlands, likely to be vulnerable to the impacts of the extraction of minerals and other geological products. This will aim to identify hotspots for mineral resources, and overlay that with information on site/wetland distributions. Mining and geological information will be obtained from one of several mining intelligence groups.

A second phase would be to review existing technical guidance for the exploration, production, closure and post-closure management of mines, and the suitability of that guidance for managing impacts on habitats, particularly wetlands, and their associated waterbird and other faunas.

A final phase would be to review emerging mining technologies and extraction techniques likely to be in use in the near future and the possible implications of these for habitats, especially wetlands, and their associated waterbirds.

Indicative budget:	€185,000
Duration:	2 years
Activities:	Desk study, conservation guidance, report on future implications

14. **Developing guidance to avoid or mitigate the impacts of wind energy developments on waterbirds and their habitats (AP 4.3.1)**²

Tackling climate change requires the employment of non-polluting renewable energy sources, such as wind. The wind energy sector has been receiving strong support and a number of countries within the AEW region are champions in the use of wind energy. It is projected that wind energy development will accelerate and expand geographically in future.

Besides its clear advantages for the environment, however, the wind energy may pose threat to biodiversity in terrestrial and marine ecosystems. With regard to waterbirds the potential hazards may be summarized as following:

- disturbance leading to displacement or exclusion, including barriers to movement;
- collision mortality;
- loss of, or damage to, habitat resulting from wind turbines and associated infrastructure.

Despite a number of resolutions and recommendations approved by the governing bodies of other MEAs, wind farms are still being built or planned in biodiversity sensitive areas, especially migration corridors for birds. Therefore under this project it is suggested to produce a desk study summarising the knowledge on the potential impacts of wind farms on migratory waterbirds and their habitats within the Agreement area, outstanding cases, existing regulations. This desk study will serve as a basis for conservation guidelines on avoidance or mitigation of wind farm development.

¹ This is a new international implementation priority added by MOP4.

² This is a new international implementation priority added by MOP4.

Indicative budget: €75,000
Duration: 1 year
Activities: Desk study, conservation guidelines

15. **Evaluation of threats to waterbirds and their habitats emerging from the development of renewable energy sources (AP 4.3.1)**³

Besides wind a number of other renewable energy sources are being promoted as alleviation to the climate change, amongst them biofuels, solar and hydro-power. While having positive role, some of them, notably biofuels, are being criticized for the lack of potential to bring real difference and/or for creating parallel problems. The hazards to waterbirds and their habitats posed by the development of renewable energy sources are not yet clearly and thoroughly described and understood. Therefore under this project a desk study will summarise facts and knowledge on the potential impacts of the development of renewable sources of energy (other than wind farms) on waterbirds and their habitats within the Agreement area.

Indicative budget: €120,000
Duration: 2 years
Activities: Desk study

³ This is a new international implementation priority added by MOP4.

D. RESEARCH AND MONITORING

16. Survey work in poorly-known areas (AP 5.1)

There remain many gaps in knowledge of the importance and utilization of even some very large wetlands by migratory waterbirds, particularly in Africa and South-West Asia. Based on existing knowledge of gaps, and also the systematic gap analysis to be undertaken in implementation priority number 6 above, it is recommended that grants (and expertise, if necessary) be made available for locally organized surveys or expeditions, to assess the importance of lesser known areas. Such surveys, if conducted by visiting teams of experts, should involve a high component of training (and equipping) of local experts, and should result in a summary publication. These activities will be closely linked to those required for the next priority (17).

Indicative budget: €25,000 per survey (average)
Duration: Ongoing
Activities: Field survey, training, publication.

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

17. International Waterbird Census – special gap-filling survey (AP 5.2, 5.3, 7.4)

The International Waterbird Census, organized by Wetlands International, and conducted in most countries within the Agreement area, is the primary tool for monitoring the conservation status of the populations covered by AEWA. It is based on annual non-breeding season surveys at a sample of sites, by an extensive network of mainly volunteer counters. As the census is conducted on a sample of sites only, it is necessary to try periodically to achieve a maximum coverage through a full census of as many sites as possible. This will enable better coverage of poorly known species and sites, better population estimates and calibration of population indices.

Wetlands International conducted a pilot project on prioritizing and costing the work for such a gap-filling census. The actual gap-filling has not yet been planned because it depends on the availability of (substantial) funds. This approach will currently only apply to the Western Palearctic and South-West Asia, since the census networks in Africa are insufficiently developed to enable the additional effort required for this extra survey work. Extended coverage in some countries may best be achieved through international field surveys as outlined under implementation priority number 16 above. The project will provide the additional coordination, support, small grants and awareness materials necessary to ensure a successful outcome.

Indicative budget: €635,000 (including 6 regional workshops (€ 30,000 each), planning/coordination (€275,000), analysis/report writing (€230,000))
Plus 20-50 surveys, €15-25,000 each.
Duration: 5 years including planning and report writing
Activities: Planning, regional workshops, coordination, field surveys, publications

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

18. Publication of flyway atlases for different groups of species (AP 5.4, 7.4)

A first flyway atlas has been produced for Anatidae (1996). The Wader Flyway Atlas is under development and its publication is expected soon. These initiatives have been received with great enthusiasm. They provide the basis for the flyway approach to the conservation of these species. The Anatidae atlas needs a second edition. Similarly, the conservation of other species groups of migratory waterbirds would benefit from flyway atlases being produced for them. This can be done species group by species group, or in an integrated publication. Ideally the use of ringing recoveries should be integrated into these flyway population atlases.

Indicative budget: Depending on the number of species in the species group, up to €250,000 (excluding the integration of ringing recovery data) per species group atlas.
Duration: 3 years
Activities: Coordination, review, data analysis, drafting and editing text, production of graphs, publication

19. **Ringling recoveries in atlases (AP 5.4)**

Ringling recoveries provide the physical evidence that an individual bird has traveled from one point to another. Since in many cases the flyway population to which an individual belongs is known, this contributes greatly to visualizing and understanding the concept and delimitation of flyway populations. Mapping ringling recoveries and providing background statistics with them, are a very valuable addition to census information presented in flyway atlases. Ideally therefore, the publication of these data should be combined. For gulls, terns, herons, ibises, storks and *Rallidae* (the species mentioned in implementation priority 18), the integration of these data into one publication is still feasible. For *Anatidae* another solution will have to be found. Regarding waders, when finalizing the atlas it would be worthwhile attempting to integrate these data into the work that has already been done.

Indicative budget: € 125,000 (aiming at inclusion in flyway atlases (see priority 18), therefore excluding stand alone publication)
Duration: 18 months
Activities: Coordination, data analysis, review, wide consultation, graphical presentation, text drafting, editing

20. **Coordination of waterbird ringling schemes, particularly in Africa. (AP 5.4)**

Ringling studies have contributed greatly to our current understanding of waterbird migration and ecology. Whereas in Europe the European Union for Bird Ringling has provided international coordination between the various national ringling schemes, no equivalent exists for Africa or South-west Asia. It is proposed to support the development of an African ringling scheme (AFRING), specifically for studies of migratory waterbirds. This will initially be through a coordinated study of intra-African migratory waterbirds. The project will have fixed goals and a five-year timetable.

Indicative budget: €60,000 per annum
Duration: Ongoing. Three annual phases out of the five-year timetable were carried out so far
Activities: Coordination, ringling programmes, review, publication

21. **Guidelines on the use and best application of satellite tracking and other telemetric tracking for migratory waterbirds (AP 5.4)**

The development of satellite tracking technology for studying animal migrations has advanced substantially in recent years, and has revolutionized our understanding of the migration ecology of some species. The technique has revealed that certain types of information can be gathered with substantially higher quality and cost-effectiveness than from traditional ringling schemes. However, the technique has only been successfully applied to larger species, and there remain important questions regarding animal welfare. The Scientific Council of CMS is coordinating work on this subject as a whole, but it is proposed to produce conservation guidelines specifically on the use of satellite tracking for migratory waterbirds. In addition, case studies showing the advantages and drawbacks of the technique should be listed, and an assessment of its value in studying globally threatened species should be made.

Satellite telemetry can be used to complement other methods of tracking bird populations so as to obtain information on use of sites along migratory routes by birds during migration. Having this strategic knowledge in hand – a listing of high priority species and/or populations with unknown or uncertain migratory routes, breeding, staging and/or wintering areas – could guide future implementation of telemetry studies towards answering questions of higher conservation importance. Compilation of a peer-reviewed overview and guidelines would be valuable.

Indicative budget: €60,000
 Duration: 1 year
 Activities: Desk study, consultation, guidelines on:
 a) best practice use of satellite tracking technology for studying waterbird migration; and
 b) a strategic overview of those species and flyways where this technology is likely to enhance existing knowledge of key sites and migration systems most effectively.

22. **Actions for the conservation of colonial waterbirds (AP 3.1.2, 3.2, 4.2, 5)**

A large proportion of the migratory waterbird species covered by the Agreement nest in colonies (particularly of the families: *Pelecanidae*, *Phalacrocoracidae*, *Ardeidae*, *Ciconiidae*, *Threskiornithidae*, *Phoenicopteridae*, *Laridae*, *Sternidae*). For different species, coloniality may be an adaptation for avoidance of predators and for efficient exploitation of food resources. One result of this behavior is that a very significant proportion of the population of a species may be breeding at one or a few localities at one time. This makes the species particularly vulnerable to habitat change, taking (of eggs, young or adults), disturbance or emergency situations at such sites. On the positive side, waterbird colonies provide excellent opportunities for ecotourism, research and monitoring, and can be relatively easily protected.

In order to provide guidance to Contracting Parties, it is recommended that two activities be undertaken: i) (a) preparation of conservation guidelines on national actions to be undertaken for colonial waterbirds (establishment of a sites register, protection, monitoring, ecotourism and avoidance of disturbance, restoration and creation of breeding sites etc.); (b) a desk study to explore options, priorities and costing for coordinated international monitoring of colonial waterbirds during the breeding season, since many of these species are not adequately covered by the existing International Waterbird Census, which is based on non-breeding season surveys.

Indicative budget: €25,000 (monitoring study)
 Duration: Ongoing, conservation guidelines have been contracted in 2005
 Activities: Review, analysis, consultation, publications

23. **Causes of population changes in migratory waterbirds (AP 5.5)**

In order to address effectively the conservation of migratory waterbirds, we need to know more about the major threats and mechanisms that drive changes in their population sizes. Many of the species action plans identify these, species by species. By compiling the information from sources such as these into a comprehensive overview of “causes of population change”, it will become more feasible to address some of these causes horizontally, rather than on a species by species basis.

Indicative budget: €40,000
 Duration: 1 year
 Activities: Desk study, consultation, drafting text, publication

24. **Compiling flyway information (in digital format) for use in conjunction with existing waterbird count data and site information (AP 5.4)**

For *Anatidae*, an atlas has been produced compiling available flyway information. For waders this is under way, but needs further work. For other migratory waterbird species this still needs to be taken up. The information from such sources needs to be stored in databases (including GIS representation of flyway delimitations), for use in conjunction with census and site information. This will involve expert use of the databases and consultation of expert groups (specialist groups). This should also result in project proposals for further research to fill gaps in existing knowledge.

Indicative budget: €150,000
Duration: 2 years
Activities: Database analysis, information compilation, desk study, review, expert consultation, and coordination

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

25. **The use of wetland sites by migratory waterbirds (AP 5.6)**

Throughout their annual cycle, migratory waterbirds depend on a variety of wetland sites. Given the concentration of so many individual waterbirds in these sites, they are of vital importance for their survival. We therefore look at these places as a network of critical sites. But can the role of any of these sites be taken over by another site if something goes wrong? And what if such a change happens in the far north of the “network”, how will this affect the role of the sites further along the migratory route? In order to be able to assess this, we need to gather more knowledge about the way birds use these sites, in relation to environmental parameters, and about the flexibility in site use by individual birds. What are the basic ecological requirements of the migratory waterbird species with respect to these sites. This may again differ between the different life-cycle stages (e.g., breeding, moulting, migration, wintering, displaying). The understanding of the importance of sites for the survival and conservation of species should be strongly improved by a study into these factors. There is a strong link to priority 8.

Indicative budget: €40,000
Duration: 1 year
Activities: Desk study, consultation, publication

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

26. **Migratory waterbirds as indicators**

Migratory waterbirds react to parameters in and around wetland sites in a way that opens the possibility to use them as indicators of the status of these wetlands and the pressures on them. This is highly relevant to policy makers. By constructing powerful indicators, decisions about measures to be taken (affecting nature conservation) can be facilitated. Currently many of the causal links between numbers of migratory waterbirds and wetland parameters are insufficiently known, and the state of knowledge needs to be improved.

Indicative budget: €40,000
Duration: 1 year
Activities: Desk study, consultation, publication

27. **Bioclimatic modeling of changes in distribution of species and populations critically and highly threatened by climate change under the different climatic scenarios**⁴

To further investigate changes in distribution of species and populations critically and highly threatened by climate change (as described in document AEWA/MOP 4.27) it is suggested to apply a bioclimatic envelope approach (Beaumont *et al.* 2007), which has been widely tested in Europe, as well as on the global scale. In spite of some limitations of this approach (Maclean *et al.* 2007), there is hardly any other alternative methodology to rapidly quantify effects of the future climate change on particular species/populations. To build up and run these models on the species-by-species (population) basis, detailed and, preferably up-to-date, occurrence data for each of the species (or the prey species they ecologically depend on) have to be collected from a variety of sources. Further on, the available climate change scenarios should be applied to the occurrence datasets and possible changes in the distribution ranges (breeding, staging and wintering) investigated. Detailed terms of reference for the modeling expert can be prepared by the Technical Committee. Results of this study will help to implement measures identified in Resolution 4.15 “The effects of climate change on migratory waterbirds”.

Indicative budget: €100,000
Duration: 2 years
Activities: Desk study

E. EDUCATION AND INFORMATION

28. **Improving survey and monitoring capacity for migratory waterbirds (AP 6.2)**

Enhancing survey and monitoring capacity for migratory waterbirds and the sites they use through training and by providing equipment. Analysis of the geographic coverage and the quality of the network for data gathering on waterbirds and the sites they use will show that sub-regions within the AEWA region can be identified where capacity is lacking or limiting the data quality. Depending on the need of the specific sub-region, capacity-building and field survey work will be performed to enhance the quality of the data. Twinning is a potential implementation mechanism whereby countries with higher capacity adopt countries with less well-developed schemes. In addition, in areas where the economic conditions prevent observers buying their own essential optical equipment, technical resources to support the network of volunteers will be provided.

Indicative budget: Based on implementation by experts from the region per country: €40,000 in the first year, €20,000 in the second year
Duration: 5 years in total, 2-3 years per country, depending on the needs
Activities: Fieldwork, training, supply of equipment (first year)

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

⁴ This is a new international implementation priority added by MOP4.

29. **Regional training programmes in Africa for implementation of the Agreement (AP 6.1, 6.2)**
In numerous forums training has been identified as one of the key elements for advancing the implementation of the Agreement, particularly in Africa. Access to modern planning, assessment and management techniques relevant to local situations will greatly help under-resourced agencies use their resources most effectively. The regional training programmes in West Africa, currently organized by Wetlands International and the Office National de la Chasse et de la Faune Sauvage (France) provide a useful model from which new programmes can be developed. It is strongly recommended that this type of training programme be extended throughout Africa. Cost-effectiveness will be greatest if courses are based on groups of neighbouring countries, and if local expertise can be used for the majority of the training. Courses should target specific groups of professionals and include the following subjects, as appropriate: a general introduction to the work of the Agreement; waterbird identification, assessment and monitoring; waterbird ecology; habitat management for waterbirds; managing human activities; and public awareness.

Indicative budget: €175,000 per year, per regional programme
Duration: 5 years
Activities: Coordination, training courses, materials, follow-up

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

30. **Training programme for National Implementation Agencies for AEWA in the Contracting Parties (AP 6.1, 6.2)⁵**

From the international reviews compiled during the previous triennium e.g. on hunting and trade legislation, it became evident that implementation of the Agreement by Contracting Parties is still insufficient. It has been suggested that more assistance is necessary for Parties to guide them in the implementation of AEWA and more precisely in the requirements arising from the accession to the Agreement. Therefore in addition to the regional training to be provided to target groups of professionals in Africa, as described in the previous project above, specific training for the National Implementation Agencies for AEWA in the Contracting Parties across the Agreement area is to be organised. This training will provide insight, amongst others, into the interpretation of provisions laid down in the Agreement and/or the Action Plan, the planning and implementation of the Agreement at national level, coordination of implementation, national reporting, roles and participation in the official meetings of the Agreement. This training could be linked to the regional training in Africa and further expanded to Eurasia. An additional specific training module has to be developed to pair with the ones developed under the WOW project.

Indicative budget: €20,000 for the development of the training module
€75,000 for training per region (Africa and Eurasia)
Duration: 3 years
Activities: Training module development, coordination, training courses, materials, follow-up

31. **Field guide for Central Asia and adjacent countries (AP 6.1, 6.2)**

In order to build sustainable monitoring capacity, the availability of a good field identification guide is essential. For Central Asia and adjacent areas like Siberia and other Range States of the Central Asian-South Asian Flyway such a guide, in the appropriate language (Russian) and targeted at the relevant species is not currently available. The knowledge, the capacity and even the artwork exist to make such a guide, and a guide can be realized in a relatively short time span, if financial resources become available for editing and publishing.

⁵ This is a new international implementation priority added by MOP4.

Indicative budget: €60,000
Duration: 1 year
Activities: Text drafting, publication (in Russian)

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

32. **Training course on migratory waterfowl conservation and waterfowl habitat management (AP 6.1)**

It is proposed to organize two-week training courses for 10-15 representatives of institutions and organisations of certain regions (e.g. CIS countries).

The general goals of the course are to provide participants with knowledge and skills necessary for the organisation and implementation of measures for migratory waterfowl conservation in breeding and resting areas, waterfowl habitat management, waterfowl and habitat sustainable use (hunting, ecotourism), as well as to identify and develop common approaches for conservation and restoration of shared waterfowl habitats, to identify and develop common approaches for taking management actions on waterfowl on common migratory routes, and to identify and develop common information materials and mechanisms for public awareness with regard to migratory waterfowl conservation and waterfowl habitat protection.

The course will work with regional groups, because training needs and social and cultural background are most likely to be similar within these groups. For example, the CIS are different in size and population, but have a similar legacy in the wake of the collapse of the USSR: economies in transition and lack of funds for nature conservation.

The course is expected to contribute to an increase among participants in knowledge necessary for the conservation of migratory waterfowl and management of their habitats, establishment of closer cooperation among the different experts of different countries and institutions, and the strengthening of regional cooperation.

Indicative budget: €35,000 per group (average)
Duration: 1 year
Activities: Training course

33. **Publication of waterbird monitoring manuals (AP 6.2)**

Effective monitoring of migratory waterbirds is essential for the functioning of the Agreement, and it is vital that comparable data are collected between sites, regions and years. The production of manuals to help train coordinators and counters will be an important tool for continuous improvement of the monitoring networks. The manuals will be particularly valuable for the relatively new counting networks in Africa and South-West Asia, but will also benefit European counters. It will be necessary to publish the manual(s) in a number of languages. Furthermore, it may be necessary to have versions appropriate to the situation in different parts of the Agreement area. Aerial survey methods for remote, inaccessible and offshore areas throughout the Agreement area should not be neglected. Preliminary proposals are for one manual for the Western Palearctic and South-West Asia, and one for Africa.

Indicative budget: €45,000 per manual in one language
€25,000 for translation/printing/mailling other languages
Duration: 18 months
Activities: Drafting, consultation, publication, free distribution

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

34. **Establish a clearing house for training materials for the Agreement (AP 6.2)**

A wealth of training materials relevant to the implementation of the Agreement already exists both within the Agreement area, and also in other parts of the world. The establishment of an internet-based clearing house for such training materials will greatly assist Parties in meeting the obligations of the Agreement. It is suggested that the Agreement Secretariat should establish a contract with an appropriate international organization to establish and maintain this clearinghouse.

Indicative budget: €40,000 to establish clearinghouse
€15,000 per annum for maintenance
Duration: 5 years
Activities: Collection of materials, web site development, dissemination

35. **Regional workshops for the promotion of the Agreement (AP 6.3)**

In order to give the development of the Agreement a strong start throughout the Agreement area, a number of promotional workshops should be arranged for specific subregions. The priority regions identified so far would be, in order: (i) the Central Asian Republics; (ii) the Arab states. These workshops should aim to gather appropriate decision makers, research biologists, conservation professionals and donors, in order to raise awareness of the Agreement, promote membership, debate regional priorities, stimulate international cooperation and develop project initiatives. Where possible, the workshops should be linked with those of other relevant CMS or partner-Convention/organization activities, so as to increase synergy and maximize cost-effectiveness.

Indicative budget: €75,000 per regional workshop
Duration: 1 per year
Activities: Regional workshop and follow-up

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.

36. **Communicating the importance of a network of critical sites for migratory waterbirds (AP 6.3)**

The network of critical sites that will be developed as an interactive and dynamic tool via a web portal, will gain enormously in power and practical applicability if it is published as a convincing booklet. It will serve a wider audience than the web portal, such as policy makers, who are unlikely to have the time to access the information on the web, and people in areas where internet access is underdeveloped. Having a booklet to browse through will be an effective means of communicating the network of critical sites. In addition, awareness-raising is needed, using the network of critical site information to make brochures, posters, flyers and to undertake other public relations activities, including organization of a session at the Global Flyway Conference in 2004.

Indicative budget: €120,000
Duration: 1 year
Activities: Editing, layout, printing, publishing, distribution, coordination, public relations activities

Matching fund for the Wings Over Wetlands Project (WOW) / African-Eurasian Flyways GEF project.