

East Asian - Australasian Flyway

Partnership

Concepts Project

Funded by: The Australian Government Department of
the Environment, Water, Heritage and the Arts

Compiled by: Wetlands International – China

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Summary

This list of project concepts has been produced through a collaborative effort from the East Asian-Australasian Flyway Partnership. The project concepts reflect future projects which the Partnership organisations have deemed priority areas for them, in order to meet the outcomes of the Flyway Implementation Strategy. In order for each concept to be included it was required to meet at least one of the Implementation Strategies Outcomes (Appendix I). Many concepts are broad ranging in the outcomes they meet, often being applicable to more than one outcome (Table 1). This is a positive sign, with Partners recognising that projects need to cover a broad range of outcomes in order to be relevant to the goals of the Flyway.

The concepts cover a wide range of ideas from specific site and species related projects, to broad flyway level concepts dealing with impacts of climate change and poverty alleviation. While many of the listed concepts present an idea specific to a particular area or species, the ideology or methodology behind each concept can be applied on a much wider scope. The ideas can, with a little work, be applicable to a greater number of species or a greater spatial range.

This project was set up with the dual aims of garnering collaboration of the Flyway Partners and of developing a set of project concepts that, if implemented, would assist in achieving the outcomes identified by the Partnership as a whole. One strength of the partnership is its inclusive nature – and the freedom of partners to develop additional ideas and opportunities that would help fulfil the objectives for migratory waterbird conservation in the East Asia – Australasian Region. This specific set of concepts creates a strong foundation for the fund raising and implementation efforts of the partnership.

Contents

Introduction	4
Methods	4
African Eurasian Waterbird Agreement (AEWA) Concepts Project.....	5
<u>Concepts</u>	<u>9</u>
Wetland and waterbird conservation through poverty alleviation	8
Sustainable Management of Marine Sites for Future Generations.....	9
Sustaining livelihoods for the conservation of migratory waterbirds and their habitats in the East Asian-Australasian Flyway	10
Integrated wetland and waterbird management framework	11
A Flyway Education Program Featuring Cranes, Wetlands and Healthy Communities.....	12
E-newsletter for the East Asian – Australasian Flyway Partnership.....	13
International Collaboration Program in Monitoring Sites 1000 for Analyzing Waterbird Migration in Asia	14
Assessment of climate change risks at selected wetland sites across the East Asian – Australasian Flyway and proposals for adaptation responses	15
A program for the conservation of migratory waterbirds and sustainable use of tidal mudflats in the Yellow Sea.....	17
Establishment of a program for effective waterbird and habitat data collection, management and accessibility for EAAF partners	18
Collaborative, landscape-level investigations of migratory waterbird habitat at Poyang Lake	18
Rapid ecological assessment surveys in the coastal wetlands of Thailand	20
Establishment of the Migratory Birds Monitoring Network in the Mekong Delta	21
Migration study, ecological monitoring and network development for conservation of the Black-necked Crane	22
A Flyway Approach to Conservation of the Red-crowned Crane	23
Appendix	
I.....	25

Introduction

The East Asian - Australian Flyway Partnership was launched in late 2006 to address the growing level of habitat loss and degradation of sites used by migratory waterbirds. The Flyway Partnership has developed an Implementation Strategy that identifies five objectives and under these, 14 outcomes (Appendix I). The Implementation Strategy is essential to achieving the goals of the Flyway and the outcomes within this Strategy have served as the basis for developing this concepts project. The Concept Project is an innovative way to create a collaborative environment within the Flyway and determine the work which the Partners deem important to achieving the goals of the Flyway Partnership. The concepts are short, one page summaries of possible project work that can occur across the Flyway or focus on a particular species, wetland habitat or region. This Concept Project was funded by the Australian Government Department of the Environment, Water, Heritage and the Arts.

The development of project concepts have been completed in other regions globally, most noticeably the African Eurasian Waterbird Agreement group. The concepts, or leaflets, produced by this group were used as a guide for the development of this document. Differences in methodology were noticed and this is discussed in a later section.

On the 6th May 2008, Wetlands International circulated an email to all NGO Partners recommending a collaborative approach to the Concept Project. In the email NGO Partners were encouraged to volunteer to take on the coordination role. Responses were received from the Australasian Wader Studies Group, WWF and ICF, The Wetlands International – Japan Office. These organizations were keen to collaborate but were unable to take the lead role. Based on this feedback, Wetlands International – China Office agreed to take on the coordination role.

The following Partners contributed to the Project:

- Wetlands International – China
- Wetlands International – Oceania
- Wetlands International – Japan
- Wetlands International – Thailand
- Wetlands International – Indonesia
- Australasian Wader Studies Group
- International Crane Foundation
- Australian Government Department of the Environment, Water, Heritage and the Arts
- Wildlife Conservation Society – Indonesia and Vietnam
- Birdlife International
- WWF - Vietnam

Methods

A Google Group was established in collaboration with the Partnership Secretariat to provide the forum for collaboration on concept development and discussion. Wetlands International – China then invited each of the NGO Partners to be a part of the concept development and review. Some provisions have been made in the budget to fund some of the time committed by the NGO Partners to the project.

The initial approach involved the use of the Outcome Statements in the Implementation Strategy to provide the framework for concept development. The aim was to develop at least one concept to address each Outcome (Table 1). Many comments and proposals were received and collated into a Draft document. All Outcomes have been addressed, excluding Outcome 11 – *Knowledge of the Potential role of Migratory waterbirds in disease transmission, especially Avian Influenza*. The Draft document was then posted on the Google Group and distributed by the Flyway Secretariat to the Partners for comment. Comments have been collated and the final document developed.

The African - Eurasian Waterbird Agreement (AEWA) group had developed a similar program for concept development. The group was contacted and the methods utilised in the development of their concepts was discussed. A synopsis of the methods is included in the following section. A comparison of the two methods is also provided.

African Eurasian Waterbird Agreement (AEWA) Concepts Project

How the concepts were developed

The leaflets are produced to correspond with the Meeting of Parties (MOP) held every three years. Preceding the MOP, member countries and NGO partners are invited to submit project ideas for inclusion in the document titled International Implementation Priorities. Project ideas are scrutinised against a set criteria before inclusion in the document. This document is reviewed by the Technical Committee and later a Standing Committee which then approves the document for submission to the MOP. At the MOP it is then adopted by Resolution and becomes the basis for work in the following triennium.

The developed leaflets contain between 30-40 "projects" with a range of topics, duration and budgets, published in two languages. This system makes the projects accessible to a range of funding bodies and organisations.

The end product has a number of projects, each under a topic category such as *Research and Monitoring* and *Education and Training*. The concepts themselves present a concise overview of the need for funding and what the project could achieve. It includes an estimated budget and suggested time frame.

Effectiveness

The concepts initiative has been deemed very successful by the AEWA team, with 64% of the concepts developed into current projects. The majority are projects funded under the GEF African Eurasian Flyways project, but a number have been funded by individual sponsors. The work is a compilation of ideas from partners from throughout the flyway. In regard to effecting collaboration amongst partners it could also be deemed successful. Furthermore, the Leaflets Project was created to develop a mechanism for gaining funding to address the current lack of funds available to complete the work desired within the Flyway. The uptake rate of the projects, mentioned above, suggests the concept initiative has been successful in developing this mechanism.

Issues AEWA faced

One issue was raised with the implementation of the Concept Leaflets. This was in relation to potential supporters having difficulty distinguishing between single leaflets in the one category. Each category, which contains a number of different concepts, has the same title heading and picture above each of the concepts it. Some supporters were unsure of the difference between each project under the category heading. To resolve this issue the authors will include a more detailed subtitle for each concept to clarify they are separate projects.

Comparison of methods

The EAAF Partnership and the AEWA group have both developed a series of concept projects, a short one page summary of a potential idea for research/projects desired within each respective Flyway. The groups used a different approach in the production of these concept lists. The EAAF Partnership utilised an informal web based discussion group and email correspondence to Partner organisations to elicit their collaboration. The approach used by the AEWA group involved a more formalised arrangement as the process is an important part of their triennial MOP. While the approach used by the EAAF was still effective, only a moderate proportion of Partners responded and contributed either discussion or concept documents. The main difference between the two project approaches is the AEWA uses a formal method for creating a document to be used for generating funding. In AEWA, the formal method creates an incentive for the Partners to develop a project concept which is then submitted to the MOP, in order to have their project needs placed on the agenda, at the MOP and for the next three years. This approach places the onus squarely on the Partners for developing the concepts and submitting to the MOP. As this formalised approach was not used in the development of the EAAF partnership it was more difficult in garnering the desired level of collaboration and input.

However, the aim of the EAAF approach, by using a web based discussion group, was to ensure all partners had the opportunity to participate in any discussion of concepts. This was to encourage collaboration and developing concepts that were applicable Flyway wide and congruent with the Flyway goals. While Partners were encouraged to submit project concepts that would apply Flyway wide, they could also apply to a specific species, wetland habitat or region. It was found that most concepts addressed the latter. Many of the concepts, although specific to a particular species or habitat, can be applied to other areas of the Flyway. Any future Concept Project work, or project development work within the Flyway could utilise the concepts discussed in this document.

If the concepts developed here are a useful tool for the EAAF Partnership and the Partnership wish to continue with the development of concept projects in the future, it is recommended that an approach utilised by the AEWA might be more appropriate and have a greater effectiveness in garnering participation from the Partner Organisations. However, if the aim is for an inclusive discussion and collaboration during concept development, then this aspect of the EAAF approach should be retained.

Table 1 Concepts and corresponding Implementation Strategy Objectives and Outcomes.

Concept	Link (Objective)	Link (Outcome)
Wetland and waterbird conservation through poverty alleviation	1	3
Sustainable Management of Marine Sites for Future Generations	1	1
	3	7, 8 & 10
Sustaining livelihoods for the conservation of migratory waterbirds and their habitats in the East Asian-Australasian Flyway	1	3 & 4
Integrated wetland and waterbird management framework	1	3
	2	5
	4	13
A Flyway Education Program Featuring Cranes, Wetlands and Healthy Communities	2	5
E-newsletter for the East Asian – Australasian Flyway Partnership	2	6
International Collaboration Program in Monitoring Sites 1000 for Analyzing Waterbird Migration in Asia	1	1 & 4
	3	7, 8 & 10
Assessment of climate change risks at selected wetland sites across the East Asia – Australasian Flyway and proposals for adaptation response	1	2
	3	9
A program for the conservation of migratory waterbirds and sustainable use of tidal mudflats in the Yellow Sea	3	8,9 & 10
Establishment of a program for effective waterbird and habitat data collection, management and accessibility for EAAF partners	3	7 & 8
	5	14
Collaborative, landscape-level investigations of migratory waterbird habitat at Poyang Lake	3	9 & 10
Rapid ecological assessment surveys in the coastal wetlands of Thailand	1	1
	3	9 & 10
	4	12
Establishment of the migratory birds monitoring network in the Mekong Delta	3	7 & 8
	4	13
Migration study, ecological monitoring and network development for conservation of the Black-necked Crane	5	14
A Flyway Approach to Conservation of the Red-crowned Crane	3	9
	5	14

Develop the Flyway Network of sites of international importance for the conservation of migratory waterbirds

Concept: Wetland and waterbird conservation through poverty alleviation

Concept

In many developing countries wetland resource loss can often be linked with the poverty of local communities. This concept proposes to restore and conserve wetland resources through researching and applying alternative livelihoods for local communities so as to protect wetlands and wetland biodiversity. At individual sites, demonstration projects will be developed to focus on the integration of wetland conservation and poverty reduction for local communities, highlight alternative livelihood options and facilitate stakeholder participation in site management.

Suggested activities

- Determine the social and economic status of local communities;
- Assess the livelihood of local communities;
- Investigate feasible options for economic development and choose priority options as demonstration programs for local communities based on strict criteria;
- Sustain and expand the demonstration programs throughout the communities around the wetland;
- Site selection – Sites should be those included in the Partnership's waterbird site network (if not, their nomination should be a pre-condition for inclusion in this project)
- Develop criteria for the selection of demonstration sites, such as situations where poverty and exploitation pressures are a major issue affecting the status of wetland resources
- Enhance public awareness of the importance of healthy wetland ecosystems;
- Enhance public awareness of resources conservation.
- Build capacity for stakeholder input to wetland management (for example, through site management committees)

Some suggested sites

A number of crane network sites already have experience of community development projects and are well positioned to build on this experience;

- Khingansky and Muraviovka (Russia)
- Zhalong, Keerqin and Poyang (China)
- Potentially some Sarus Crane sites in Vietnam or Cambodia

Sites in Thailand have been proposed, such as Laem Son National Park, Krabi estuary and Phang-Nga Bay. It is suggested that activities at these sites may be to organise local stakeholder workshops with low income groups (such as local fishermen and families) to raise awareness of the potential for bird-tourism in coastal areas in and around the sites. This project would provide support for raising awareness through exchanges with fishermen from other regions, study visits to other communities experiencing similar situations, and assistance with developing business models at the local level. These activities would be an initial step to the development of a demonstration project linking coastal wetlands with waterbirds in order to improve community livelihoods, working towards the eradication of poverty

Proposed Partners: Wetlands International - Thailand, International Crane Foundation, China Academy of Forestry

Duration: Five years

Budget: up to \$US200 000 per year

Develop the Flyway Network of sites of international importance for the conservation of migratory waterbirds

Concept: Sustainable Management of Marine Sites for Future Generations

Concept

In the recent meeting of the Flyway Partnership, a seabird working group was formed. This concept is in support of seabird conservation efforts through the new working group. A major target developed by the group was to establish a comprehensive system of marine protected areas by 2012, this could be achieved in part, by the identification of marine Important Bird Areas (IBA) within the Flyway. An IBAs is an area that supports more than 1% of a birds species global population, as such it is a significant site for a particular species' conservation. It is also proposed that this effort could support the conservation of marine areas where threatened seabird species are found. In Asia, most of the important seabird populations are shared among the countries of Russia, Japan, China and Korea, where as significant tropical seabird populations are shared by South East Asian countries such as Malaysia, Indonesia and the Philippines. Work should focus on two main areas;

- To identify, document and assess potential coastal and marine IBAs in Asia as a contribution to the conservation and sustainable management of the oceans;
- To conserve priority marine IBAs in Asia, in particular by promoting the designation of these key sites as new marine protected areas;

Suggested Activities

- Organise a regional working group on marine and seabird conservation
- Surveys and monitoring of potential marine sites for seabirds in Asia to assess the knowledge base of population status and trends and migration routes
- Conduct an initial inventory of important breeding sites
- Workshops on prospective marine IBAs as potential protected areas
- Publication of Key Marine Conservation sites directory for Asia
- Cross visit on seabird conservation to South America and South Africa
- To take initial conservation action in selected marine IBAs
- To generate local and/or international support for continuing work in important marine sites
- Regional workshop/symposium on marine biodiversity conservation and seabird conservation
- Develop and distribute awareness raising materials i.e. flyers, posters and video on marine and seabird conservation
- Seabirds and Marine Conservation Competition for School Children and with Nippon Foundation Award for the best poster or story

Budget: \$US150 000 per year over three years, total = \$US450 000

Duration: 2009 – 2011

Proposed by: Birdlife International

Build the habitat and waterbird management capacity of natural resource managers, decision makers and local stakeholders

Concept: Sustaining livelihoods for the conservation of migratory waterbirds and their habitats in the East Asian-Australasian Flyway

Concept

Livelihood issues and biodiversity conservation are linked in the management of many important wetlands along the East Asian-Australasian Flyway. This project proposes to use the *Livelihood System Approach (LSA)* to pilot activities that support local communities in the development of livelihood opportunities to reduce pressure on wetland resources. Some key considerations for this work include:

- Understanding the livelihood dynamics of local communities
- Identifying livelihood strategies, including incentives and interventions, that will achieve positive changes in the living conditions of communities while conserving migratory waterbird habitat
- Piloting intervention strategies and evaluating their impact on the livelihoods of communities

Suggested activities

- Desktop assessment, including preliminary community consultation, to identify priority communities (at a suitable scale) along the East Asian-Australasian Flyway where overlap in resource use and livelihood issues is a challenge for the conservation of migratory waterbird habitat
- Community consultation - including a facilitated workshop - with communities (using the LSA approach) to develop key components of a sustainable livelihood project. Questions to be addressed may include:
 - What livelihoods are practiced, and on what natural resources are they dependent?
 - How is access to natural resources (resource rights) structured in each case?
 - What are the problems/conflicts that arise with resource rights and what are their implications for human security?
 - What structures and processes would resolve these problems/conflicts?
 - Practically, what steps need to be taken to achieve this resolution?
- Develop project plans for one or several pilot projects (to address, for example, capacity building or poverty alleviation)
- Implement the pilot project(s)

Duration: Three years

Budget: \$US100 000 per year

Proposed by: Department of Environment, Water, Heritage and the Arts

References

www.livelihoods.org

Build the habitat and waterbird management capacity of natural resource managers, decision makers and local stakeholders

Concept: Integrated wetland and waterbird management framework

Concept

This concept has a specific focus on the sustainable management and wise use of wetlands in coastal areas of Thailand. The concept highlights wetland planning and management through a multi-sector approach while strengthening institutional frameworks and building capacity around pilot wetland areas. It is envisaged that some key outcomes should be:

- Protection of globally significant wetland biodiversity and strengthened wetland biodiversity management
- Raised public awareness of waterbirds, wetland biodiversity values and functions
- Increased community involvement in management of wetland.
- Biodiversity-friendly land use planning demonstrated through preparation of biodiversity overlay.
- Sustainable livelihood alternatives for local communities in and around wetland areas.

Suggested Activities

- Inter-agency and intra-agency cooperation is required in order to secure the required multi-sector approach. This should include the involvement of the Federal and State/Provincial governments. Furthermore, government staff should be trained in technical, planning and management issues relevant to wetlands.
- Awareness campaigns should be developed and conducted throughout the region, customized for different selected stakeholder groups including the wider public, government administration and the local communities in the pilot wetland areas.
- Activities at pilot wetland areas should be focused on participatory planning and implementation of management plans. The starting point for the planning process will be field surveys and economic, social and ecological assessments of the actual value of the pilot wetland areas. These activities will serve to demonstrate the economic and ecological losses from degradation of the wetlands.
- In the pilot areas, resources will also be made available for local initiatives or Small Grant Facilities in order to demonstrate more sustainable land use and harvesting practices and to generate alternative income activities to improve the livelihood, and at the same time ease the pressure on wetland resources.
- An important aspect in the proposed project approach in Thailand is the linking-up to ongoing implementation of the New Thai Constitution, which promotes decentralization and supports public participation in natural resources management and conservation.

Budget: \$US100 000 per year, total = \$US300 000

Duration: Three years

Proposed by: Wetlands International - Thailand

Enhance communication, education and public awareness of the values of migratory waterbirds and their habitats.

Concept: A Flyway Education Program Featuring Cranes, Wetlands and Healthy Communities

Concept

This concept has been proposed by the International Crane Foundation and as such its specific focus is on Cranes. However it presents a useful methodology that can be applied for similar education programs throughout the Flyway. If successful it could be applied to other species or habitats.

This project proposes to build on the “Three White Cranes, Two Flyways, One World” initiative linking environmental education activities among wetland network sites important for cranes.

The project would expand the flyway approach among the six countries participating in the North East Asian Crane Site Network and in addition include Cambodia and Vietnam (Thailand and Myanmar would be possible additions) where important wetland sites provide in part for conservation of the threatened eastern subspecies of the Sarus Crane. Education programming would emphasize overall management and conservation of the wetland sites, and thus benefit all waterbirds present. The project aims to:

- Develop activities and materials that reflect the importance of wetlands for people living near network sites, as well as local cultures.
- Closely integrate education programming with needed conservation responses to threats to network sites and local communities.
- Heighten awareness of flyway approaches to conservation, and of the significance of each network site to the entire flyway.
- Increase leadership capacity for nature reserve staff and local teachers -- through training, practical experience, and exchanges along the flyway.

Suggested activities

- Development of curricula and summer camp programs by local teams for their sites.
- Teacher leadership training and exchange (within East Asia and involving American teachers with co-financing).
- Website created in multiple languages to support experience sharing and communication among schools, teachers, and students in the region.
- Support for conservation action projects by teachers and students.
- Regional workshop in third year to evaluate project and strategize about how to sustain and expand this work in the future.

Budget: \$US125 000 per year, total = \$US375 000

Duration: Three years

Proposed by: International Crane Foundation

Enhance communication, education and public awareness of the values of migratory waterbirds and their habitats.

Concept: E-newsletter for the East Asian – Australasian Flyway Partnership

Concept

The East Asian-Australasian Flyway Partnership provides a framework for international cooperation for the conservation of migratory waterbirds and the sustainable use of their wetland habitats in the East Asian-Australasian Flyway. To carry out this task effectively it is essential that the Partnership is recognised as the predominant partnership for the protection of migratory waterbirds and their habitats in the flyway. The Partnership Communication Strategy outlines the desired pathway for raising awareness of the Partnership. This concept builds on ideas presented in the Communication Strategy by proposing the development of an e-newsletter for the dissemination of news regarding activities, projects and general information regarding the Flyway. It will also aim to recruit new government and NGO partners

Suggested activities

- It is proposed a group be created, possibly utilising the Flyway Secretariat, which will be responsible for coordinating the development of the newsletter. It is suggested that initially the newsletter be issued quarterly. It is expected that with the continued development of the Flyway Partnership and the successful publication of the newsletter, the frequency of publication will increase.
- The newsletter will contain news on project updates, new projects, successful projects and activities. It will also be a way to disseminate useful information about upcoming events such as conferences and symposiums, across the flyway.
- It is proposed that the e-newsletter be posted on the new EAAF website and on the website of the partner organisations. The newsletter would ideally be multilingual to be accessible to audiences across the flyway.

Budget

It is expected that the budget required to run this project will be minimal. It will be run on the anticipation that Flyway members will submit the majority of articles and stories to be included. Funding may be required for professional formatting and editing of the newsletter. Funding for the time of the organizing body will also be required.

Time – \$US15 000 per year

Formatting - \$US3 000 per year

Duration: Initial setup will take 6 months, after which the project will be ongoing.

Proposed by: Wetlands International - China

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats

Concept: International Collaboration Program in Monitoring Sites 1000 for Analyzing Waterbird Migration in Asia

Concept

This concept was put forward by Wetlands International – Japan. The concept details the approach to be used in the next two years to investigate the fluctuations and variability of migratory bird migration routes, populations and habitats.

This program (with cooperation from relevant countries and organizations) proposes to analyze previously collected data on waterbirds (e.g. Asian Waterbird Census) to identify fluctuations in waterbird migration routes, population densities and habitats in Asia, and the underlying causes of these fluctuations. The focus will cover the migration of shorebirds and Anatidae in Japan and a comparative data analysis among the range states especially in Asian region. Desired outputs to the program will include:

- Results of the comparative analysis on the migrations of shorebirds and Anatidae in Japan and Asia
- Identification and discussion of the problems associated with the collection of more accurate data.
- To provide feedback of the analysis to the data collectors to enable to continue improvement of data collection programs

Suggested activities

- Analysis of the results obtained from waterbird census's such as Asia Waterbird Census (AWC), and other available census programs;
 - Review results produced by the international census programs including AWC, and the governments' and NGOs' censuses in Asian countries
 - Comparative analysis on fluctuation and its factors in the waterbird migrations between Japan and other Asian regions
 - Identification of problems for collecting necessary information to analyze the fluctuation on the waterbird migrations and its factors
- Symposium to share the information on waterbird migrations and to discuss further collaboration to promote migratory waterbird census in Asia
 - Date: February, 2009
 - Objective: To understand waterbird migrations and their fluctuations in Asia and to find the problems and solutions for more accurate waterbird census and information sharing.
 - Speakers: Three experts from Asia, two experts from Japan

Budget: \$US100 000

Duration: Two years

Proposed by: Biodiversity Center of Japan, NCB, MoEJ

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats.

Concept: Assessment of climate change risks at selected wetland sites across the East Asian – Australasian Flyway and proposals for adaptation responses

Concept

In view of serious concerns about the potential impacts of climate change on wetlands along the entire East Asian – Australasian Flyway (EAAF), with a range of threats including changes in the Arctic breeding ground landscapes, to intensified droughts affecting staging areas in NE Asia, coastal squeeze impacts from rising sea levels in NE and SE Asia and drought in Australia, there is a need to assess the climate change vulnerability of key wetlands for migratory waterbirds. While regional forecasts are available, how this translates into practical and effective action on the ground is largely untested. Much work needs to be done at the local level in order to determine risks and appropriate adaptation responses that will mitigate negative impacts on migratory waterbird populations and local communities.

This regional project would aim to conduct climate change vulnerability assessments at a selection of sites which might be considered representative of key wetlands for migratory waterbirds for different parts of the EAAF. This project would produce recommendations for management responses (where practical) which could then be put into action as “Phase II” or put forward as separate project proposals in due course.

Scope

The project provides a broad framework, within which a variety of regional, national and local partners would have scope to lead on different site-level activities. It is suggested that demonstration sites should be selected across different climatic zones, explicitly including those regions that have been identified by IPCC and other authorities as being particularly vulnerable to climate change. It is therefore suggested that site selection should include the following biomes:

- Arctic tundra wetlands
- Freshwater inland wetlands in the Amur/Heilong Basin.
- Coastal wetlands in NE Asia (e.g., Yellow Sea)
- SE Asian deltas and other low-lying coastal wetlands such as Thale Noi Non Hunting Area, Songkhla Lake Non-Hunting Area, Nong Bong Khai Lake in Thailand
- Coastal wetlands on small island states
- Australasian inland wetlands vulnerable to drought

Suggested Activities

The selection of sites should be finalized based on criteria for prioritization and feasibility, and the preparation of standard datasheets for each site. A harmonized approach to climate change vulnerability assessment should be undertaken across the sites, so a first step would be to develop guidelines (or adapt existing guidelines) and review these at a regional workshop before putting them into practice.

Stakeholder assessments should also be undertaken for the selected sites in order to determine local partners. Working groups should be set up for each site to oversee the implementation of the vulnerability assessments and preparation of recommendations for adaptation measures.

The activities conducted at each site should be consistent with the guidelines, but could incorporate additional elements proposed by partners relating to specific research or conservation priorities.

Communication, education and public awareness activities should be included at all sites in parallel with the vulnerability assessments, and drawing on the information gained from the site assessments, in order to sensitize local stakeholders and decision-makers. This effort will prepare the way for the implementation of adaptation measures.

Where the need for specific adaptation measures is already apparent, this project could also support limited implementation in the form of demonstration projects. Examples might include: development of watershed management plans, “managed retreat” plans for coastal defences to re-flood reclaimed coastal wetlands, assessment and implementation planning for environmental flows for inland wetlands, extension/changes of protected area boundaries, etc.

Implementation Arrangements

The overall project would need an international coordination unit. This coordination unit would oversee the overall implementation of the project. Component site projects would be implemented under the international framework by a variety of partners. Communication would take place by email with visits from ICU staff for guidance.

Partners

- This project is highly suitable for collaboration at all levels (flyway to local)
- As project proponent, ICF is interested in roles at flyway and site levels, especially at sites of conservation significance for crane species (e.g. Kytalyk in Arctic Yakutia, and wetlands in the Amur/Heilong Basin)
- Wetlands International – Thailand would like to lead on projects focused on ecosystems changes, bird population and roosting changes within the three reserves mentioned above.

Project Duration: 3 years

Budget.

This will be project dependent. Conservative estimates are presented below

- ICU - \$100,000 per year
- Regional workshop - \$60,000
- Each Site - \$50,000 per year x 8 sites = \$400,000 per year
- Total over three years = \$1,560,000

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats

Concept: A program for the conservation of migratory waterbirds and sustainable use of tidal mudflats in the Yellow Sea

Concept

The Yellow Sea is one of the most important areas for migratory shorebirds in the East Asian-Australasian Flyway. The region supports two million shorebirds, (40% of the total flyway population) during northward migration, one million during southward migration and 650,000 birds over the non-breeding season. In addition to shorebirds, the Yellow Sea also provides important habitat for more than 1% of the flyway population of 22 waterbird species of global conservation concern.

Shorebird populations are declining globally and in the East Asian-Australasian Flyway, five species of shorebird are classified as threatened and nine populations are in decline. Migratory shorebirds share this flyway with 45% of the world's human population, with many important wetlands adjacent to rural and urban areas undergoing rapid economic and social development.

To address declines in Australian and flyway populations, Australia wishes to explore options for collaboration with China, Japan and the Republic of Korea in the Yellow Sea. Preliminary consultation with waterbird experts in these countries has identified key elements for collaboration in the region.

Suggested activities

Key areas for collaboration include:

- Shorebirds: population monitoring and migration studies
- Tidal flats: monitoring the health of tidal flat resources (e.g. invertebrates, water quality)
- Planning: protected areas planning and management
- Management: understanding the livelihood dynamics of local communities

Projects identified to facilitate this collaboration include:

- The review of information and resources on migratory shorebirds and tidal flats in the Yellow Sea (e.g. theme, project, organisation, outputs, language, recommendations) with a view to making this information more widely available
- Capacity building through applied shorebird and tidal flat research to aid planning and management of migratory waterbird habitat in the Yellow Sea, including:
 - Shorebird population monitoring and migration studies
 - Tidal flats: monitoring the health of tidal flat resources (e.g. invertebrates, water quality)
 - Information to assist planning and management for shorebirds and tidal flats
- Targeted education and awareness activities to raise the profile of migratory waterbirds and their conservation needs in the Yellow Sea (e.g. Flyway Partnership Workshop, Yangtze forum)

Budget: \$100 000 per year

Duration: Three years

Proposed by: Department of the Environment, Water, Heritage and the Arts (Australian Government)

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats.

Concept: Establishment of a program for effective waterbird and habitat data collection, management and accessibility for EAAF partners

Concept

For governments to achieve effective conservation and sustainable management of waterbirds and their habitats in the East Asian-Australasian Flyway, comprehensive, accurate and up to date information is required. This concept proposes the establishment of a Program where waterbird and habitat data is collected on a regular basis and collated at a national and Flyway level for analysis of trends to facilitate effective decision making and management within the Flyway. This information is needed to inform the global waterbird population assessment and threatened species status of waterbirds. The monitoring of populations and their distribution will underpin the development of conservation strategies and identification of priority habitats.

Suggested activities:

- A comprehensive review of the existing waterbird monitoring programs in the EAAF at national and international levels during wintering, migration and breeding periods of the lifecycle of migratory waterbirds. This will include the Asian Waterbird Census 20 year review.
- Overview and analysis of conservation strategies conducted over the last 20 years.
- Establishment of a Program to coordinate and manage the information collected from the EAAF region.
- Timely review and analysis of the status of waterbirds and their habitats for the needs of conservation actions and decisions.
- Development of an information sharing mechanism to ensure that data can be accessed by the public.
- Expansion of the Program to provide updated habitat information, population status, and training opportunities.

Budget: \$US100 000 per year over five years, total = \$US500 000

Duration: Five years, expected to become ongoing

Proposed by: Wetlands International - China

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats.

Concept: Collaborative, landscape-level investigations of migratory waterbird habitat at Poyang Lake

Concept

Some particular wetlands or habitats within the Flyway are home to significant populations of one or more species of migratory birds, as such they call for specific management regimes to ensure their continued survival. These sites require intensive investigation to determine baseline data on water regime, aquatic plants and the waterbird population. Once a baseline is established, ongoing monitoring is required to track changes and determine impacts. Furthermore any effective management regime will need to have a component of community education, dissemination of information, through workshops, presentations and other forms of community involvement, and also the development of partnerships between local, provincial and central government, research institutions and community groups. One such example is the proposal put forward by the International Crane Foundation focusing on Poyang Lake, Jiangxi Province.

Poyang Lake basin is one of the most important sites in NE Asia for a wide range of waterbird species, both globally threatened species and common species. The lake system is under pressure from a range of development activities, including significant water engineering projects and shifting land/water uses by the 10 million people within the lake basin. In response to these threats, ICF initiated a program of ecological research together with Chinese partners in 1999. This was strengthened through the UNEP/GEF Siberian Crane Wetlands Project and in the last 3 years meetings have been held to coordinate international and national research efforts by a wide range of partners at Poyang.

Suggested activities

- Study *Carex* and *Vallisneria* communities through graduate training with international and local universities. *Carex* and *Vallisneria* are two of the major aquatic vegetation communities in Poyang Lake wetland ecosystem and are the main food plant species for geese, swans, and endangered Siberian Cranes. Mapping of *Carex* and *Vallisneria* communities, biology, plant productivity, distribution changes within-year and between years, synthesizing data on *Carex*-browsing waterbirds collected by ICF's partners.
- Study movement and habitat use of target species (Siberian Cranes) within the lake basin and surrounding regions. Tracking of the target species with coloured bands and satellite transmitters. Geographic coordinates, habitat type, plant species composition and water depth of the sites will be recorded. Winter migrations will be determined. Roost sites will be documented, which has never been done before.
- Hold a research workshop on Poyang Lake to share and disseminate research results. The workshop should attempt to identify ongoing gaps in research needed to address the complex inter-relations of the Poyang Lake ecosystem. Additionally, the workshop will provide a platform through which researchers and policy makers can come together and develop more effective planning process and development goals. These goals include more comprehensive ecosystem valuation models and development initiatives that explicitly incorporate the ecological outputs of the Poyang Lake system into their agendas.

Budget: \$US300 000

Duration: Three years

Proposed by: International Crane Foundation

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats

Concept: Rapid ecological assessment surveys in the coastal wetlands of Thailand

Concept

Rapid ecological assessment of ecosystems throughout the Flyway can provide critical data for the management of these target ecosystems. It can be focused to included species that have been identified as vulnerable, threatened or endangered. This concept identifies a need for rapid ecological assessment of a series of wetlands in Thailand. However, the concept of rapid ecological assessment can be utilised in other areas of the Flyway.

The proposed ecological surveys - to be carried out by Wetlands International-Thailand in close collaboration with the Wetlands Research Center, Prince of Songkla University and Bird Conservation Society of Thailand will study and compare species diversity and population size of birdlife in coastal wetland areas of Thailand. The aims of these surveys will be to:

- To demonstrate the ornithological importance of the coastal wetlands in Thailand (using birds as indicators of the wider biodiversity)
- To compare the impacts of the different degrees of protection provided on biodiversity, esp. birds. To determine species-habitat associations and the effects of environmental changes and human activities on these associations.

Suggested activities

The key periods in the migratory bird cycle occur in Thailand during the Sept-Oct (southward migration) and March-April (northward migration) periods. In addition, the intervening period (Nov-Feb) is important for species that "over-winter" in Thailand. Ideally, a detailed ecological survey should cover all three periods in order to fully understand utilization and conservation significance of the proposed areas. However this may not be possible within the given timeframe, only the September to October and November to February periods can be covered in this assessment.

An important facet of the Wetlands International – Thailand approach will be to utilize its technical expertise to build capacity amongst local Thai counterparts during the entire survey and assessment process. Thus the Wetlands International – Thailand survey team will conduct on-the-job training in field survey methodology, bird identification, habitat assessment, result analysis, etc during the project period. Basic survey methodology will follow the techniques detailed in Howes and Bakewell (1989) and other Wetlands International field manuals.

It is envisaged the work would be completed over a period of 6 months, some specific activities could be:

- Literature Review for current knowledge and historical perspective
- Rapid assessment (boat and ground surveys)
- Intensive survey of key areas identified during rapid assessment (boat and ground surveys) and report of first findings
- Intensive survey of key areas identified during rapid assessment (boat and ground surveys).
- Report drafting, review and finalisation

Budget: \$US50 000

Duration: One year

Proposed by: Wetlands International – Thailand

Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats

Concept: Establishment of the Migratory Birds Monitoring Network in the Mekong Delta

Concept

A large number of migratory wetland bird species visit the Mekong Delta each year as part of their annual migration to further breeding areas or for over wintering. The conservation of these birds requires the identification of important habitat and the selection of suitable monitoring sites in the Delta. This will enable the identification, documentation and protection of a network of important bird areas within the Mekong delta area. Although this concept is focused on a specific location within the Flyway the methodologies and concept applied should be adaptable throughout the Flyway.

The monitoring program will draw on lessons learned under the WWF-Coca Cola Plain of Reeds Wetland Restoration Project. This program had similar objectives, in training and equipping national park staff to improve bird monitoring at Tram Chim National Park.

Suggested activities:

- Designing and setting up a network of monitoring stations for migratory birds at IBAs in the Delta
- Monitoring migratory bird species, e.g. numbers visiting, duration of their stay, the places they stay, mortality etc.
- Improve communication and data sharing on the conservation status and the values of migratory birds and their habitats

Once the site network has been established further work could be completed in the following areas

- a network of monitoring stations for migratory birds at IBAs in the Delta.
 - Providing (on the job) monitoring training in determining: such things as bird population sizes, species diversity and presence of high conservation status species.
 - standard waterbird sampling methods will be taught such as, mist netting, distance sampling and point count and line transect observations.
 - Providing (on the job) training in compiling data gathered using GIS software (all sites will use the same protocol to gather and process data)
- Improved communication and data sharing on the conservation status and the values of migratory birds and their habitats, including the development of single database with all the above information.

Budget: Funds will need to be sourced for this activity. The proposed budget is:

- proposal development: \$US12 000
- Five year project: \$US75 000 per year, total \$US387 000

Duration: Five years

Proposed by: World Wild Life Fund for Nature – Thailand Office

Flyway wide approaches for protection and management of conservation status migratory waterbirds

Concept: Migration study, ecological monitoring and network development for conservation of the Black-necked Crane

Concept

Development of a collaborative program to carry out work such as population counts, migration studies, habitat use and selection, and anthropogenic land-use impacts on threatened species. The work should be targeted at specific areas or species where significant threats or populations exist. The aims of such work would be:

- to determine migrations paths and strategies,
- to establish long-term monitoring programs on focus species and their wetland habitats in selected breeding and wintering areas (which are vulnerable to climate change),
- to strengthen the conservation networks.

The International Crane Foundation have developed this concept for the Black Crown Crane, however the concept is malleable to other species within the Flyway. The western part of China holds over 90% of the world's population of the globally threatened (Vulnerable) Black-necked Crane, sharing fragile arid plateau habitats with some 90 million people. ICF wishes to develop a collaborative program on the Black-necked Cranes building upon 20 years of experience in the region. The project can be extended to include Bhutan and India's Ladakh region, geographically within the same region as western China.

Suggested activities

- Conduct migration study for western and central populations of this species by using color-banding and satellite tracking. Migration routes and stop-over sites will be determined, and threats to stop-over habitats will be identified and assessed. Recommendations for conservation and management of the western and central population will be proposed across their migration cycle
- Set up long term ecological monitoring programs at wintering and breeding areas, most likely in nature reserves. These monitoring programs will establish baseline data on aquatic vegetation, water resources, waterbirds, and land-cover/use, determine relations among these environmental parameters, and help with mitigating impacts on target species and their habitats from development activities and climate change. This monitoring program will not only help wildlife management agencies in decision making for the study sites, but also set up models in wetland monitoring for other nature reserves.
- Create, maintain and expand a conservation network. For instance, a Black-necked Crane Conservation Network was established in 2006; currently most network sites are from the migration route of the eastern population. Across multiple flyway meetings should be held, to share and exchange monitoring and management experiences among the sites and along migration routes.

Budget: \$US330 000

Duration: Three years

Proposed by: International Crane Foundation

Note – India was an observer at the second EAAFP Meeting; Bhutan is not a partner at present.

Flyway wide approaches for protection and management of conservation status migratory waterbirds

Concept: A Flyway Approach to Conservation of the Red-crowned Crane

Concept

The EAA Flyway harbours a number of threatened and endangered species, many of these require specific management in order for the population's continued sustainability.

A Flyway wide approach is essential for the successful management of these species. This concept proposes work that will encompass the following:

- To better understand the status and threats facing these species and their critical habitats.
- To bring researchers and conservationists together from throughout the species migratory range, to share information and develop conservation plans.
- To fill gaps in knowledge and initiate highest priority conservation activities, particularly concerning wetlands that serve as critical habitat for many other waterbird species.
- To raise public awareness and support for the severe threats to target species and wetlands in Northeast Asia, and for the conservation actions needed.

Suggested activities:

- Annual meeting of representatives of range states and leading researchers.
- Coordinated survey on the wintering grounds (each year) and breeding grounds (second and fourth years).
- Support for one pilot activity for assessing water needs and developing mechanism to deliver water to restore ecosystem functions at a wetland network site, for benefit of wildlife and local people.
- Development of an international exhibit, traveling to the range countries, to highlight severe threats and needed actions as well as success stories.

One particular project that has been proposed in the concept stage is the conservation of the Red-crowned Crane. The Crane is listed as globally threatened (Endangered) and in need of urgent conservation attention. Its population consists of two populations; the island population confined to Hokkaido, Japan, is non-migratory and has been artificially fed in winter since the 1950s. The population has grown dramatically, but restricted wetland habitats for breeding limit future population growth, while the concentration of birds in winter alters behavior of the birds and carries risk of disease. The mainland population breeds primarily in the Amur River Basin of China and Russia, and migrates to winter near the Demilitarized Zone of Korea and on the east coast of China. The wetland habitats in all parts of its range are heavily threatened by development, water diversion, human disturbance and prolonged drought that may be associated with climate change. While the island population keeps increasing, the mainland population has decreased continuously over the past decade. Work will aim to

- Share information, methods and the very different experiences in working with Red-crowned Crane.
- Develop conservation strategies, collaborative field programs, and targeted education efforts.

Budget: \$US350 000

Duration: Four years

Proposed by: International Crane Foundation

Appendix 1: Flyway Partnership Objectives and Outcomes Statements

Objective 1: Develop the Flyway Network of sites of international importance for the conservation of migratory waterbirds, building on the achievements of the APMWCS networks.

Outcome 1: The Flyway Site Network has developed to include at least 200 sites of international importance for migratory waterbirds.

Outcome 2: The management activities at sites result in a halt of loss of biodiversity or an increase in the conservation status of species concerned

Outcome 3: The Flyway Site Network is demonstrating sound integration of wetland biodiversity conservation and sustainable development that benefits local communities.

Outcome 4: The ecological, social and economic values of sites of international importance for migratory waterbirds are recognized in development and impact assessment processes.

Objective 2: Enhance communication, education and public awareness of the values of migratory waterbirds and their habitats.

Outcome 5: There is a high level of awareness and recognition of the ecological, social and economic values of migratory waterbirds and Network sites.

Outcome 6: There is a broad level of recognition of the activities and achievements of the Flyway Partnership.

Objective 3: Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats.

Outcome 7: Scientifically sound information is available on the Flyway wide status and trends of waterbird populations and their habitats.

Outcome 8: Information is available on the internationally important sites for migratory waterbirds in all countries of the Flyway.

Outcome 9: Threats to internationally important sites for migratory waterbirds have been assessed and recommendations for appropriate management actions developed.

Outcome 10: Knowledge of the ecology and migratory strategies of waterbirds is enhanced to support conservation action.

Outcome 11: Knowledge of the potential role of migratory waterbirds in disease transmission, especially Avian Influenza, is enhanced.

Objective 4: Build the habitat and waterbird management capacity of natural resource managers, decision makers and local stakeholders.

Outcome 12: Improved understanding of capacity needs for stakeholders for management of internationally important waterbird sites.

Outcome 13: Natural resource managers, decision makers and local stakeholders at internationally important sites have the skills and support to enable sustainable management of waterbird habitats.

Objective 5: Develop, especially for priority species and habitats, flyway wide approaches to enhance the conservation status of migratory waterbirds.

Outcome 14: Collaborative Flyway-wide actions for waterbird species and habitats have improved the conservation status of priority species.