



# **Conservation Planning for Priority Shorebirds of the East Asian – Australasian Flyway**

## **Stakeholder Workshop**

**Hong Kong, December 3 – 5, 2013**

**Organizer:  
Workshop facilitator:**

**WWF-Hong Kong  
Doug Watkins**



# Contents

Summary .....	1
1. Introduction.....	3
2. Planning for the Stakeholder Workshop.....	4
3. Workshop Discussions.....	8
3.1         Introduction of Participants .....	8
3.2         Conservation Planning Process .....	8
3.3         Key Threats to Priority Shorebird Populations .....	8
3.4         Potential Implementation Mechanisms .....	9
3.5         Implications for the Structure and Content of the Conservation Plan .....	11
3.6         Developing the Conservation Plan.....	12
3.7         Review the Draft Outline for the Conservation Plan .....	14
4.0      Development and Implementation of the Conservation Plan .....	15
5.0      References.....	16
Appendix 1      Workshop Program .....	17
Appendix 2      Presentations to the Workshop .....	19
Appendix 2.1    Introductions.....	19
Appendix 2.2    Conservation Planning Process .....	40
Appendix 2.3    Key Threats to Priority Shorebird Populations .....	47
Appendix 2.4    Potential Implementation Mechanisms .....	106
Appendix 3      Documentation from the Workshop Breakouts .....	138
Appendix 3.1    Threats, Potential Opportunities, Solutions, General ideas .....	139
Appendix 3.2    National Mechanisms for Shorebird Conservation .....	141
Appendix 3.3    Implementation Options.....	142
Appendix 3.4    Beyond Site Based Approaches .....	143
Appendix 4      Proposed Collaboration Sites in the Yellow Sea.....	144
Appendix 4.1    Geum Estuary (Seocheon County / Gunsan City).....	145
Appendix 4.2    Yalu Jiang (Dandong, Liaoning).....	147
Appendix 4.3    Luannan Coast (Tanghai, Hebei).....	149
Appendix 4.4    Jiangsu Coast (including mouth of the Yangtze) .....	151

## Summary

WWF-Hong Kong is leading a project to develop a strategic conservation plan for priority migratory shorebirds in the East Asian – Australasian Flyway (EAAF). The objective of the project is to “ensure a flyway-wide Conservation Plan is in place to guide governments, conservationists, environmental NGOs and researchers to implement priority actions to conserve migratory shorebirds in the EAAF”. The project has been divided into four phases: a desktop-based assessment of the status of migratory shorebird populations (draft completed), a stakeholder workshop, production of the Conservation Plan and, promotion and implementation of the Conservation Plan.

In early December 2013, WWF-Hong Kong convened a three day workshop in Hong Kong that brought together 23 key stakeholders to guide the development of the Conservation Plan. Participants represented two Government agencies, seven non-government organisations with international conservation programs for migratory waterbirds, three waterbird conservation networks and three shorebird research organisations.

The desktop-based assessment of the status of migratory shorebird populations, developed in the first phase of the project, was circulated to participants prior to the workshop and provided the basis for selecting 20 priority shorebird populations.

The workshop program was divided into the following seven sessions: introduction of participants, the conservation planning process, key threats to priority shorebird populations, potential implementation mechanisms, implications for the structure and content of the conservation plan, developing the conservation plan and review the draft outline for the Conservation Plan.

The workshop, involving a range of presentations, group discussions and breakout sessions, developed the following guidance for the Conservation Plan:

- It focus on the key threats to coastal wetlands of the Yellow Sea in China and the Republic of Korea as these support the largest concentrations of the priority populations and are under the highest threat.
- Emphasis be given to identifying an initial set of internationally collaborative activities at specific sites around the Yellow Sea.
- The collaboration sites be used to demonstrate, to local government and coastal Provincial/Prefectural Governments around the Yellow Sea, how key biodiversity values could be better integrated in coastal management.
- The proposed collaboration sites identified are: Geum Estuary (Seocheon County / Gunsan City), Yalu Jiang (Donggang County, Dandong, Liaoning), Luannan Coast (Luannan County, Tanghai, Hebei) and Jiangsu Coast (including mouth of the Yangtzie).
- It was recognised that in addition to the site-based actions, a broader program of complementary activities were needed to address: awareness raising, capacity building, enhanced monitoring, migration research and best practise in coastal management.

Considerable attention was given to the potential implementation mechanisms and the implications of these for the development of the Conservation Plan. Participants agreed that the EAAF Partnership (EAAFP or the Partnership) provided the most appropriate framework for the implementation of the Conservation Plan. The implication of this is that the two key regional National Government agencies involved in the Partnership, State Forestry Administration (China) and the Ministry of Environment (Republic of Korea), need to be engaged and supportive of the Conservation Plan as it will propose international collaboration on site based activities in their respective countries.

The first opportunity for the Conservation Plan to be formally considered for adoption by the Partnership is at the next Meeting of Partners in January 2015. A series of bilateral and multilateral meetings were identified in late 2014 that provide a formal opportunity to discuss the draft Conservation Plan.

The timetable agreed for the development of the Conservation Plan is:

15 March 2014      Completion of the Draft Conservation Plan

- Engagement of State Forestry Administration (China) and the Ministry of Environment (Republic of Korea) and additional EAAFP Partners.
- Review of the draft Conservation Plan

15 August 2014      Revised Draft Conservation Plan available to consultation in international meetings

- Specific follow-up by NGO's to promote the Conservation Plan to EAAFP Partners
- late 2014      Bilateral Bird Agreement meetings in China (involving China, Korea, Ro, Japan, Australia)
- Oct 2014      CBD CoP 12 in Pyeongchang, Republic of Korea
- Nov 2014      IUCN World Parks Congress in Sydney, Australia
- Nov 2014      CMS CoP 11 in Guayaquil, Ecuador

15 December 2014      Submission of the Conservation Plan for inclusion in Agenda for MoP 8 of the Partnership.

This draft report on the Consultation Workshop will be circulated to workshop participants for comment. As part of this process participants will be invited to continue to engage in the development of the draft Conservation Plan due for completion in mid-March 2014.

## 1. Introduction

Each year, the changing seasons powers the migration of millions of waterbirds across the world. The primary drivers of this migration are the highly productive wetlands in the tundra and subarctic regions during the brief northern hemisphere summer. These northern summer wetlands of the far east of Russia and western Alaska provide the nesting habitat for waterbirds that migrate to East Asia, South East Asia and Australasia. This annual migration pathway is called the East Asian – Australasian Flyway (EAAF).

Over the past 40 years, the collaboration between non-government organisations, professional researchers and Government agencies has greatly increased knowledge about the Flyway. Ground counts and studies of marked waterbirds are now documenting the need for a “chain” of wetlands across the Flyway to support the migration of waterbirds.

With this increased knowledge has also come heightened concern about the declining status of a number of species. Migratory waterbirds in the EAA Flyway have been found to have the least favourable status of any flyway in the world with 62% of known populations decreasing or extinct and only 10% increasing (Wetlands International 2010). In particular, the status of migratory shorebirds has been highlighted.

The tidal flats of North Asia are considered to be the critical bottleneck for migratory shorebirds in the EAA Flyway (Barter 2002, 2003, Bamford et al. 2008, Cao *et al.* 2009, Rogers *et al.* 2009, Yang *et al.* 2011). At the instigation of several international NGOs, IUCN commissioned a study on the status of tidal flats of South East and East Asia in the lead up to the 2012 World Conservation Congress in the Republic of Korea (MacKinnon *et al.* 2012). This resulted in the adoption of a resolution on the “*Conservation of the East Asian - Australasian Flyway and its threatened waterbirds, with particular reference to the Yellow Sea*” (WCC-2012-Res-028). This resolution calls on the East Asian - Australasian Flyway Partnership (the Partnership) to act as a “*mechanism for implementing a clear strategy to guide investments, programmes and activities for strengthening habitat and species protection along the EAAF*”.

As a response to the declining status of migratory shorebirds, WWF-Hong Kong is leading a project to develop a strategic conservation plan for priority migratory shorebirds in the EAA Flyway. The main objective of the project is to “*ensure a flyway-wide Conservation Plan is in place to guide governments, conservationists, environmental NGOs and researchers to implement priority actions to conserve migratory shorebirds in the EAA Flyway*”. The project has been divided into the following phases;

- Desktop-based Status Assessment Report (second draft completed)
- Stakeholder Workshop
- Production of the Plan
- Promotion and Implementation of the Plan.

This document reports on the Stakeholder Workshop held in Hong Kong from the 3<sup>rd</sup> - 5<sup>th</sup> December 2013 and identifies the next stages in the production, promotion and implementation of the Conservation Plan.

## **2. Planning for the Stakeholder Workshop**

Discussions on the Stakeholder Workshop were initiated by WWF-Hong Kong at the 7<sup>th</sup> Meeting of Partners of the Partnership in June 2013. This ensured that all Partner Governments, intergovernmental organisations and international NGOs were aware of the project and workshop.

Several key representatives of the international NGOs Partners, while keen to support all conservation planning initiatives, were a little disillusioned with the lack of progress that was being made to address the key threats to migratory shorebirds. These representatives had been contributing to migratory waterbird conservation activities in the Flyway for over 15 years. To engage these key people it was essential that the Stakeholder Workshop focused on a program of strategic on-ground activities. Participants needed to be confident that the Conservation Plan would lead directly to an implementation program.

Before agreeing to take on the role as Workshop Facilitator there was a series of discussions between the proposed facilitator (Doug Watkins) and WWF-Hong Kong. This was important to ensure there was a common understanding of how the Workshop would be structured to maximise the value of the consultation process.

The agreed principles for the Workshop were:

- The strength of the Plan and commitment to its implementations would be highly reliant on the support and involvement of experienced conservation strategists and technical specialists.
- The target groups for the workshop would be National government agencies, international NGOs with an active interest in migratory waterbird conservation, relevant National NGOs from key countries and technical experts.
- The workshop would focus on the most pertinent and pressing issues for the 20 priority populations.
- The Plan would need to cover actions to reduce threats to the priority populations and how it would be implemented.
- Emphasis would be given to weighting participation in the workshop to those countries where the threats were most pertinent and pressing.

A quick analysis of the threat information presented in the draft Prioritisation Report (a report prepared by WWF-Hong Kong to determine the conservation status of migratory shorebird species on a regional scale) was prepared by Doug Watkins (Table 1). The analysis identified five coastal regions in which the priority populations were considered to be under most threat (Figure 1). There were the coastal areas of: Myanmar and Bangladesh (two populations), South-east Asia (one population), southern China (one population), the Yellow Sea (20 populations) and the larger coastal area of North Asia including the Yellow Sea (two populations). The Yellow Sea was clearly identified as the most important strategic area as it was critical for ALL of the priority populations.

Accordingly, in identifying participants there was a need to emphasise participation from China and the Republic of Korea. At the request of WWF-Hong Kong, Doug Watkins developed a preliminary list of organisations and specialists for the workshop. WWF-Hong Kong then issued invitations to the workshop and followed-up with the potential participants.

All of the workshop arrangements in Hong Kong were organised by WWF-Hong Kong. Doug Watkins had an opportunity to visit and check the venue during a separate business trip to China in November.

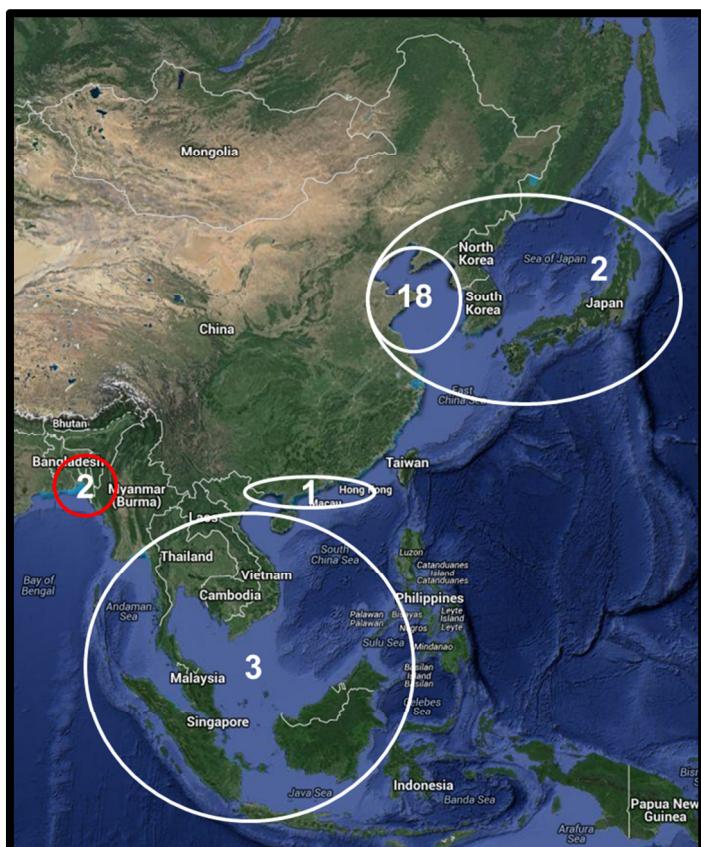
Table 1. Summary of the location of the key threats to the Priority Shorebird Populations

<b>Priority Population</b>	<b>Breeding</b>	<b>Staging</b>	<b>Non-breeding</b>
Bar-tailed Godwit ( <i>baueri</i> )		Yellow Sea	
Bar-tailed Godwit ( <i>menzbieri</i> )		Yellow Sea	
Great Knot		Yellow Sea	
Red Knot ( <i>piersmai</i> )		Yellow Sea	
Red Knot ( <i>rogersi</i> )		Yellow Sea	
Curlew Sandpiper		Yellow Sea	
Far Eastern Curlew		Yellow Sea	
Grey Plover		Yellow Sea	Yellow Sea?
Whimbrel		Yellow Sea	
Lesser Sand Plover ( <i>mongolus</i> )		Yellow Sea	
Lesser Sand Plover ( <i>stegmanni</i> )		Yellow Sea	
Asian Dowitcher	?	Yellow Sea	Coastal South-east Asia?
*Eurasian Curlew	Grasslands?	Yellow Sea?	Yellow Sea
Black-tailed Godwit ( <i>melanuroides</i> )			Yellow Sea
Dunlin ( <i>actites</i> )	?	Yellow Sea?	Yellow Sea?
Spoon-billed Sandpiper	?	Yellow Sea	Myanmar, Bangladesh (Hunting)
Spotted Greenshank		Yellow Sea	Myanmar, Bangladesh (Hunting)
Ruddy Turnstone		Coastal (NE Asia)	
Grey-tailed Tattler		Coastal (NE Asia)	
Greater Sand Plover		Coastal (S China, SEA)	Coastal South-east Asia?

\*Post workshop note: A reassessment using currently published population data showed:

- 1) that Eurasian Curlew does not qualify as a priority species for the Conservation Plan, and,
- 2) Far Eastern Oystercatcher does qualify and will be included in the Conservation Plan.

Figure 1. Critical regions for the conservation of Priority Shorebird Populations



Invitations were accepted from the following groups of organisations and sectors:

**1. Government Agencies**

- National Institute of Biological Resources, Korea
- Agriculture, Fisheries and Conservation Department, Hong Kong SAR Government

**2. Non-Government organisations with international programs**

- WWF-Hong Kong, WWF-China, WWF-Japan
- Wetlands International – China
- Birdlife International
- Royal Society for the Protection of Birds
- Australian Wader Studies Group
- Miranda Naturalist's Trust
- Hong Kong Birdwatching Society

**3. Waterbird Conservation Networks**

- Partnership for the East Asian-Australasian Flyway
- Shorebird Network Korea
- China Coastal Waterbird Census Team

**4. Researchers**

- Beijing Forestry University
- University of Hong Kong
- Global Flyway Network

Invitations were also extended to the Australia Department of Environment, Prof. Ma (Fudan University, Shanghai) and Birds Korea. However these organisations/individuals were not able to attend.

In total there were 23 participants in the workshop (Table 2). Unfortunately Prof. Lei Guanchun of Beijing Forestry University had to withdraw in the days before the workshop because of a Government request to input into another pressing waterbird conservation issue in China.

Table 2. Workshop Participants (in order of introductions)

Dr. Hwa-Jung KIM	Researcher, National Institute of Biological Resources, Korea, Rep. of.
Mr. Spike MILLINGTON	Chief Executive, Partnership for the East Asian-Australasian Flyway, Korea, Rep. of.
Ms. Carrie MA	Wetland and Fauna Conservation Officer, Agriculture, Fisheries and Conservation Department, Hong Kong SAR Government
Prof. Kelin CHEN	Director, Wetlands International - China, China.
Dr. Hong-Yan (Nicky) YANG	Post-doc Researcher, College of Nature Conservation, Beijing Forestry University, China.
Mr. John ALLCOCK	Manager, Mai Po Nature Reserve, WWF-Hong Kong, Hong Kong, SAR.
Mr. Simba CHAN	Senior Conservation Officer, Birdlife International (Asia Division), Japan.
Mrs. Nicola CROCKFORD	International Species Policy Officer, RSPB/BirdLife International, United Kingdom.
Mr. Ken GOSBELL	International Liaison Officer, Australian Wader Studies Group, Australia.
Mr. Chris HASSELL	Project Coordinator, Global Flyway Network, Australia.
Mr. Yung Ki JU	Researcher, Shorebird Network Korea, Korea, Rep. of.
Dr. Michael LAU	Senior Head of Program, Local Biodiversity and Regional Wetlands, WWF-Hong Kong, Hong Kong, SAR.
Mrs. Jing LI	Coordinator, China Coastal Waterbird Census Team, China.
Ms. Ying LI	Species Program Coordinator, WWF-China, China.
Mr. David MELVILLE	Consultant Ecologist, Individual - Researcher, New Zealand.
Mr. Bena SMITH	Conservation Manager, Regional Wetlands, WWF-Hong Kong, Hong Kong, SAR.
Dr. David THOMPSON	Associate Professor, University of Hong Kong, Hong Kong, SAR
Ms. Ying WANG	Marine Program Coordinator, WWF-China, China.
Mr. Doug WATKINS	Consultant Ecologist, Workshop Facilitator, Australia.
Dr. Xianji WEN	Conservation Manager, South China Wetlands, WWF-Hong Kong, Hong Kong, SAR.
Mr. Keith WOODLEY	Shorebird Centre Manager, Miranda Naturalist's Trust, New Zealand.
Mr. Shigeki YASUMURA	Yellow Sea Ecoregion Support Project Leader, WWF-Japan, Japan.
Mr. Yat Tung YU	Research Manager, Hong Kong Birdwatching Society, Hong Kong, SAR.

### **3. Workshop Discussions**

The workshop program was divided into the following seven sessions:

- Introduction of participants
- Conservation Planning Process
- Key Threats to Priority Shorebird Populations
- Potential Implementation Mechanisms
- Implications for the Structure and Content of the Conservation Plan
- Developing the Conservation Plan
- Review the Draft Outline for the Conservation Plan

#### **3.1 Introduction of Participants**

While many of the participants have previously worked together on international shorebird initiatives, for some, this was their first engagement in Flyway level conservation planning. For people new to this type of forum more time was given to enable them to make a short presentation on their work. The introduction presentations are shown in Appendix 2.1.

#### **3.2 Conservation Planning Process**

This session was lead by Doug Watkins and involved a presentation, based on information from the Prioritisation Report, and discussion of the process the group would use to develop the Conservation Plan.

Issues covered were:

- Identification of priority populations
- The framing of the task for the workshop
- Shorebird migration strategies
- Critical areas for the priority populations

From this session there was agreement that the focus of the Plan needed to be on addressing the key threats in that part of the Flyway where there was the largest concentration of the priority populations. It was agreed that the coastal areas of the Yellow Sea in China and the Republic of Korea need to be the geographic focus. Several participants also stressed the importance of following up on coastal management planning in the Democratic Republic of Korea.

#### **3.3 Key Threats to Priority Shorebird Populations**

In this session five participants made presentations on their most recent work in the Yellow Sea. This was to provide the workshop with the latest information of the status of shorebirds and their habitats.

The presentations (Appendix 2.2) were:

- “Introduction and activity of the Korean Shorebird Network” by Yung Ki Ju
- “China Coastal Water Census 2005 – 2013” by Jing Li
- “China’s Yellow Sea coast: status, issues & options” by David Melville
- “One fraction of the issue” by Chris Hassell
- “The Luannan Coast (China): Biodiversity and Development” by Chen Kelin.

Following a brief discussion of the presentations, the workshop formed two breakout groups to discuss the key threats to the priority populations in the Yellow Sea (Appendix 3.1).

### **3.4 Potential Implementation Mechanisms**

On Day 2 the workshop commenced with a discussion of the migratory waterbird conservation frameworks in the EAA Flyway. The background paper for the workshop prepared by Doug Watkins had identified a range of past and existing mechanisms and these are briefly outlined below.

The session had five presentations (Appendix 2.4):

- “Partnership for the East Asian – Australasian Flyway” by Spike Millington
- “EAAF Partnership Shorebird Working Group” by Ken Gosbell
- “EAAFP Yellow Sea Taskforce” by Doug Watkins
- “IUCN Resolution 32 Conservation of the East Asian – Australasian Flyway – and its threatened waterbirds, with particular reference to the Yellow Sea” by Nicola Crockford
- “Yellow Sea Ecoregion Support Project” by Shigeki Yasumura.

#### **3.4.1 International Mechanisms**

##### **The East Asian – Australasian Flyway Partnership (<http://www.eaaflyway.net/>)**

A presentation was made to the workshop by Spike Millington the Chief Executive of the Secretariat (Appendix 2.4).

The Partnership, adopted in the list of the World Summit on Sustainable Development (WSSD) as a Type II initiative - an informal and voluntary initiative, was launched on 6 November 2006, and aims to protect migratory waterbirds, their habitat and the livelihoods of people dependent upon them.

The initiating EAAFP Partners agreed on the following goal and five objectives for the Partnership:

**Goal:** Migratory waterbirds and their habitats in the East Asian – Australasian Flyway are recognised and conserved for the benefit of people and biodiversity.

##### **Objectives:**

- Develop the Flyway Network of sites of international importance for the conservation of migratory waterbirds, building on the achievements of the Asia-Pacific Migratory Waterbird Conservation Strategy networks.
- Enhance communication, education and public awareness of the values of migratory waterbirds and their habitats.
- Enhance flyway research and monitoring activities, build knowledge and promote exchange of information on waterbirds and their habitats.
- Build the habitat and waterbird management capacity of natural resource managers, decision makers and local stakeholders.
- Develop, especially for priority species and habitats, flyway wide approaches to enhance the conservation status of migratory waterbirds.

The Partnership currently has 30 partners including 15 National Governments, four intergovernmental agencies, ten international non-government organisations and one international business sector.

The Partnership has a range of Working Groups and Taskforces to promote collaboration between Partners. Of particular relevance are the following:

- EAAFP Shorebird Working Group (Chair: Ken Gosbell)
- EAAFP Yellow Sea Taskforce (Chair: Doug Watkins)
- EAAFP Spoon-billed Sandpiper Taskforce (Chair: Evgeny Syroyechkovsky)
- EAAFP Monitoring Taskforce (Chair: Doug Watkins)

In 2012 the Partnership adopted its second Implementation Strategy covering the period 2012-2016 (<http://www.eaaflyway.net/the-partnership/strategies/implementation-strategy>).

The Partnership has endorsed the International Single Species Action Plan for the conservation of the Spoon-billed Sandpiper developed under the auspices of the Convention on Migratory Species of Wild Animals ([http://www.cms.int/publications/TechSeries/ts23\\_spoon\\_billed\\_sandpiper.pdf](http://www.cms.int/publications/TechSeries/ts23_spoon_billed_sandpiper.pdf)). Implementation of this Plan is overseen by the EAAFP Spoon-billed Sandpiper Taskforce.

The 2012 IUCN World Conservation Congress specifically encouraged Governments to: use the “*EAAF Partnership, a Ramsar Regional Initiative, as a mechanism for implementing a clear strategy to guide investments, programmes and activities for strengthening habitat and species protection along the EAAF*”: Conservation of the East Asian-Australasian Flyway and its threatened waterbirds, with particular reference to the Yellow Sea. (WCC-2012-Res-028).

### **Bilateral Migratory Bird Agreements (China, Ro Korea, Japan, Australia, Russia, U.S.)**

The Bilateral Migratory Bird Agreements, while limited to bilateral discussions, have been used in the past to strengthen Government mandates for both bilateral action and broader international collaboration. The meetings of the Agreements have developed a practice of bringing together a number of the Bilateral Agreement Parties at one time and location. This enables some general reporting and discussions followed by the individual country to country Agreement Meetings. This makes the Agreement Meetings much more efficient for the National Governments.

### **International Conventions (Ramsar, CBD, CMS)**

The Ramsar Convention, Convention of Biological Diversity, and Convention on Migratory Species of Wild Animals have provided valuable opportunities to promote migratory waterbird and habitat conservation. For example, the EAAF Partnership is recognised as a Regional Initiative under the Ramsar Convention. The Secretariats of the Ramsar Convention and Convention on Migratory Species of Wild Animals are members to the EAAF Partnership. The Secretariat of the Convention of Biological Diversity is anticipated to join in 2014 (pers. comm. Spike Millington).

#### **3.4.2 Previous International Flyway Frameworks in Asia Pacific**

##### **Asia-Pacific Migratory Waterbird Conservation Strategy: 2001-2005 (Asia-Pacific Migratory Waterbird Conservation Committee 2001)**

While the Partnership has provided the lead international framework since 2006 it is important to understand that the Partnership evolved from the Asia-Pacific Migratory Waterbird Conservation Strategy (APMWCS) which was established in 1996. The APMWCS originated from the Japan-Australia Migratory Bird Agreement Meeting in 1993 which agreed to convene an international workshop on the conservation of migratory shorebirds (Weaver 1997). This workshop developed a statement called the “Kushiro Initiative” which called for a

Flyway Strategy, Action Plans and a Network of Sites for shorebirds, crane and Anatidae (Wells & Mundkur 1996, Mundkur & Matsui 1997, Mundkur et al. 1999). The APMWCS and the Network of Sites for Shorebirds was launched at the Ramsar Conference in 1996 held in Australia (Ramsar Resolution 7.3 “Multilateral cooperation on the conservation of migratory waterbirds in the Asia-Pacific region”).

In 2001 the APMWCS was updated for the 2001-2005 period (Asia Pacific Migratory Waterbird Conservation Committee 2001).

Two specific Action Plans for migratory shorebirds were developed under the APMWCS; for the period 1996-2000 (Watkins & Mundkur 1997) and 2001-2006 (Shorebird Working Group 2001).

### **3.4.3 National Shorebird Conservation Plans in the EAA Flyway**

Australia is the only country that has developed a national conservation plan for migratory shorebirds (Australian Department of the Environment and Heritage, 2006). This plan is currently being updated (pers. com. Department of the Environment, Australian Government).

### **3.4.4 Shorebird Conservation Planning in the Atlantic Flyway**

Workshop participants were also provided with information on the U.S. Shorebird Conservation Plan (Brown *et al.* 2001), Strategy for Implementing the U.S. Shorebird Conservation Plan (2012–2016) (U.S. Shorebird Conservation Plan Council 2012), Atlantic Flyway Shorebird Business Strategy 2013 - Phase 1 (Manomet Center for Conservation Science and US Fish and Wildlife Service) and Alaskan Shorebird Conservation Plan.

### **3.4.5 National Mechanisms for Implementation**

Participants were divided into two national groups to discuss national mechanisms. Flip chart notes are given in Appendix 3.2.

The limited experience of participants with Government mechanisms in the Republic of Korea and China showed in this session. The national, regional and local mechanisms and operation of the Government in both countries are very difficult to grasp and understand. The groups had only a few participants that were knowledgeable in this area and so much of the breakout-session time was invested in explaining the mechanisms and operations to other participants.

## **3.5 Implications for the Structure and Content of the Conservation Plan**

There was a variety of feedback on the range of conservation planning for migratory waterbirds.

While several participants were impressed with the approach of the North American planning it was recognised that it was developed in a different context to the EAAF. Key differences being the high level of engagement of the US National Government agencies in the planning process and the funding commitments that accompanied that engagement. This has occurred in the past in the EAAF, at the time of the Asia-Pacific Migratory Waterbird Conservation Strategy, when the governments of Japan and Australia took leadership roles in the development of the planning documents and resourcing their implementation.

An additional point highlighted was that the Asia-Pacific Migratory Waterbird Conservation Strategy and associated Shorebird Action Plan were “generic” in their approach – strengthening the

knowledge base, capacity building, awareness raising. The Partnership Implementation Strategy was also considered to be generic in nature.

Participants were strongly of the opinion they wanted to be involved in developing a Conservation Plan, for priority shorebird populations, that was focused on activities at specific sites around the Yellow Sea.

A limitation of the workshop was that lack of direct representation of the national government partners of the Partnership for China (Ministry of Forestry) and the Republic of Korea (Ministry of Environment). The value of having these representatives was recognised in planning the workshop, however, it is very difficult to obtain this level of engagement for an NGO-lead planning workshop.

If the Partnership is to be used as a formal framework for the Conservation Plan it will be essential that the Ministry of Forestry (China) and the Ministry of Environment (Republic of Korea) are engaged in the finalisation of the Conservation Plan in relation to site based activities in their respective countries. The Partnership would only be able to adopt a Conservation Plan which has specific site based actions if the respective National Government Partner was supportive.

In planning the Stakeholder Workshop it was recognised that the workshop could be used to create a “collaboration agenda” (i.e. draft Conservation Plan) and that this could then be taken to the Ministry of Forestry (China) and the Ministry of Environment (Republic of Korea) for discussion and review. This would enable the Ministries to consider and review a specific proposal and then to identify the elements which they endorsed for collaboration.

### **3.6 Developing the Conservation Plan**

Participants were asked to identify a minimum of one potential collaboration site in Republic of Korea and one in China. Sites needed to be among the most important for the priority populations in the Yellow Sea (see Table 2), under significant threat and where there was existing collaborative work to build on.

While only one site was proposed in the Republic of Korea, participants initially identified three sites and one region in China. With further discussion one of the sites in China (Liaodong Bay, Panjin, Liaoning) was dropped from the list.

The proposed collaboration sites are:

1. Geum Estuary (Seocheon County / Gunsan City)
2. Yalu Jiang (Donggang County, Dandong, Liaoning)
3. Luannan Coast (Luannan County, Tanghai, Hebei)
4. Jiangsu Coast (including mouth of the Yangtze)

Participants then divided themselves into four groups to identify threats, opportunities and stakeholders at each site (Appendix 4). This information, and the follow-up with the workshop participants, will form the core of the proposed collaboration activities in the Conservation Plan.

Table 2. Most Important Sites for the EAAF Priority Populations (International Important for >5 priority species, **bold** = selected collaboration sites)

Country	Site Name	No. of priority species	Protected Area?
China	<b>Luannan Coast (Luannan, Hebei)</b>	10	No
China	<b>Yancheng Nature Reserve (Yancheng, Jiangsu)</b>	10	Yes
China	Shi Jiu Tuo/Daqing He (Laotong, Hebei)	9	No
China	Huang He Delta Nature Reserve (Dongjing, Shandong)	8	Yes
China	<b>Yalu Jiang Nature Reserve (Donggang, Liaoning)</b>	7	Yes
China	Chongming Dongtan Nature Reserve (Chongming, Shanghai)	7	Yes
China	Shuangtaizihetou Nature Reserve (Panjin, Liaoning)	6	Yes
Korea, Ro	<b>Geum River Estuary (Gunsan/Seocheon)</b>	9	Part
Korea, Ro	Namyang Bay (Hwaseong)		?
Korea, Ro	Yeongjong Island (Incheon)	8	No
Korea, Ro	Ganghwado Island (Incheon)	6	?
Korea, Ro	Han River Estuary (Gimpo)	5	?
Korea, Ro	Nakdong Estuary (Busan)	6	Part?

Figure 2. Location of proposed collaboration sites



### **3.7 Review the Draft Outline for the Conservation Plan**

In the review session participants discussed the primary mechanism for adoption of the Conservation Plan, how the Conservation Plan could be developed over the next few months and the timetable of important meetings to promote the draft plan, its finalisation and adoption (Appendix 3.3).

Participants agreed that the next Meeting of Partners of the EAAF Partnership (MoP 10) provided the most strategic framework for the adoption and implementation of the Conservation Plan for priority shorebirds. This Meeting is planned for January 2015 in Kushiro, Japan. This provided adequate lead-in time to gain engagement and endorsement from EAAFP Partners.

The timing of key international meetings that precede MoP 8 include:

- late 2014      Bilateral Bird Agreement meetings anticipated to be in China (involving China, Korea, Ro, Japan, Australia)
- Oct 2014      CBD CoP 12 in Pyeongchang, Republic of Korea
- Nov 2014      IUCN World Parks Congress in Sydney, Australia
- Nov 2014      CMS CoP 11 in Guayaquil, Ecuador

In particular, the Bilateral Migratory Bird Agreement meetings in China offer the potential for bilateral discussions between Governments on collaboration to finalise and implement a conservation program in the Yellow Sea for the priority shorebird populations. NGO groups, with offices in the relevant counties, would have the opportunity to promote the draft Conservation Plan to their National Government in the lead up to the bilateral meetings.

The identified opportunities will be worked up as part of preparing the Conservation Plan.

To complete the session, breakout groups were formed to identify the issues that need to be addressed but are beyond the site-based approach that had been worked on in the previous session (see Section 3.5). The items identified include; awareness raising, capacity building, enhanced monitoring, migration research and best practise in coastal management (Appendix 3.4). These element will be reviewed and incorporated into the Conservation Plan.

## **4.0 Development and Implementation of the Conservation Plan**

The Stakeholder Workshop has provided a sound basis for the development of the Conservation Plan for priority shorebirds.

Importantly, the workshop engaged two Government agencies, eight NGOs with international programs for the conservation of migratory shorebirds, the EAAF Partnership Secretariat at the highest level, two key networks of national waterbird counters in China and the Republic of Korea, and researchers from two Universities and one international research network. Also participating was the Chair of Shorebird Working Group and Chair of the Yellow Sea Taskforce and the Monitoring Taskforce of the Partnership.

Key directions set by workshop participants for the development of the Conservation Plan were:

### **Implementation framework**

- The draft Conservation Plan be developed with the planned engagement and, following discussion and review, the subsequent endorsement of Ministry of Forestry (China) and Ministry of Environment (Korea, Ro).
- Endorsement of the Conservation Plan at MoP 8 of the EAAF Partnership in January 2014.

### **Elements of the Plan**

- Focused on making the most strategic contribution to reducing the decline of the 20 priority shorebird species.
- The implication of this is that the Yellow Sea is the priority geographic region within the Flyway for action for the priority shorebird populations.
- Collaborative actions be initially focused at three sites and one region in the Yellow Sea region
- Actions build on existing shorebird conservation and coastal management activities occurring at these sites.
- The sets of collaboration sites be developed with view to their replication in other local government and coastal Provincial/Prefectural Governments around the Yellow Sea.
- The Plan also identify a broader range of key activities to complement the work within the Yellow Sea.
- Engagement of key international and national organisations in identifying collaboration activities for the four sites.

### **Timetable**

15 March 2014	Completion of the Draft Conservation Plan
	<ul style="list-style-type: none"><li>• Consultation with Government in China and the Republic of Korea and other Partners of the EAAF Partnership</li><li>• Review of the draft Conservation Plan</li></ul>
15 August 2014	Revised Draft Conservation Plan available to consultation in international meetings
	<ul style="list-style-type: none"><li>• Specific follow-up by NGO's to promote the Conservation Plan to EAAF Partners</li><li>• late 2014      Bilateral Bird Agreement meetings in China (involving China, Korea, Ro, Japan, Australia)</li><li>• Oct 2014      CBD CoP 12 in Pyeongchang, Republic of Korea</li><li>• Nov 2014      IUCN World Parks Congress in Sydney, Australia</li><li>• Nov 2014      CMS CoP 11 in Guayaquil, Ecuador</li></ul>
15 December	Submission of the Conservation Plan for inclusion in Agenda for MoP 8 of the EAAF Partnership.

## 5.0 References

- Alaska Shorebird Group. 2008. *Alaska Shorebird Conservation Plan. Version II.* Alaska Shorebird Group, Anchorage, AK.
- Asia-Pacific Migratory Waterbird Conservation Committee. 2001. *Asia-Pacific Migratory Waterbird Conservation Strategy: 2001-2005.* Wetlands International – Asia Pacific. Kuala Lumpur, Malaysia 67 pp.
- Australian Department of the Environment and Heritage. 2006. *Wildlife Conservation Plan for Migratory Shorebirds 2006 – 2011.*
- Brown, S., C. Hickey, B. Harrington, and R. Gill, eds. 2001. *The U.S. Shorebird Conservation Plan, 2nd ed.* Manomet Center for Conservation Sciences, Manomet, MA.  
[www.lmvjv.org/library/usshorebirdplan.pdf](http://www.lmvjv.org/library/usshorebirdplan.pdf)
- MacKinnon, J., Verkuil, Y.I. & Murray, N. 2012. *IUCN situation analysis on East and Southeast Asian intertidal habitats, with particular reference to the Yellow Sea (including the Bohai Sea).* Occasional Paper of the IUCN Species Survival Commission No. 47. IUCN, Gland, Switzerland and Cambridge, UK. ii + 70 pp.
- Manomet Center for Conservation Science and US Fish and Wildlife Service. 2013. *Atlantic Flyway Shorebird Business Strategy 2013 – A call for Action Phase 1.*  
[www.manomet.org/program/shorebird-recovery-project/atlantic-flyway-shorebird-conservation-business-strategy](http://www.manomet.org/program/shorebird-recovery-project/atlantic-flyway-shorebird-conservation-business-strategy).
- Mundkur, T. & Matsui, K. 1997. *The Asia-Pacific migratory waterbird conservation strategy: 1996-2000.* In: J. van Vessem (ed) Determining priorities for waterbird and wetland conservation. Proceedings of Workshop 4 of the International Wetlands and Development Conference, Kuala Lumpur, 9-13 October 1995. Wetlands International, Kuala Lumpur: 57-66.
- Mundkur, T., Matsui, K., Chan, S., Miyabayashi, Y. & Watkins, D. 1999. *Promoting migratory waterbird conservation in the Asia-Pacific.* In: A. Beintema & J. van Vessem (eds) Strategies for Conserving Migratory Waterbirds. Proceedings of Workshop 2 of the Second International Conference on Wetlands and Development, Dakar, Senegal, 8-14 November 1998. Wetlands International Publication No. 55, Wageningen, The Netherlands: 6-12.
- Shorebird Working Group of Wetlands International – Asia Pacific. 2001. *Action Plan for the Conservation of Migratory Shorebirds in the Asia Pacific: 2001-2005.*
- U.S. Shorebird Conservation Plan Council. 2012. *Strategy for Implementing the U.S. Shorebird Conservation Plan (2012–2016).* [www.nabci-us.org/mtg\\_2012-08/USSCP%20Strategic%20Plan.docx](http://www.nabci-us.org/mtg_2012-08/USSCP%20Strategic%20Plan.docx)
- Watkins D & T Mundkur 1997. *Developing an Action Plan for the Conservation of Migratory Shorebirds in the Asia-Pacific.* Straw, P. (ed) 1997. Shorebird Conservation in the Asia-Pacific Region, AWSG, Melbourne. Based on papers presented at a symposium held on 16-17 March 1996 in Brisbane, Australia. Australasian Wader Studies Group.
- Weaver K. 1997. The Kushiro Initiative. Straw, P. (ed) 1997. *Shorebird Conservation in the Asia-Pacific Region, AWSG, Melbourne.* Based on papers presented at a symposium held on 16-17 March 1996 in Brisbane, Australia. Australasian Wader Studies Group.
- Wetlands International, 2010. *State of the World's Waterbirds, 2010.* (Compiled by Simon Delany, Szabolcs Nagy and Nick Davidson). Wetlands International, Ede, The Netherlands.

# Appendix 1 Workshop Program

Conservation Planning for Priority Shorebirds of the East Asian – Australasian Flyway

Workshop Program (17 Nov.)

**Organizer:** WWF-Hong Kong

**Workshop dates:** Tuesday 03 December to Thursday 05 December 2013

Workshop facilitator: Mr. Doug WATKINS

**Participants:** Representatives from; Australian Wader Studies Group, Beijing Forestry University, Beijing Normal University, BirdLife Asia, China Coastal Waterbird Team, Global Flyway Network, Hong Kong Birdwatching Society, Korean National Institute Biological Research, Korean Shorebird Network Group, Miranda Naturalist's Trust, Partnership for the East Asian - Australasian Flyway, Wetlands International – China, WWF-China, WWF-Hong Kong, WWF-Japan.

Language: English

Workshop objectives:

- To engage key individuals and organisations involved in shorebird conservation in the development of a plan to address key threats to priority populations of migratory shorebird in the EAAF.
- To develop the Plan in a way that will maximise its up-take and implementation within the existing frameworks and initiatives in the EAAF.

Workshop venue:

Eaton, Hong Kong - Diamond Ballroom VIII on B1/F  
380 Nathan Road, Kowloon  
Tel : (852) 2782 1818; <http://hongkong.eatonhotels.com/>

Workshop organizer:

Mr. Bena SMITH, Conservation Manager, Regional Wetland Projects, WWF-Hong Kong  
[bsmith@wwf.org.hk](mailto:bsmith@wwf.org.hk), W: (852) 3193 7511, Skype: bena.smith

Information:

Around 22 people will be involved in the workshop. A combination of plenary and breakout sessions over the three days will be employed to develop an outline for a conservation plan for the 20 priority shorebird populations.

- The workshop program will commence daily at 09:00 and finish at 17:00.
- Mid-morning break, lunch and mid-afternoon break provided at the venue.
- Dress attire: Day 1 morning, smart for group photo, thereafter smart casual.

## Workshop itinerary:

Morning	Afternoon
<b>Day 1 (3 Dec.)</b>	
<ul style="list-style-type: none"> <li>• Opening remarks by Mr. Adam KOO – CEO, WWF-Hong Kong</li> <li>• Introduction of participants</li> <li>• Session 1 : Conservation Planning Process <ul style="list-style-type: none"> <li>○ Flyway context</li> <li>○ Review of population prioritisation</li> <li>○ Next steps in conservation planning</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Session 2 : Key Threats to Priority Shorebird Populations <ul style="list-style-type: none"> <li>○ Key sites, timing and nature of threats <ul style="list-style-type: none"> <li>■ Korea's shorebird monitoring (Mr. Yung Ki JU)</li> <li>■ China waterbird census (Mrs. Jing LI / Mr. Yat Tung YU)</li> <li>■ China tidalflat snapshot (Mr. David MELVILLE)</li> <li>■ North West Bohai Wan (Ms. Ying WANG, Mr. Chris HASSELL, Prof. Kelin CHEN)</li> <li>■ Other parts of the Flyway</li> </ul> </li> <li>○ Options for reducing threats</li> </ul> </li> </ul>
<b>Day 2 (4 Dec.)</b>	
<ul style="list-style-type: none"> <li>• Session 3 : Potential Implementation Mechanisms <ul style="list-style-type: none"> <li>○ Existing mechanism and potential for their use</li> </ul> </li> <li>▪ EAAF Partnership (Mr. Spike MILLINGTON)</li> <li>▪ EAAF Partnership Shorebird Working Group (Mr. Ken GOSBELL)</li> <li>▪ EAAF Partnership Yellow Sea Taskforce (Mr. Doug WATKINS)</li> <li>▪ IUCN WCC resolution follow-up</li> <li>▪ Yellow Sea Ecoregion Support Project (Mr. Shigeki YASUMURA)</li> <li>▪ Bilateral migratory bird agreements</li> <li>▪ Conventions (Ramsar, CBD)</li> <li>▪ National mechanisms</li> <li>▪ Other <ul style="list-style-type: none"> <li>○ Need for new mechanisms?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Session 5 : Developing the Conservation Plan <ul style="list-style-type: none"> <li>○ Addressing key threats across a network of critical sites <ul style="list-style-type: none"> <li>■ Preliminary identification of a "Network of Sites" for the target populations (information provided by Dr. Richard FULLER, Queensland University)</li> </ul> </li> </ul> </li> </ul>
<b>Day 3 (5 Dec.)</b>	
<ul style="list-style-type: none"> <li>• Session 5 (cont.) : Developing the Conservation Plan <ul style="list-style-type: none"> <li>○ Supporting actions</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Session 6 : Review the Draft Outline for the Conservation Plan</li> <li>• Additional matters</li> <li>• Next steps</li> </ul>
<b>Day 4 (6 Dec.)</b>	
<ul style="list-style-type: none"> <li>• Field trip to the Mai Po Nature Reserve</li> </ul>	<ul style="list-style-type: none"> <li>• Guests depart</li> </ul>

## **Appendix 2 Presentations to the Workshop**

**See separate PDF of Appendix 2**

**Appendix 2.1 Introductions**

**Appendix 2.2 Conservation Planning Process**

**Appendix 2.3 Key Threats to Priority Shorebird Populations**

**Appendix 2.4 Potential Implementation Mechanisms**

Appendix 2.1 Introductions (21 pages)

Appendix 2.2 Conservation Planning Process (7 pages)

Appendix 2.3 Key Threats to Priority Shorebird Populations (59 pages)

Appendix 2.4 Potential Implementation Mechanisms (32 pages)

Total pages = 119

## **Appendix 3 Documentation from the Workshop Breakouts**

# **Documentation from the Workshop Breakouts**

A PDF of the Flipcharts from the Workshop Breakouts is available.

Follow-up with workshops participants on the details from the Workshop Breakouts will occur during the drafting of the Conservation Plan

## **Appendix 3.1 Threats, Potential Opportunities, Solutions, General ideas**

### **Group 1**

#### **1.1 Threats**

- Habitat Loss
  - Aquaculture
  - Industrial Development
  - Spartina
  - Wind Farms and Tidal Power Plants
  - Tourism
- Disease
- Pollution
- Disturbance
- Competition from food (birds vs. man)
- Hunting
- Climate Change
  - Increased sea level
  - Storm surge
  - Indirect
- Ecosystem Services
- Prioritisation

#### **1.2 Opportunities / Solutions**

- Raising awareness (Public and Government)
- Better management of existing/remaining habitats
- Restoration eg. *Spartina*
- Alliances with fisherfolk for better habitat management
- Increase networking / Stakeholder engagement
- Demonstration projects
- Ecological tourism
- Proactive engagement e.g. with World Bank on North Korea
- Corporate partnerships
- Ecosystem services
- Need to be opportunistic

#### **1.3 Data Issues**

- Satellite tags/data loggers – better understand migration strategies
- Survey methodologies standardised – to enable robust analysis
- “Carrying capacity”
- How much habitat will remain in 2020?
- Data sharing
- Benthos studies
- Coverage of survey areas (also SE Asia)
- Strategy for raising profile (why/who/how) of the issue
- Training in ID of species (including sub-species)

## Group 2

### 2.1 Key Threats

- Reclamation
- Overfishing – competition for benthos
- Climate Change – sea levels/ storm damage
- Spartina
- Lack of Government co-ordination
- Oil spills
- Pollution
- Hunting
- Lack of understanding / knowledge gaps
- Mismanagement of resources
- Economic models – rewarding GDP growth rather than environment
- Bureaucracy
- Poor education of public
- Lack of public awareness
- Changes in sedimentation patterns in Yellow Sea – caused by damming of rivers, water extraction, coastal land claim
- Human disturbance to birds (fisherfolk activities)
- Windfarms
- Chance
- Inconsistency? Consistency of Government direction

### 2.2 Responses

- Site selection for Protected Areas (including buffer areas)
- Freeze on coastal development (especially in priority areas)
- Improve legislation
- Purchase (*obtain the land use right for*) priority areas?
- Improve coordination of Government (how?)
- Coordination of local, provincial, national government
- Integrate coastal zone management
- Improved public participation in decisions
- Improve social/public awareness and understanding
- Joining forces with local communities who depend on the coastal zone
- Improve attitude of western consumers – education/ trade regulation
- Bilateral discussion with Governments
- Controlled/managed coastal tourism
- Promoting economic benefits of environment (to local residents)
- Improved EIA process
- Improved monitoring
- Filling knowledge gaps
  - Populations, food sources, migration strategies
  - Impact of displacing populations
  - Precise habitat requirements
- Raising as intergovernmental agenda
- Media engagement – more & better organised (social media)

## **Appendix 3.2 National Mechanisms for Shorebird Conservation**

### **Republic of Korea**

#### Government Organisations - National

- Ministry of Environment
  - Biodiversity
  - National Parks
  - NIBR
- Ministry of Fisheries
  - Ocean Ecology
  - KIOST
  - KOEM

#### Government Organisations - Local

- Incheon
  - Ocean and Island Division
  - Nature and Ecology Division
- Seocheon
- Gunsan
- Shinan
- Gochang

#### ENGO

- Korean Shorebird Network
  - NIBR, KOEM, Shinan Local Government, Local NGO
- Birds Korea
- Green Korea
- KFEM

#### Others

- EAAFP
- Ramsar Regional Centre
- Kyunghee University
- Jeonnam University

#### National Workshop: March 2014

- Shorebirds and their habitats
- Outcome: Action Plan

### **China**

Forestry – county, city, provincial, national

Nature Reserve process

    Proposal

    Wildlife Inventory

    County/City/Provincial

Establish new Protected Areas (Nature Reserves, Wetland Parks)

Adjustments of Nature Reserve Boundaries for better protection balancing local needs

Economic motivation of local government to establish protected areas

Too many departments to manage a Nature Reserve

Ecological Compensation

Environment Impact Assessment

## **Appendix 3.3      Implementation Options**

### EAA Flyway Partnership

- Need for all partners to fully engage with implementation
- Build and sustain momentum

### **Upcoming events:**

late 2014	Bilateral Mig. Bird (CHI, KR, JAP, AUS, RUS), China
Oct 2014	CBD, Pyeongchang, Ro Korea
Nov 2014	World Parks Congress, Sydney Australia
Nov 2014	CMS, Guayaquil, Ecuador
Jan 2015	EAAFP MoP10, Kushiro, Japan

### **Targets**

15 March 2014	Consultation draft “plan”
15 August 2014	Pre-Draft (for meetings)

### **CBD CoP Korea October, 2014**

1. Global best practice – Coastal Wetland Restoration “Launch”
2. Shorebird “plan”

### **Side Events**

CAFF  
CBD joining EAAFP

Pyeongchang Road Map  
Friends of Aichi Targets  
MoEK profiling of shorebird “plan”?????

## **Appendix 3.4      Beyond Site Based Approaches**

### **Within the Yellow Sea Ecoregion**

1. Standardised Monitoring System (birds and habitat) (**EAAFP**)
2. Data sharing / database (P shorebird plan and EAAFP)
3. Improved knowledge base (P shorebird plan and EAAFP)
  - Migration studies (sat tagging and beyond, southward migration)
  - Site-based threats
  - Tidal flat studies
  - Predictive modelling
4. Training and capacity building - beyond sites (**P shorebird plan and EAAFP**)
5. Improved communication among Govt, Non-government, academic groups (website for Yellow Sea – language) (**P shorebird plan and EAAFP**)
6. R & D programs (*P shorebird plan and EAAFP*)
7. Approach to DPR Korea (*P shorebird plan and EAAFP*)
8. National policy implementation (**P shorebird plan**)
9. International cooperation on policy, support to national policy and actions (CBD) (Aichi targets, Wadden Sea) (**P shorebird plan and EAAFP**)
10. Sharing best practice e.g. restoration, fisheries, land claim (**P shorebird plan**)
11. Raise profile of crisis: Flyway (national, internationally, beyond EAAF) including Information on trends and predictions. (**P shorebird plan and EAAFP**)
12. Establish platforms/networks for information sharing (link to webs site see 5) (**P shorebird plan and EAAFP**)
13. Measure results of meeting shared with Govts and others (**P shorebird plan and EAAFP**)
14. National meeting focused on implementation e.g. Resolution 28 and national commitments e.g. Red line, Aichi targets (**P shorebird plan**)

### **Other Parts of the Flyway**

1. Networking of Site Managers
  - Communication
  - Site manager workshops
2. Hunting
  - Emphasis for Spoon-billed Sandpiper
  - Broader impact of hunting on migratory waterbirds
3. Major information gaps on shorebird numbers between South China and NW Australia (non-breeding and staging) (exceptions include Gulf of Thailand, Malaysia, parts of Indonesia)
4. Promote increased national and collaborative surveys
5. Collation of information /index of national policies for migratory waterbirds and their habitats (EAAFP Sec. is seeking to do this)
6. Shorebird use and threats in central East Asian Steppe
7. Information gaps on trend data for shorebirds
8. Enhance monitoring at internationally important sites for priority populations
9. Strengthen links with researchers to promote research on key ecological and social questions.

## Appendix 4 Proposed Collaboration Sites in the Yellow Sea

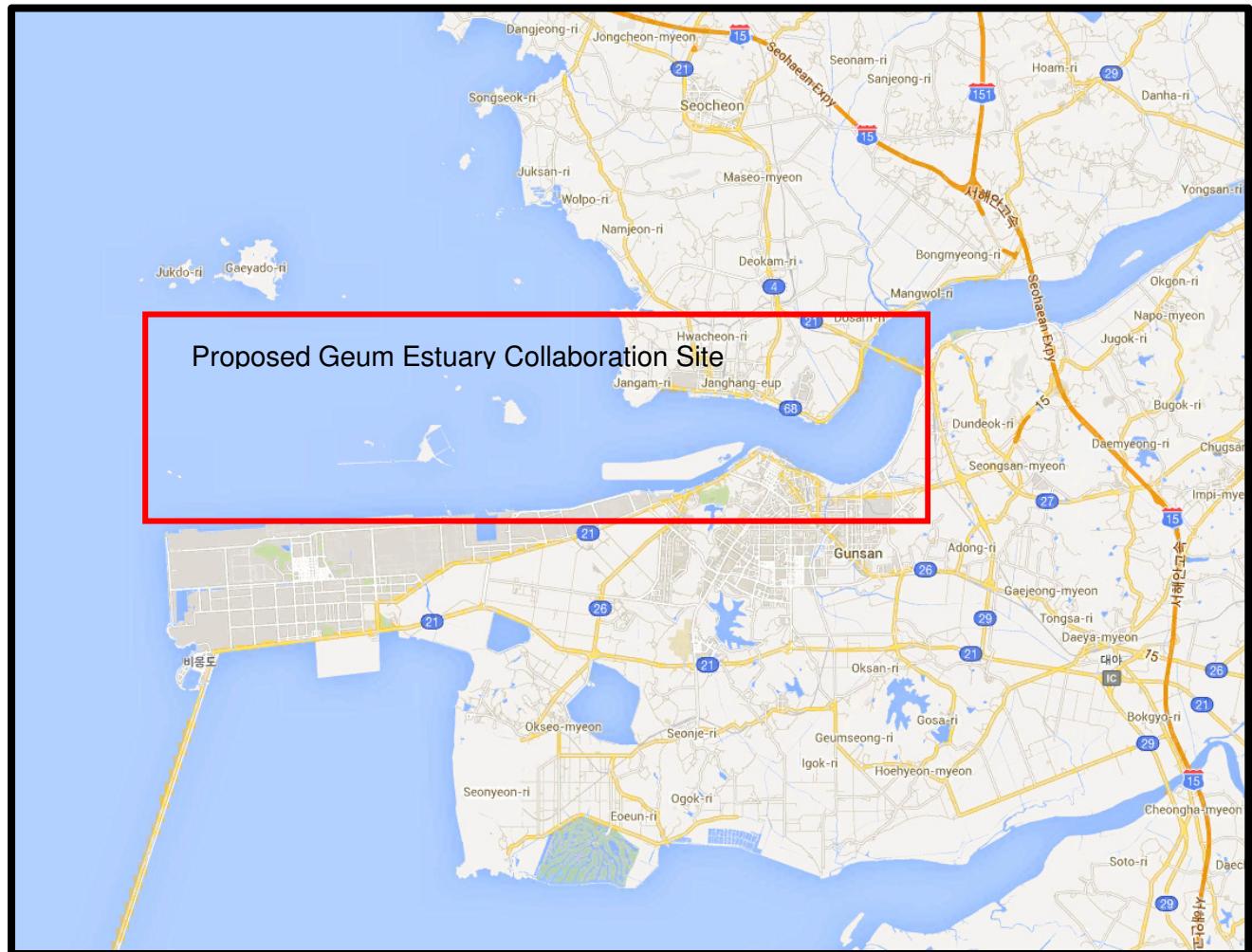
Location of Proposed Collaboration Sites around the Yellow Sea coast



## Appendix 4.1 Geum Estuary (Seocheon County / Gunsan City)

Participants: Dr. Hwa-Jung KIM, Mr. Yung Ki JU, Mr. Bena SMITH, Mr. Spike MILLINGTON

Republic of Korea: Seocheon County and Gunsan City



Elements:

1. Raise awareness of local communities, local government of international importance, endangered waterbirds, and international attention. (LC)
2. Potential benefits – highly productive for shellfish and fisheries. Develop an appropriate approach. (LC)
3. Yubu Island – need to create high-tide roost, minimise disturbance to birds (including from photographers) [develop a hide?]. (M, NG, LC)
4. How to restore saltpans as high-tide roost (many different owners). (Central Government, \$)
5. Address issue of barrage to restore tidal flows. (Share experience of other counties)
6. Saemangeum under national control so need to develop an appropriate approach. (Develop a plan with benefits and owners. MoE, Wetland Centre KEI)

7. Recommend creation of (part of) Saemangeum to restore/manage shorebird habitat by opening sea wall gates to increase tidal flow. (Develop a plan with benefits and owners. MoE, Wetland Centre KEI)
8. Focus on Spoon-billed Sandpiper, Spotted Greenshank (research and monitoring). (NIBR & NGO)
9. Develop a stronger understanding of benthos and sediments. (NIBR & NGO)
10. Build on ecotourism plans and projects to support and benefits to local people (cooperation, local income generation). (Support existing project)
11. Encourage stakeholder group meetings. (Build a local coalition, LG/NGO)
12. Develop an education program for local people about the ecosystem. (Local Government / NGO program)
13. Share (selective) experience with other places – e.g. Seocheon, Cheonsu, Muan; Mai Po (visitor management, Wadden Sea. (NGOs, Local Government, INGO's, KOEM)
14. Expand legally protected area to link up Ramsar sites and develop management plan e.g. MPA, WHS. (Local Government, MoF, MoCT)
15. Encourage local NGO's to work together in the area. (NGO's)
16. Ecological compensation/mitigation for development areas (?)
17. Seocheon – Gunsan work together for cooperative sustainable management of area. (NGO, Central Government and others)
18. Include recommendations from international workshop in Sept 2012. (EAAFP & NGOs)
19. Integrated conservation plan for Seocheon County. (NGO's, INGOs, Local Government)
20. RioTinto/BirdLife International cooperation. (EAAFP)
21. ???? on Seocheon City adopting Oystercatcher as its symbol.
22. Sister Site Seocheon – Sungei Buloh (Singapore).
23. New Local Government (mayors) in Seocheon and Gunsan in June 2014.

## Appendix 4.2 Yalu Jiang (Dandong, Liaoning)

Participants: Ms. Ying WANG, Mr. Keith WOODLEY, Mr. Shigeki YASUMURA

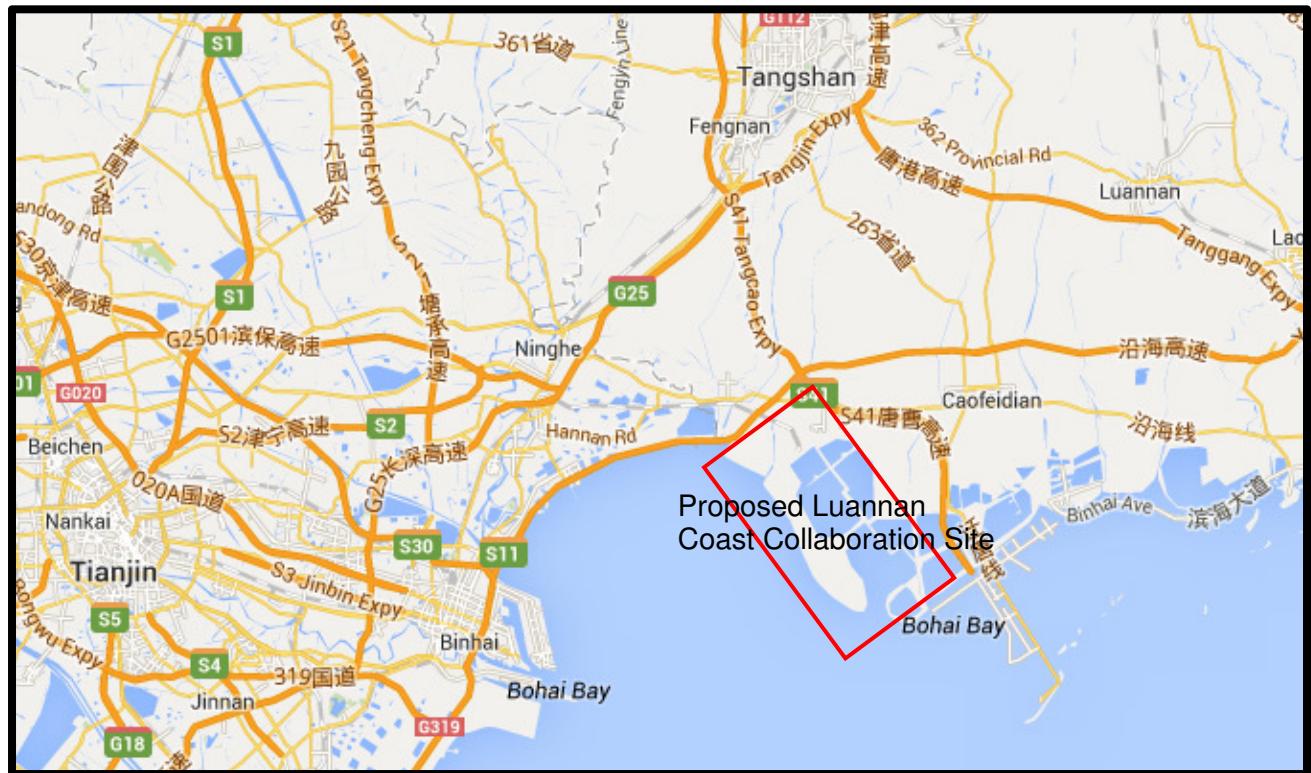


- Inspire local stakeholders (including local government) about shorebirds
- Build a local stakeholder network
- Build the ecosystem story of the site and its inter-relationships with local people
- Build a stronger knowledge base on shorebirds and the functioning of the habitat they use
- Work with stakeholders to identify threats to ecosystem services (including shorebirds) and identify potential responses
- Complete review of future planning for the area
- Fisheries - MSC Certification
- Health of tidalflats
- Secure food source for shorebirds
- Stakeholder ownership
- Investigate the concerns of fisherfolk that shorebirds are reducing their shellfish take.
- Develop relationship with the Port Authority
- Raise awareness of the international biodiversity of the location
- Understand future plans of the Port
- Engage the Port Authority in joint planning to protect the Nature Reserve
- Investigate option for the use of dredge spoil to create shorebird habitat
- Sea cucumber farms
- Reduce the disturbance of shorebirds by people – through raising awareness and managed roosts
- Measures for compensation of fishers for taking some ponds out of production for roost sites
- Sustainable component
- Reduce/prevent further habitat loss
- Secure high tide roosts

- Sustainable fisheries
- Successful partnership with local community, Port and other stakeholders
- Ecotourism or other ways to preserve YJ estuary
- Dandong communities are inspired and proud of maintaining shorebirds and their coastal habitats
- Develop/acquire the data
  - Shorebird surveys in May and southward migration
  - Benthos survey continue by year
  - Feeding ecology of shorebirds
  - Surveys on both sides of the border
- Develop relationships with Government (Dandong City, Liaoning Province, Shenyang City? - Environment, Oceans, Agriculture and Forestry)
- Develop/revise the local regulation responsible for coastal wetlands and shorebird protection
- Follow-up on the Ramsar nomination process
- City/Provincial Government - Management Plan for the Nature Reserve, Secure high-tide roosts
- Local Level
  - Launch 10 year Report (MNT-YJNNR) with stakeholders
  - Develop relationship with Donggang Port
  - Local Environment Department
  - Reserve staff
  - Plan for the future development of the Port
  - Sedimentation changes from the development of the Port
  - Promote sustainable clam fishery
  - MSC, ASC, FIP
- Create/manage secure high-tide roosts
- Raise public awareness
- Value of shorebirds, Migration story, Ecosystem services

## Appendix 4.3 Luannan Coast (Tanghai, Hebei)

Participants: Mr. Chris HASSELL, Dr. Hong-Yan YANG , Prof. Kelin CHEN



### Importance

- Populations of migratory shorebirds (and gulls)
- Supporting fishing community
  - Shellfish
  - Fish/crustaceans (intertidal area)
  - Nursery ground for marine resources (fish & shrimp)
- Saltworks
  - Employment / revenue
  - Resource for chemical industry in Nanpu
  - Habitat for migrant birds
- (Oil resource)

### Threats

- Oil extraction and refining
  - Land claim
  - Oil spills/accidents
- Industrial development
  - Real, ongoing, current
  - Habitat loss
  - Habitat degradation (close to claimed land)
- Fishing
  - Increase sustainability
  - Maintain existing relationships
  - Importance of support from these stakeholders
  - Low threat relative to industry
  - Illegal nets

- Disturbance to feeding birds – direct from fishers and indirect from nets
  - Shell fishery is removing benthos
  - Overharvesting (pumping up of top layer of inshore sediment)
- Conversion of saltworks to sea cucumber aquaculture – (ponds would be managed for a stable water level)
- Pollution
  - Alkali from coastal chemical waste pond
- Change in sedimentation patterns/tidal flows
  - Pumping related to shellfish harvest
  - Land claim
  - Construction of port facilities
  - Road to oil pumping islands

### Opportunities

- Fishing - support idea of maintaining because this can be used to protect the fishery
- Saltworks – water level management (current water level management is good for birds)
- Shellfish
  - Harvesting after migration of shorebirds
  - Management of fishery (already exists)
  - Sustainable fishery
  - Market for fishery – local (standard good? Pollution?)
  - Timing of the harvesting for shrimp farming (post northward migration of Red Knot)
- Chemical Plants
  - Waste management
- “Offset” funding from industry (chemical & oil)
  - for education and research

### Stakeholders

- Fishers
- Industry (oil, salt, chemical)
- Conservationists
- Local community
  - Food supply
  - Work opportunities
- Local Governments
- Luannan County, New Caofidian Administration, Tangshan City
- Hebei Provincial Government
  - Forestry
  - Justice

The local Government and community take inspiration from retaining links to their heritage along with welcoming the new industrial future

## Appendix 4.4 Jiangsu Coast (including mouth of the Yangtze)

Participants: Mrs. Jing LI , Mr. David MELVILLE, Mr. Simba CHAN, Mrs. Nicola CROCKFORD, Dr. Xianji WEN, Mr. Yat Tung YU



### Key Issues

- Loss of tidal flats to infrastructure and aquaculture
- Spartina encroachment
  - Shorebird roost sites
- Pollution
  - Chemical Plants
  - Agriculture
  - Chemicals used to kill benthos before spat seeding on the mudflats

- Habitat isolation/fragmentation
- Benthos harvesting – “collateral damage”, human disturbance, seeding spat
- Recent reduction in sediment loads – very limited accretion

#### Nature Reserves

- Chongmin Dongtan National Nature Reserve (Ramsar listed)
- Yancheng National Nature Reserve (Ramsar listed)
- Dafeng National Nature Reserve (Ramsar listed)

Good for maintaining tidal flats

#### Shell fishers

##### Positive

- Spartina control (herbicide)
- Export to Japan – high level, quality control, chemicals
- Two Protected Areas for shellfish at Rudong
- Common concern for well being of tidal flat – shorebirds/shellfishers

##### Negative

- “Disturbance”
- ?Poisoning benthos prior to seeding spat
- Destruction of benthos during harvesting
- Competition for food between birds and people

#### Opportunities

- Potential for making things better?
- Need more information
- Harvesting season vs shorebird use

#### Spartina

##### Positive

- Land growth
- Economic use of vegetation – but none
- Protection of sea wall
- Passerine bird habitat
- Beautiful scenery?
- Impact on fisheries?
- Carbon?

##### Negative

- Loss of tidal mudflat – feeding habitat
- Loss of roost site
- Loss of shellfish sites
- Increased sedimentation rate – change in the profile of the tidal flats
- Replacement of salt marsh habitat with sedgeland

##### Control

- Impound + flood – control outside seawall
- Herbicide
- New Seawalls beyond Spartina habitat

## Lianyungang

- Internationally important to:
  - Asian Dowitcher (NM)
  - Eurasian Oystercatcher (NB)
  - [Red Knot]
  - [Pied Avocet]
  - Black-tailed Godwit (SM)
  - Relict Gull
- No communication with government so far
- Under threat of development
- Tourism potential (with three islands)
- Seaweed farming
- Need to compile bird information and map distribution. Identification of site and usage.
- Obtain information on development planning
- Some local birdwatchers
- More surveys needed

## Rudong and Dontai

- Dongtai: used to be inside the “experimental zone “ of Yancheng Nature Reserve
- Predictive modelling of sedimentation of the Rudong coast
- Priority Project Partners
  - Paulson Institute
  - Province / city level for Nature Reserve establishment – but county level (i.e. Rudong) may not support.

## Additional potential players

- PI – shellfish and policy
- TNC – Nature Reserve establishment (Compensation – tidal flat rent)
- RARE – sustainable agriculture (non-point pollution)
- HKBWS / BirdLife tourism, eco-study

Showcase Rudong’s commitment to ecological conservation and eco-civilisation

## Yancheng / Dafeng

- Can work with NBBC (Jiang Hongxing)
- Good map of Yancheng coast (protected / not protected)