Outcome of the Regional Workshop on the

Conservation and Management of the Intertidal Wetlands, Associated Wetlands and Migratory Waterbirds of the Yellow Sea

Beijing, 3-5 August 2016

The Yellow Sea ecosystem of intertidal wetlands[1], associated habitats and the biodiversity that depends on them, encompassed by China, the Democratic People's Republic of Korea (DPRK) and the Republic of Korea (RoK) is among the ecological wonders of the world. It represents the largest area of intertidal flats on the planet. It is the most important staging area for migratory waterbirds in the greatest of all flyways, the East Asian-Australasian Flyway (EAAF); some of these birds undertake the longest known non-stop migratory journeys. The millions of waterbirds that use these wetlands provide an indicator of the vital ecosystem services provided by the Yellow Sea, including fisheries, tourism, disaster risk reduction and climate change resilience, which profoundly underpin socio-economic development. It provides an ecosystem base for the regional economy and human well-being of the most populated coastal area in the world, with an estimated population of more than 200 million people and a density >500 people/km^2. Furthermore, this Yellow Sea Ecosystem provides a major contribution to the global natural heritage as well as that of the three Yellow Sea nations.

Conserving and restoring the Yellow Sea wetlands, and sustainably managing their ecosystem functions, is vital not only for the citizens of the three Yellow Sea nations and their future generations, but also for all nations along the EAAF from Russia and the United States in the north, Bangladesh in the west, to Australia and New Zealand in the south. All these countries are ecologically linked by the migratory waterbirds that they share.

These Yellow Sea wetlands are critically threatened by a wide range of pressures, resulting in their degradation and destruction, especially through unprecedented rates of conversion; around 66% of intertidal wetlands in the Yellow Sea have been lost in the past 50 years. Consequently populations of Great Knots, Red Knots and Bar-tailed Godwit (subspecies *menzbeiri)* have recently declined by 18–20% per year[2] and the population of Spoon-billed Sandpiper has declined even more sharply, at up to 26% per year[3]. If no further conservation measures are taken, these species are likely to become extinct in the near future.

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[1] Intertidal wetlands of the Yellow Sea encompass coastal mudflats, sandflats, saltmarshes and rocks between the highest and lowest tidal points, plus subtidal areas down to 6 meters below the lowest point of the tide.. As almost all shorebird species use habitats, such as farmland, fishponds and saltpans above high water mark, often behind the sea wall, both for feeding and twice daily as high tide roosts when intertidal areas are submerged, and as these coastal areas are usually facing high development pressure also, they should be seen as a unit: intertidal wetland and associated habitat.

[2] Piersma, T., Lok, T., Chen, Y., Hassell, C. J., Yang, H.-Y., Boyle, A., Slaymaker, M., Chan, Y.-C., Melville, D. S., Zhang, Z.-W. and Ma, Z. (2016), Simultaneous declines in summer survival of three shorebird species signals a flyway at risk. J *Appl Ecol*, 53: 479–490. doi:10.1111/1365-2664.12582 (http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12582/full).

[3] Zöckler, C.; Syroechkovskiy, E. E.; Atkinson, P. W. 2010. Rapid and continued population decline in the Spoon-billed Sandpiper *Eurynorhynchus pygmeus* indicates imminent extinction unless conservation action is taken. *Bird Conservation International* 20(2): 95-111.

Opportunities still exist to ensure the conservation of the intertidal wetlands of the Yellow sea and their associated values. Many sites of regional and international importance remain and the restoration of key sites, previously degraded is, in some cases, still possible. It is therefore urgent to act to maintain and enhance the extraordinary importance of the Yellow Sea intertidal wetlands.

The IUCN World Conservation Congress held in Jeju, Republic of Korea in September 2012 recognized the need to ensure a suitable framework for the conservation and management of the intertidal wetlands of the Yellow Sea and associated bird species. Resolution 28 on the 'Conservation of the East Asian-Australasian Flyway and its threatened waterbirds, with particular reference to the Yellow Sea' was adopted by 100% of voting governments along with Resolution 51 on 'Improving conservation and sustainability of the Yellow Sea'. Implementation of these resolutions by governments and organisations is needed to meet relevant Aichi Targets, Sustainable Development Goals and Ramsar Resolution X.22 in relation to wetland ecosystems.

At national level, China and the Republic of Korea have taken steps to further enhance the conservation of Yellow Sea intertidal wetlands:

- In China, the 18th National Congress of the Communist Party identified eco-civilization as a national strategy, promoting the implementation of national polices including ecological red lining, national wetland conservation policy and eco-compensation, which began a new era for coastal wetlands conservation. China's steps to implement IUCN Resolution 28 have included a workshop in September 2014 that resulted in the Beijing Declaration, and the China Coastal Wetland Conservation Blueprint project to strengthen wetland legislation and improve the protection, management and restoration of coastal wetlands.

- To implement IUCN Resolutions 28 and 51, RoK has established and expanded protected areas (including designating Karolim Bay, South Chungcheong Province as a Marine Protected Area, following years of consultation among government, local communities and developers), restored damaged intertidal wetlands, improved habitat quality, enacted and implemented the national wetland conservation plan and furthermore held a national workshop in May 2016 that resulted in clear outcomes including action plans for the future.

These are positive steps but there is still much to be done to achieve the goals of IUCN Resolutions 28 and 51 on the ground. The current pattern of development of the Yellow Sea coast will make it impossible for the Yellow Sea nations to achieve a number of Sustainable Development Goals, such as 14 and 15, as indicated by the dramatic declines in coastal waterbird populations, and is resulting in huge losses in ecosystem services.

The Yellow Sea is a transboundary site, requiring regional cooperation for its management to maintain the many values of this complex and fragile ecosystem, as exemplified by the use by individual birds of the entire ecosystem across national boundaries. Taking into account the urgency to progress this regional cooperation, nearly 70 officials, experts, and representatives from intergovernmental organizations and Non-Governmental Organisations (NGOs) from China, Republic of Korea and around the world gathered together in Beijing in August 2016.

The participants of the workshop committed to collaborate and engage with all relevant organizations to deliver the following actions:

Transboundary cooperation

1. Strengthen international collaboration on the protection and wise use of the Yellow Sea's intertidal wetlands and associated habitats by integrating their conservation into existing international cooperative frameworks. Initiate the development of a joint, multi-sectoral **transboundary cooperation mechanism** to enhance the conservation and coordinated management of the intertidal wetlands and associated habitats of the Yellow Sea.

2. Develop a **Regional Strategy for the Yellow Sea** intertidal wetlands and associated habitats linked to a harmonized set of national action plans and strategies for the protection of these

ecosystems for inclusion in national development planning frameworks.

3. Encourage cooperation on the establishment of a **serial Yellow Sea World Heritage Site**, noting each nation's process to nominate intertidal areas and associated habitats for inscription on the World Heritage List and learning from the similar experience of the Wadden Sea World Heritage Site involving Denmark, Germany and the Netherlands.

Policy and legislative

4. Use ecosystem-based approaches, combined with ecological character dynamics, to scientifically assess current **ecological zoning, land-use controls** and levels of protection and management. According to the precautionary principle, set up zoning and land use controls balancing the needs of different governmental agencies and local economic development.

5. Work towards a **harmonized legislative and policy base** relevant to impacts on intertidal wetlands and associated habitats, through a regional review to identify gaps and inconsistencies, making recommendations for amendments to existing laws and regulations, and where necessary, developing new laws and regulations to strengthen and integrate the conservation and effective management of intertidal wetlands of the Yellow Sea Ecoregion.

6. **Review all large scale reclamation schemes affecting intertidal wetlands and associated habitats** by conducting third party independent assessments of the affected sites' integrated ecosystem services, including the global importance of the sites for shared migratory waterbird populations.

7. Review existing regulation systems in the Yellow Sea countries as regards control and disaster management of **inflows of pollution, sediment and freshwater** with a view to taking steps to restore a well-functioning ecosystem.

Site protection

8. Enhance a mutual understanding of an **integrated protected area network** across the Yellow Sea Ecoregion using a combination of appropriate designations at provincial, national and international levels (including UNESCO programme sites, Ramsar Sites, EAAFP Flyway Network Sites and Key Biodiversity Areas). This will require the identification of priority sites, especially in intertidal areas, using information from databases of both professional and other networks, including assessments of the potential of intertidal wetlands and associated habitats for fish and shellfish production compatible with nature conservation objectives. It will require establishing protected areas at key sites not currently under protection and extension of existing protected areas.

Ecosystem services

9. Develop **regional guidance on best practice for sustainable fisheries, aquaculture including seaweed farming (including shellfisheries and polychaete harvesting) and traditional salt production in existing areas**, and compatibility of other relevant production systems of Yellow Sea intertidal wetlands and associated habitats and promote demonstration areas that sustain local livelihoods as well as migratory birds and other biodiversity values.

10. Promote ecologically and culturally sustainable **tourism** that benefits local communities and the conservation of the coastal ecosystem, including a possible ecotourism trail between key sites around the Yellow Sea alongside an annual calendar of festivals and events.

Monitoring, Survey and Research

11. Through the international coordination of the East Asian - Australasian Flyway Partnership, strengthen **survey, monitoring and research** on ecological characteristics of the Yellow Sea intertidal wetlands including through the establishment of national and international coastal

wetland monitoring systems based on international standards for data collection and curation, and principles for data sharing among Yellow Sea nations, with a view to management needs and specific causes of concern. Ensure that management decisions also take into account **traditional environmental knowledge** held by local communities.

Communication, Education, Participation and Awareness (CEPA)

12. Promote enhanced understanding of, and support for, the conservation of this unique ecosystem, as well as knowledge sharing and capacity building, through **establishment of networks of people** among the three Yellow Sea countries, including:
    a. a series of regular international scientific symposia involving researchers and open to all relevant stakeholders
    b. a series of regular fora/festivals involving local coastal communities and relevant stakeholders
    c. a network of local civil society organizations along the Yellow Sea coast.

Develop, implement and/or strengthen awareness and outreach programmes at international, national and local levels, emphasizing the importance of the Yellow Sea intertidal wetlands and associated ecosystem services, with a particular focus on policy makers and developers at local, provincial and national, using existing **Communication, Education, Participation and Awareness (CEPA)** programmes. Use pop culture, opinion leaders (including religious leaders) and social media to help raise awareness of the values of the Yellow Sea throughout the EAAF and beyond.