# **Information Sheet on Flyway Network Sites**

#### Notes for compilers:

The management body intending to nominate a site for inclusion in the East Asian - Australasian Flyway Site Network is requested to complete a Site Information Sheet. The Site Information Sheet will provide the basic information of the site and detail how the site meets the criteria for inclusion in the Flyway Site Network.

The Site Information Sheet has been divided into two sections. Part 1 (Section 1-14) seeks basic information on the site and it is essential that it be completed. Part 2 seeks additional information and is optional.

The Site Information Sheet is based on the Ramsar Information Sheet. If the site proposed for the Flyway Site Network is an existing Ramsar site then the documentation process can be simplified. In this case the National Government Partner need only send a copy of the existing sheets with additional details on Question 1 and 10 of the Flyway Site Information Sheet.

Once completed, the Site Information Sheet (and accompanying map(s)) should be submitted to the Flyway Partnership Secretariat. Compilers should provide an electronic (MS Word) copy of the Information Sheet and, where possible, digital copies of all maps.

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## Part 1: Essential Information

#### 1. Name and contact details of the compiler of this form:

The full name, institution/agency, and address of the person(s) who compiled the SIS, together with any telephone and fax numbers and e-mail address.

- Name: Shinan-gun County
- Compiler: Mr. Kyung-Gyu Lee (scops@korea.kr)
- Address: Shinan-gun Office, Cheonsaro 1004 Aphae-meyon, Shinan-gun, Jeonnam

Province 530-705, Republic of Korea

- Telephone: +82-61-240-8929 / FAX: +61-240-8582

#### 2. Date this sheet was completed:

The date on which the SIS was completed (or updated).

## - 11<sup>th</sup> Oct 2010

#### 3. Country:

The official (short) version of the country name.

- Republic of Korea

#### 4. Name of the Flyway Network site:

The precise name of the designated site in the national language and English. This name will be used precisely as given on the Site certificate. Alternative names, including in local language(s), should be given in parentheses after the precise name.

#### - Chilbaldo Islet

#### 5. Map of site:

The most up-to-date available and suitable map of the wetland should be appended to the SIS (in hardcopy and, if possible, also in digital format). The map must clearly show the boundary of the site.

- Yes



#### 6. Geographical coordinates (latitude/longitude, in decimal degrees):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

- Latitude: 34.78 N
- Longitude: 125.79 E

7. Elevation: (in metres: average and/or maximum & minimum)

- 0-105m above sea level

#### 8. Area:

The total area of the site, in hectares. If the areas of discrete site units are known, please also list each of these together with the names (or labels) used to identify and differentiate these units.

- Total area of site: 36,993 m<sup>2</sup> (3.7ha)

#### 9. General overview of the site:

A brief summary of the site (limited to not more than two sentences), mentioning principal physical and ecological functions, and its importance for migratory waterbirds.

- Chilbaldo Islet (36,993 m<sup>2</sup>), about 47km apart from the south-western Korea, consists of stiff slopes with grasslands mainly *Carex boottiana*, and has a light house (3,372m<sup>2</sup>) built in 1906. As located in the route of EAAF, Chilbaldo is an important stopover site for migratory passerines, raptors; 137 bird species were recorded including 4 internationally vulnerable and 17 nationally protected birds. However the value of this islet could be more highlighted as a breeding site for seabirds: abundant Swinhoe's Storm-Petrels, small numbers of Streaked Shearwaters and Ancient Murrelets. About 13,000 pairs of the Swinhoe's Storm-petrels are expected to breed on this islet annually, and this is the second largest breeding colony of the species in Korea. This important seabird colony is nationally protected as a Natural Monument since 1982 and National Park after 2011. Internationally Chilbaldo is also included within the boundary of Shinan Dadohae Biosphere Reserve designated by UNESCO after 2009. To effectively manage Chilbaldo Islet, the cooperation between main authorities on the islet including National

Heritage Administration, Shinan County, National Park, Korea UNESCO MAB Committee, and NGOs is needed. Especially 2008-2009 monitoring results on the breeding status of Swinhoe's Storm-Petrels show the birds are severely impacted by invasive plants; the plants reduce breeding habitats and also are causes of mortality of the birds. Recently the main authorities had meetings and field works to launch a restoration committee and remove invasive plants at Chilbaldo Islet.

#### 10. Justification of Flyway Site Network criteria:

Please provide waterbird count information that demonstrates that the site meets the criteria of the Flyway Site Network (Annex 1). That is:

- it regularly supports > 20 000 migratory waterbirds; or,
- it regularly supports > 1 % of the individuals in a population of one species or subspecies of migratory waterbird; or,
- it supports appreciable numbers of an endangered or vulnerable population of migratory waterbird
- it is a "staging site" supporting > 5 000 waterbirds, or > 0.25% of a population stage at the site.

A listing of the populations of migratory waterbirds covered by the East Asian – Australasian Flyway Partnership and the 1% thresholds is attached (Annex 3).

The "staging site" criterion is particularly difficult to apply and application of this should be discussed with the Secretariat. Also note that some species have several populations that are very difficult to distinguish in the field.

#### - a5, a6 (Refer to Annex I)

#### It regularly supports 10,000-13,000 breeding pair of Swinhoe's Strom-Petrels (about 26,000 birds),

indicating that supports 26% of the individuals in a population of Swinhoe's Storm- Petrels.

Scientific name	Common name	Population* world	1% individual world	Peak count	Year	Ratio(%) world
Oceanodroma monorhis	Swinhoe's Storm Petrel	100,000	1,000	26,042	2008	26

\* Source of the total population: BirdLife International (2011) Species factsheet: *Oceanodroma monorhis*. downloaded from <u>http://www.birdlife.org</u> on 24/10/2011.

\* There is no reliable global estimation on its population due to limited information; 1% criteria may not be applicable in some cases.

#### 11. Wetland Types:

List the wetland types present (see Annex 2). List the wetland types in order of their area in the Flyway Network site, starting with the wetland type with the largest area.

#### - A, D (Refer to Annex $\Pi$ )

#### 12. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Ministry of Agriculture/Dept. of Environment, etc.

#### - Shinan-gun County

#### 13. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

- Chilblado Islet, belonging to Shinan-gun County, is designated as National Heritage and

National Park, and has a light house. Main management authorities could be arranged as followed.

- 1. Shinan-gun County: land tenure and local administrative agency
- 2. Cultural Heritage Administration: management of National Monument
- 3. Minister of Environment: management of National Park
- 4. Ministry of Land, Transport and Maritime Affairs: management of a light house

#### 14. Bibliographical references:

A list of key technical references relevant to the wetland, including management plans, major scientific reports, and bibliographies, if such exist. Please list any functional/active Web site addresses dedicated to the site or which prominently feature the site, and include the date that the Web site was most recently updated. When a large body of published material is available about the site, only the most important references need be cited, with priority being given to recent literature containing extensive bibliographies.

- Birdlife International. 2009. *Oceanodroma monorhis*. IUCN Red List of Threatened Species. Ver. 2009.2. (Available online at: www.iucnredlist.org;. accessed 22 December 2009)
- Cultural Heritage Administration of Korea. 1993. Natural monument □. Cultural Heritage Administration of Korea.
- Kim, H. J. 2006. Monitoring report on seabirds at Kuguldo. Pp. 9-24. Monitoring report on natural heritage. Cultural Heritage Administration of Korea.
- Korea Institute of Environmental Ecology. 2008. Evaluation on the islands designated national monuments and management plan. Natural Heritage Center.
- Lee, C. B. 1993. Handbook of Korean flora. Hyangmoonsa
- Lee, D. P. & Shin, H. Y. 2000. Birds. Pp. 36-43. Survey report on Kuguldo, Chilbaldo, Chilsando. Jeollanamdo.
- Lee, H. S. 1989. Reproductive success of Swinhoe's Storm-Petrels (*Oceanodroma monorhis*) on the Kuguldo Islet, Korea. Master science thesis, Kyung Hee University.
- Lee, K. G., Ko, G. N., Jegal, G. M. & Park, C. A. 2010. A Survey report on avifanuna, shorebirds and seabirds of Shinan, 1004 Islands. Shinan-gun County.
- Lee, K. S. 1988. Breeding biology of Swinhoe's Storm-Petrels (*Oceanodroma monorhis*) on Chilbaldo Islet, Korea. Master science thesis, Kyung Hee University.
- Ministry of Environment. 2002. Survey on Uninhabited Islands Shinan. Ministry of Environment
- UNESCO MAB Secretariat. 2009. Biosphere Reserves. UNESCO.

## Part 2 – Optional

#### 15. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Chilbaldo Islet, about 47km apart from the south-western Korea, consists of stiff slopes. The area is 36,993 m<sup>2</sup> with 105m in height, and a light house on top of the islet is built in 1906. Evergreen plants are relatively dominant species, mainly *Carex boottiana* grasslands. Average air temperature and precipitation is 13.8 °C and 1088.4 mm, respectively.

#### 16. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

- No apparent catchment

#### 17. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

- No hydrological value. Rainfall is the only freshwater source on the islet. There is a man-made

well which catches rainfall located near the top of the islet, but covered by caps.

#### 18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Flyway Network site, and the ecosystem services of the site and the benefits derived from them.

- As Chilbaldo Islet is located in the route of EAAF, it serves as an important shelter for migratory birds. Also it consists of stiff slopes with grasslands mainly *Carex boottiana*, which is a main habitat for breeding Swinhoe's Storm-Petrels. Usually the birds dig a nest burrow under *Carex boottiana*.

#### 19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the SIS.* (Please add here the species which do not comes under sec no 14)

- Major part of the islet is covered with grasslands, mainly native *Carex boottiana*, and introduced *Achyranthes japonica, Miscanthus sinensis* and *Artemisia princes* On top of the islet, some exotic trees, *Ficus carica* which were planted by light keepers, are distributed. About 48 plant species were recorded in total. Introduced plants have been believed to affect the breeding seabird colony negatively by reducing nesting areas in size and causing direct mortality.

#### 20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 10. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the SIS.* 

(Please add here the species which do not comes under sec no 14)

- Chilbaldo is an important breeding site for seabirds; Swinghoe's Storm-petrels, Streaked
  Shearwaters and Ancient Murrelets. Also it is a crucial stopover site: a total of 137 bird species
  were recorded including 4 internationally vulnerable species and 17 nationally protected birds
  (see Appendix 1).
- Once there were some goats raised by light keepers but eradicated in 1990s and no mammal species has not been observed. Survey on reptiles and amphibians were not conducted but probably they are very rare. Twenty nine insect species were recorded.

#### 21. Social and cultural values:

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc.
 Distinguish between historical/archaeological/religious significance and current socio-economic values:

**b)** Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

Describe this importance under one or more of the following categories:

- sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:
  - A light house is located on the top of the islet which was built in 1905 and this is one of the oldest light houses in Korea. Two or three light keepers resided, but there is no permanent resident since November in 1996.

#### 22. Land tenure/ownership:

- a) within the Flyway Network site:
- -Possessed by Shinan-gun County
- b) in the surrounding area:

#### 23. Current land (including water) use:

a) within the Flyway Network site:

- The only top of the islet has been used for a Light house  $(3,372m^2)$  since 1905 by the

national governments (Mokpo Regional Maritime Affairs and Port Office of the Ministry of

Land, Transport and Maritime Affairs)

b) in the surroundings/catchment:

# 24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

a) within the Flyway Network site:

- The light house of Chilbaldo was built in 1905 and some light keepers (2-3 persons) stayed there until 1997. They cultivated vegetables and raised goats on the islet. These activities caused introduction of exotic plants and trees. Recently the spread of invasive plants seems to more greater and the impacts on breeding seabirds are more severe; the plants reduce breeding habitats and also are causes of mortality of the birds. Especially about 400 dead Swinhoe's Storm-Petrels entangled by the seeds of invasive *Achyranthes japonica* were observed in 2009. To restore the habitat of Chilbaldo, Restoration programs are in preparation.

b) in the surrounding area:

#### 25. Conservation measures taken:

# **a)** List national and/or international category and legal status of protected areas, including boundary relationships with the Flyway Network site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

#### - National legal status

Chilbaldo Islet is designated as Natural Monument (registration no. 332, since 1986) by Cultural Heritage Administration and as National Park by Ministry of Environment after 2011. Both have strong conservation acts: Cultural Heritage Conservation Act and National Park Act. Any disturbance, construction, change of habitats is not allowed. Especially Cultural Heritage Conservation Act makes any entrance without permission illegal, to protect the seabird colony.

- International conservation status

Internationally Chilbaldo is included within the boundary of Shinan Dadohae Biosphere Reserves designated by UNESCO after 2009.

- Shinan Dadohae Biosphere Reserve (25 May 2009)

**b)** If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate): la

Ia █; Ib □; II □; III □; IV □; V □; VI □

c) Does an officially approved management plan exist; and is it being implemented?:

d) Describe any other current management practices:

#### 26. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

Although Chilbaldo Islet is designated as a Natural Monument, National Park and Shinan Dadohae Biosphere Reserve, the status of breeding seabirds were not poorly studied. The 2008-2009 monitoring results on the breeding status of Swinhoe's Storm-Petrels showed the birds were severely impacted by invasive plants; the plants reduce breeding habitats and also are causes of mortality of the birds. To effectively restore Chilbaldo Islet, main authorities on the islet including National Heritage Administration, Shinan County, National Park, Korea UNESCO MAB Committee, and NGOs had meetings and field works to launch a restoration committee and remove invasive plants at Chilbaldo Islet. Extirpation programs to remove invasive plant species and plant native plants will be soon released.

#### 27. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

- The Cultural Heritage Administration (CHA) has conducted short-term monitoring programs on the breeding condition of seabirds (mainly of Swinhoe's Storm-Petrel) annually.
- Now a restoration program of 2011 to plant native vegetations and to remove invasive plants is developed by Koguryeo University (Prof. Kim, H. S.) under the support of CHA, and Shinangun County and National Park have been carrying out monitoring on the breeding status of Swinhoe's Storm-Petrel since 2008.

# 28. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

- As a breeding site of seabirds, Chilbaldo Islet is well-known to the public.

- The recent impacts of invasive plants on breeding Swinhoe's Storm-Petrels are well delivered to the public by symposium (ex. 2009 International Migratory Symposium hosted by Shinan-gun County and National Park) and various promotion materials released to broadcastings and newspapers.
- To obtain effective restoration Shinan-gun County is trying to make restoration committee including, Cultural Heritage Administration, National Park, Korean UNESCO MAB committee, and NGOs. Two meetings toward restoration committee were conducted in 2011.
- Still systematic and consistent CEPA activities are not available but educations on the public and information booklets will be prepared.

#### 29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

#### - No entrance is allowed to protect the breeding seabird colony and to the light house facility

without permission.

# Appendix 1

### Birds recorded on Chilbaldo Islet

No.	Scientific Name	English Name	Conservational Status		
			International	National	
1	Gavia stellata	Red-throated Diver			
2	Calonectris leucomelas	Streaked Shearwater			
3	Oceanodroma monorhis	Swinhoe's Storm Petrel			
4	Phalacrocorax capillatus	Temminck's Cormorant			
5	Ardea cinerea	Grey Heron			
6	Egretta alba modesta	Great Egret			
7	Egretta garzetta	Little Egret			
8	Bubulcus ibis	Cattle Egret			
9	Ardeola bacchus	Chinese Pond Heron			
10	Irobrychus aurbythmus	Schrenck's Bittern		•	
10	Aix a alorioulata	Monderin Duck		•	
11	An guericular	Chinasa Sparrow Hawk		•	
12	Accipiter soloensis			•	
15	Accipiter guiaris	Japanese Lesser Sparrow Hawk		•	
14	Accipiter nisus	Eurasian Sparrow Hawk		•	
15	Buteo buteo	Common Buzzard		•	
16	Falco tinnunculus	Common Kestrel		•	
17	Falco peregrinus	Peregrine Falcon		•	
18	Coturnix japonica	Japanese Quail			
19	Turnix tanki	Yellow-legged Buttonquail			
20	Grus monacha	Hooded Crane	Vulnerable	•	
21	Rallus aquaticus	Water Rail			
22	Gallicrex cinerea	Watercock		•	
23	Tringa glareola	Wood Sandpiper			
24	Phalaropus lobatus	Red-necked Phalarope			
25	Scolopax rusticola	Eurasian Woodcock			
26	Gallinago gallinago	Common Snipe			
27	Calidris canutus	Red Knot			
28	Larus crassirostris	Black-tailed Gull			
29	Larus argentatus	Herring Gull			
30	Synthliboramphus antiauus	Ancient Murrelet			
31	Streptopelia orientalis	Rufous Turtle Dove			
32	Treron sieholdii	White-bellied Green Pigeon			
33	Cuculus fugar	Hodgson's Hawk Cuckoo			
33	Cuculus canorus	Common Cuckoo			
34	Cuculus caturatus	Oriental Cuckoo			
26	Cuculus saluralus	Little Cockee		•	
27	Cuculus poliocephalus	Entre Cockoo		•	
37	Otus scops	Eurasian Scops Owl		•	
38				•	
39		Eurasian Eagle Owl		•	
40	Strix uralensis			•	
41	Ninox scutulata	Brown Hawk Owl		•	
42	Caprimulgus indicus	Jungle Nightjar			
43	Hirundapus caudacutus	White-throated Needle-tailed Swift			
44	Apus pacificus	White-rumped Swift			
45	Alcedo atthis	Common Kingfisher			
46	Halcyon coromanda	Ruddy Kingfisher			
47	Eurystomus orientalis	Broad-billed Roller			
48	Upupa epops	Ноорое			
49	Jynx torquilla	Wryneck			
50	Alauda arvensis	Eurasian Skylark			
51	Riparia riparia	Sand Martin			
52	Hirundo rustica	Barn Swallow			
53	Hirundo daurica	Red-rumped Swallow			
54	Delichon urbica	Asian House Martin			
55	Dendronanthus indicus	Forest Wagtail			
56	Motacilla flava	Yellow Wagtail			
57	Motacilla cinerea	Grev Wagtail			

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58	Motacilla lugens	Black-backed Wagtail		
59	Motacilla grandis	Japanese Wagtail		
60	Anthus hodgsoni	Olive-backed Pipit		
61	Anthus roseatus	Rosy Pipit		
62	Anthus gustavi	Pechora Pipit		
63	Anthus rubescens	Buff-bellied Pipit		
64	Hypsipetes amaurotis	Brown-eared Bulbul		
65	Lanius tigrinus	Thick-billed Shrike		
66	Lanius bucephalus	Bull-headed Shrike		
67	Lanius cristatus	Brown Shrike		
68	Bombycilla japonica	Japanese Waxwing		
69	Troglodytes troglodytes	Winter Wren		
70	Prunella montanella	Siberian Accentor		
71	Luscinia sibilans	Rufous-tailed Robin		
72	Luscina calliope	Siberian Ruby Throat		
73	Luscinia cyane	Siberian Blue Robin		
74	Tarsiger cyanurus	Red-flanked Bluetail		
75	Phoenicurus auroreus	Daurian Redstart		
76	Saxicola torquata	Common Stonechat		
77	Monticola gularis	White-throated Rock Thrush		
78	Monticola solitarius	Blue Rock Thrush		
79	Turdus sibirica	Siberian Thrush		
80	Turdus dauma	White`s Thrush		
81	Turdus hortulorum	Grey-backed Thrush		
82	Turdus chrysolaus	Brown Thrush		
83	Turdus pallidus	Pale Thrush		
84	Turdus obscurus	Eye-browed Thrush		
85	Turdus naumanni eunomus	Dusky Thrush		
86	Cettia diphone	Japanese Bush Warbler		
87	Urosphena squameiceps	Short-tailed Bush Warbler		
88	Locustella lanceolata	Lanceolated Grasshopper Warbler		
89	Locustella ochotensis	Middendorff's Grasshopper Warbler		
90	Locustella pleskei	Styan's Grasshopper Warbler	Vulnerable	
1				
91	Locustella fasciolata	Gray`s Grasshopper Warbler		
91 92	Locustella fasciolata Acrocephalus bistrigiceps	Gray's Grasshopper Warbler Black-browed Reed Warbler		
91 92 93	Locustella fasciolata Acrocephalus bistrigiceps Acrocephalus orientalis	Gray's Grasshopper Warbler Black-browed Reed Warbler Oriental Great Reed Warbler		
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122	Emberiza rutila	Chestnut Bunting		
123	Emberiza sulphurata	Yellow Bunting	Vulnerable	
124	Emberiza spodocephala	Black-faced Bunting		
125	Emberiza schoeniclus	Reed Bunting		
126	Fringilla montifringilla	Brambling		
127	Carduelis sinica	Oriental Greenfinch		
128	Carduelis spinus	Siskin		
129	Carduelis flammea	Common Redpoll		
130	Carduelis hornemanni	Hoary Redpoll		
131	Leucosticte arctoa	Rosy Finch		
132	Loxia curvirostra	common Crossbill		
133	Eophona migratoria	Chinese Grosbeak		
134	Sturnus vulgaris	Common Starling		
135	Sturnus cineraceus	Grey Starling		
136	Oriolus chinensis	Black-naped Oriole		
137	Corvus corone	Carrion Crow		
	Total		4	17

-Source: Lee et al. (2010)

## Annex 1: Criteria for the inclusion of sites in the Flyway Site Network (from the Partnership Text)

To be considered for inclusion in the Flyway Site Network, this Partnership adopts the following criteria:

- a. Convention on Wetlands (Ramsar, Iran, 1971) criteria for internationally important sites for migratory waterbirds. That is:
  - Criterion 2: A wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
  - Criterion 5: A wetland should be considered internationally important if it regularly supports 20,000 or more waterbirds.
  - Criterion 6: A wetland should be considered internationally important if it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
- b. The staging criteria as applied under the Asia Pacific Migratory Waterbird Conservation Strategy. That is:
  - i. A staging site should be considered internationally important if it regularly supports 0.25% of individuals in a population of one species or subspecies of waterbirds on migration.
  - ii. A staging site should be considered internationally important if it regularly supports 5,000 or more waterbirds at one time during migration.
- c. Under exceptional circumstances a site can be nominated if it supports migratory waterbirds at a level or stage of their life cycle important to the maintenance of flyway populations. Justification of such nominations will be considered by the Partnership on a case by case basis.

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## Annex 2: Ramsar Classification System for Wetland Type

The codes are based upon the Ramsar Classification System for Wetland Type as approved by Recommendation 4.7 and amended by Resolutions VI.5 and VII.11 of the Conference of the Contracting Parties. The categories listed herein are intended to provide only a very broad framework to aid rapid identification of the main wetland habitats represented at each site.

To assist in identification of the correct Wetland Types to list in section 19 of the RIS, the Secretariat has provided below tabulations for Marine/Coastal Wetlands and Inland Wetlands of some of the characteristics of each Wetland Type.

#### Marine/Coastal Wetlands

- A -- **Permanent shallow marine waters** in most cases less than six metres deep at low tide; includes sea bays and straits.
- B -- Marine subtidal aquatic beds; includes kelp beds, sea-grass beds, tropical marine meadows.
- C -- Coral reefs.
- D -- Rocky marine shores; includes rocky offshore islands, sea cliffs.
- E -- Sand, shingle or pebble shores; includes sand bars, spits and sandy islets; includes dune systems and humid dune slacks.
- F -- Estuarine waters; permanent water of estuaries and estuarine systems of deltas.
- G -- Intertidal mud, sand or salt flats.
- H -- Intertidal marshes; includes salt marshes, salt meadows, saltings, raised salt marshes; includes tidal brackish and freshwater marshes.
- I -- Intertidal forested wetlands; includes mangrove swamps, nipah swamps and tidal freshwater swamp forests.
- J -- Coastal brackish/saline lagoons; brackish to saline lagoons with at least one relatively narrow connection to the sea.
- K -- Coastal freshwater lagoons; includes freshwater delta lagoons.
- Zk(a) Karst and other subterranean hydrological systems, marine/coastal

#### **Inland Wetlands**

- L -- Permanent inland deltas.
- M -- Permanent rivers/streams/creeks; includes waterfalls.
- N -- Seasonal/intermittent/irregular rivers/streams/creeks.
- O -- Permanent freshwater lakes (over 8 ha); includes large oxbow lakes.
- P -- Seasonal/intermittent freshwater lakes (over 8 ha); includes floodplain lakes.

- Q -- Permanent saline/brackish/alkaline lakes.
- R -- Seasonal/intermittent saline/brackish/alkaline lakes and flats.
- Sp -- Permanent saline/brackish/alkaline marshes/pools.
- Ss -- Seasonal/intermittent saline/brackish/alkaline marshes/pools.
- Tp -- **Permanent freshwater marshes/pools**; ponds (below 8 ha), marshes and swamps on inorganic soils; with emergent vegetation water-logged for at least most of the growing season.
- Ts -- Seasonal/intermittent freshwater marshes/pools on inorganic soils; includes sloughs, potholes, seasonally flooded meadows, sedge marshes.
- U -- Non-forested peatlands; includes shrub or open bogs, swamps, fens.
- Va -- Alpine wetlands; includes alpine meadows, temporary waters from snowmelt.
- Vt -- **Tundra wetlands**; includes tundra pools, temporary waters from snowmelt.
- W -- Shrub-dominated wetlands; shrub swamps, shrub-dominated freshwater marshes, shrub carr, alder thicket on inorganic soils.
- Xf -- **Freshwater, tree-dominated wetlands**; includes freshwater swamp forests, seasonally flooded forests, wooded swamps on inorganic soils.
- Xp -- Forested peatlands; peatswamp forests.
- Y -- Freshwater springs; oases.
- Zg -- Geothermal wetlands
- Zk(b) Karst and other subterranean hydrological systems, inland

<u>Note</u>: "**floodplain**" is a broad term used to refer to one or more wetland types, which may include examples from the R, Ss, Ts, W, Xf, Xp, or other wetland types. Some examples of floodplain wetlands are seasonally inundated grassland (including natural wet meadows), shrublands, woodlands and forests. Floodplain wetlands are not listed as a specific wetland type herein.

#### Human-made wetlands

- 1 -- Aquaculture (e.g., fish/shrimp) ponds
- 2 -- **Ponds**; includes farm ponds, stock ponds, small tanks; (generally below 8 ha).
- 3 -- Irrigated land; includes irrigation channels and rice fields.
- 4 -- Seasonally flooded agricultural land (including intensively managed or grazed wet meadow or pasture).
- 5 -- Salt exploitation sites; salt pans, salines, etc.
- 6 -- Water storage areas; reservoirs/barrages/dams/impoundments (generally over 8 ha).
- 7 -- Excavations; gravel/brick/clay pits; borrow pits, mining pools.
- 8 -- Wastewater treatment areas; sewage farms, settling ponds, oxidation basins, etc.
- 9 -- Canals and drainage channels, ditches.
- Zk(c) -- Karst and other subterranean hydrological systems, human-made