

# Information Sheet on EAA Flyway Network Sites

## (SIS) – 2017 version

Available for download from <http://www.eaaflyway.net/about/the-flyway/flyway-site-network/>

*Categories approved by Second Meeting of the Partners of the East Asian-Australasian Flyway Partnership in Beijing,  
China 13-14 November 2007 - Report (Minutes) Agenda Item 3.13*

### Notes for compilers:

1. 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. When there is a new nomination or an SIS update, the following sections with an asterisk (\*), from Questions 1-14 and Question 30, must be filled or updated at least so that it can justify the international importance of the habitat for migratory waterbirds.
2. 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.
3. 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 versions (e.g. shapefile) of all maps.

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

Full name: Gombobaatar Sundey and B. Batkhuu

EAAF SITE CODE FOR OFFICE USE ONLY:

Institution/agency: Mongolian Ornithological Society and Dornod Mongol Protected Area Administration

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

DD/MM/YYYY

04/02/2016

### 3. Country \*:

Mongolia

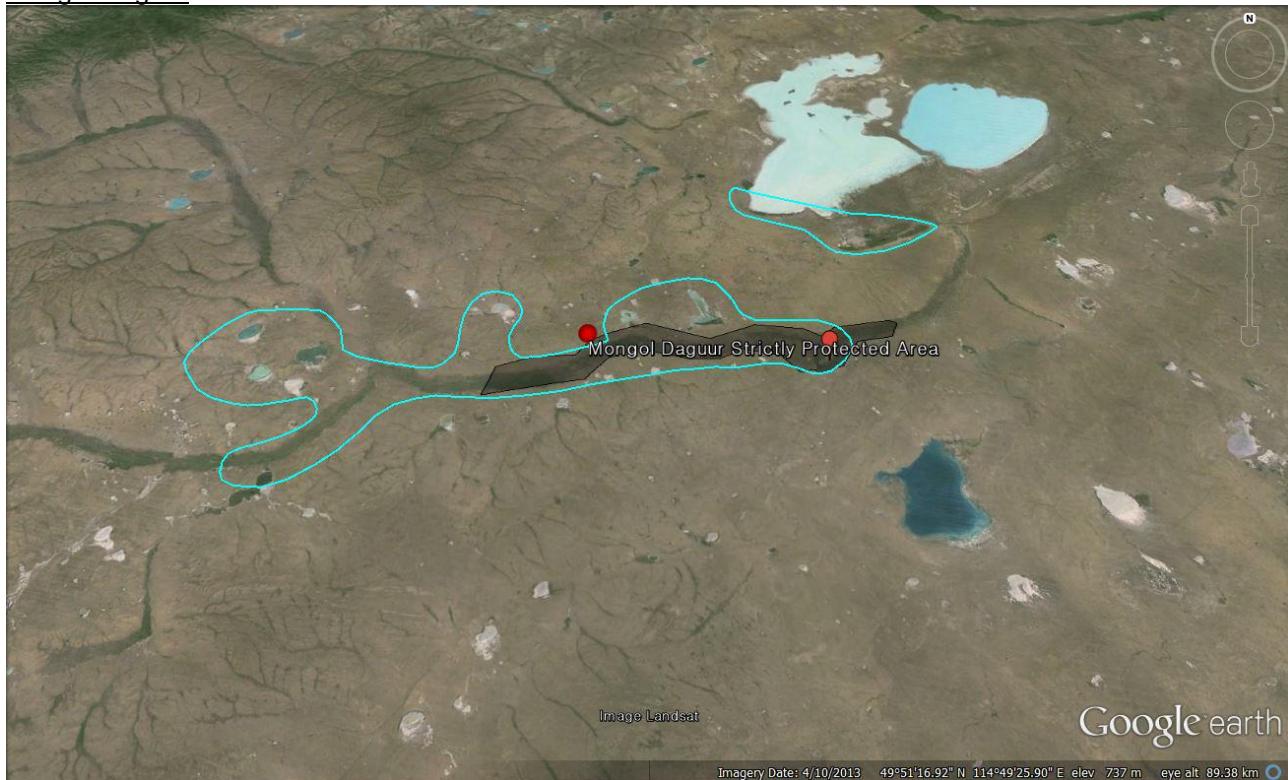
### 4. Name of the Flyway Network site \*:

Accepted English transcription of the Site's name.

Mongol Daguur Wetlands

**5. Map of site \*:**

The most up-to-date available and suitable map of the wetland should be appended to the SIS (only in digital format and shape file). The map must clearly show the boundary of the site. Please refer to the “Digitising Site Boundaries in Google Earth” file linked [here](#).

**Mongol Daguur****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.

Mongol Daguur A: 49°40'41.5"N 115°28'01.8"E

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

Mongol Daguur: 636 m

**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.

Mongol Daguur: 185 km<sup>2</sup> or 18,500 ha

**9. General overview of the site \*:**

A brief (two sentences) summary of the site, mentioning principal physical and ecological functions, and its importance for migratory waterbirds.

The site is one of the unique combinations of natural arid steppes and large wetlands that play biologically and ecologically significant roles. The wetland in Ulz river valley is breeding ground for White-naped cranes. Five other species of cranes are regularly encountered in the area, including the threatened Hooded, Siberian, Common, Red-crowned and Demoiselle cranes. There are 260 bird species belonging to 16 orders, 42 families, and 123 genera of which 33 resident species, 227 migratory, 137 breeding visitor, 71 passage migrant and others. Out of more than 260 bird species recorded, other endangered species include Relict Rull, Mandarin Duck and Great Bustard (Ramsar Information Sheet, 1997).

**10. Justification of Flyway Site Network criteria \*:**

Please provide waterbird count information (with year of latest count) 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,

## Information Sheet on EAA Flyway Network Sites

- 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.

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: The Mongol Daguur wetland supports globally and regionally threatened species: Swan Goose, White-naped, Common, Hooded, Red-crowned and Demoiselle Cranes, Great Bustard, Asian Dowitcher, Relict Gull, Falcated Ducks and other Anatidae species (Gombobaatar et al. 2011).

Criterion 5: The site is an important staging area for migratory waterbirds including 2,000 geese (*Anser anser*, *Anser fabalis*), 4,000 shelducks (*Tadorna ferruginea* and *Tadorna tadorna*), 20,000 ducks (*Anas platyrhynchos*, *Anas poecilorhyncha*, *Anas crecca*, *Anas formosa*, *Anas falcata*, *Anas strepera*, *Anas penelope*, *Anas acuta*, *Anas clypeata* and *Aythya ferina*), 7,000 Coots (*Fulica atra*), and over 10,000 gulls (*Larus ridibundus*, *Larus cachinnans*, etc.) (Ramsar Information Sheet, 1997).

- b. The staging criteria as applied under the Asia - Pacific Migratory Waterbird Conservation Strategy. That is:

A staging site should be considered internationally important if it regularly supports 5,000 or more waterbirds at one time during migration. The site is an important staging area for migratory waterbirds including 7,000 Coots (*Fulica atra*) and 5,000 Cranes (*Grus grus*, *Grus vipio*, *Grus monachus* and *Anthropoides virgo*) and over 10,000 gulls (*Larus ridibundus*, *Larus cachinnans*, etc.). Many waders, such as plovers *Pluvialis squatarola*, *P. fulva*, *Charadrius dubius*, *C. alexandrinus* (10,000), Sandpipers *Tringa ochropus*, *T. stagnatilis*, *T. glareola*, *Actitis hypoleucos*, *Calidris ferruginea*, (10,000), Stints *Calidris minuta*, *C. ruficollis*, *C. temminckii* (6,000), Snipes *Gallinago gallinago*, *G. stenura*, Curlews *Numenius minutus*, *N. arquata* and *N. madagascariensis* also migrate through the area (Ramsar Information Sheet, 1997).

### **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.

#### **Inland wetlands:**

- L -- **Permanent inland deltas.**
- M -- **Permanent rivers/streams/creeks;** includes waterfalls.
- O -- **Permanent freshwater lakes** (over 8 ha); includes large oxbow lakes.
- Q -- **Permanent saline/brackish/alkaline lakes.**
- R -- **Seasonal/intertidal saline/brackish/alkaline lakes and flats.**
- Sp -- **Permanent saline/brackish/alkaline marshes/pools.**
- Ss -- **Seasonal/intertidal 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.

**12. Jurisdiction \*:**

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

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

Dornod Protected Area Administration, Chuluun Khoroot and Dashbalbar Sum of Dornod Province. Ministry of Nature, Environment and Tourism

**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 and the title and/or name and email address/phone number of the person or persons in this office with direct responsibility for managing the wetland.

Local Governor, Choibalsan sum and Dornod Mongol Protected Area Administration of the Ministry of Environment, Green Development and Tourism

In collaboration with

Mongolian Ornithological Society and Dornod Mongol Protected Area Administration

Dr. Sundev Gombobaatar and Batkhuu

Tel: 976-99180148

E-mail: [info@mos.mn](mailto:info@mos.mn)

**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 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.

Batchuluun, D., Tseveenmyadag, N., Bodisaikhan, Kh. and Dashnyam, Sh. 2012. *Report on Avian influenza surveillance study in 2009-2011.* Ulaanbaatar, Mongolia p.148-150. (in Mongolian and English)

*Biodiversity conservation action plan for Mongolia.* 1996. The Ministry for Nature and Environment, Ulaanbaatar, Mongolia.

Ecosystems of Mongolia 1:1,000,000. The map is published with the assistance of UNEP. Russian-Mongolian complex biological expedition.

Gombobaatar, S. (compiler), Brown, H.J., Sumiya, D., Tseveenmyadag, N., Boldbaatar, Sh., Baillie, J.E.M., Batbayar, G., Monks, E.M., Stubbe, M. (editors). 2011. *Summary Conservation Action Plan for Mongolian Birds. Regional Red List Series Vol. 8.* Zoological Society of London, Mongolian Ornithological Society and National University of Mongolia. 847-856 pp. (in English)

*Mongolia's Wildlife Heritage.* 1996. Mongolian Ministry for Nature and Environment, UNDP/GEF, WWF, Avery Press in Hong Kong.

*National Atlas.* 1990. MPR's Academy of Science and Academy of Science, USSR, Ulaanbaatar and Moscow.

Ramsar Information Sheet. 1997. (compiled by N. Tseveenmyadag and B. Chimeddorj). Ulaanbaatar, Mongolia.

Recommendation of suitable protected area network. 1995. WWF–Mongolia. Ulaanbaatar, Mongolia.

Simon, D. 2006. *Waterbird Population Estimates*. Fourth edition. Wetland International

### **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.

Ulz river valley is an area formed by tectonic movements and supports vast steppes, wetland valleys, and number of lakes, rivers, mountain ranges, and endemic plant species. The river valley consist of large and wide marshland with sedges and reed beds, and small pond and pools. These habitats play as significant breeding, stopover, refueling and resting sites for wetland birds on migration and breeding.

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

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

Elevation of the river valley with marsh land and pools varies from 821.2 - 596.8 m a.s.l. The mean annual water discharge of the Uldz is 7.43 m<sup>3</sup> per second, with a minimum of 0.34 m<sup>3</sup>/sec in 1982, and a maximum of 34.3 m<sup>3</sup>/sec in 1988. The hydrological regime of the lakes is characterised by cyclical changes in inundation. The major soil types are the chestnut, meadow-chestnut, meadow, meadow-marshy, salt marshy and sandy ground. The area has a continental climate with dry cold winters and warm relatively wet summers. The mean air temperatures vary from -26°C in January to +19°C in July. The warm period, when the temperature is above zero, lasts for 150 to 160 days. The lakes freeze over in the period between late October and mid-May. Annual precipitation varies from 150-350 mm (mean 290 mm), of which 80% falls between July and the end of August (Ramsar Information Sheet, 1997).

### **17. Hydrological values:**

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

The area is a comparatively closed water system without outflow and therefore important for groundwater recharge in this open arid steppe area. Two large lakes, Tari and Khukh Lakes are located in the basin. Ulz river feeds Tari lake from Mongolia.

### **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.

There are two major types of ecosystems in the area: aquatic and terrestrial ecosystems. Aquatic plant communities:

- Forb grass (*Agropyron*, *Hordeum*, *Poa*) meadows on meadow stratified soils, locally in combination with *Salix* osier-shrubs; *Poa-Carex duriuscula* and *Leymus-Carex duriuscula* meadows on saline soddy steppified soils in combination with halophytic forb-sedge meadows on swampy clay mucky-gely soils (Ramsar Information Sheet, 1997).
- Sedge-halophytic (*Puccinella*, *Hordeum*) grass meadows on saline meadow soils, *Iris-Carex duriuscula* meadows on saline soddy soils, *Puccinella-Achnatherium* and *Suaeda-Achnatherium* meadows on meadow saline and saline meadow-chestnut soils with participation of *Trisetum-Carex* meadows, locally with *Phragmites*, halophytic forb-grass, *Puccinella Achnatherium* meadows on saline meadow-chestnut soils (Ramsar Information Sheet, 1997).

- *Phragmites*, *Eleocharis-Phragmites* communities on meadow-swampy soils in combination with a). *Blysmus-Carex* communities on saline swampy clay-mucky gley soils and forb-*Puccinella* communities with *Achnatherium* on saline meadow soils; b) *Eleocharis-Juncus* communities on swampy-peaty soils, *Leymus* communities with *Limonium* and *Achnatherium*, locally with shrubs on saline meadow soils; c) *Phragmites*, *Carex-Phragmites* communities, locally on peaty gley soils.

The steppe ecosystem plant communities:

- Petrophytic, hemipetrophytic rich forb-sedge-grass steppes on mountain chernozem in combination with steppe meadows on meadow-chernozem soils,
- Petrophytic, hemipetrophytic rich forb-grass, *Filiofolium sibiricum* and shrub (*Armeniaca sibirica*), steppes on mountain chernozems,
- Forb-bunchgrass and rhizome grass steppes (*Stipa*, *Leymus*, *Festuca*, *Carex*) with shrubs (*Caragana* spp.) on dark chestnut soils, locally with inclusions of chernozems,
- Hemipetrophytic and hemipsammophytic *Filiofolium*, *Stipa* steppes, *Caragana* communities on dark chestnut loamy sandy and stony soils.

#### **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 come under sec no 14)

There are over 300 plant species have been found here including several endemic to the region, which only occur in this part of the world. East Mongolian dominant species are *Caragana microphylla*, *C. stenophylla*, *Leymus chinensis*, *Stipa krylovii*, *Filiofolium sibiricum*, *Polygonum divaricatum*, *Iris ichtoma*, *Hemerovallis minor*, *Clematis hemapetola*, *Stipa baicalensis*, *Helictotrichon schellianum*, and along the southern bank of Uldz river are found East Mongolian and Daurian representative species like *Stipa baicalensis*, *S. krylovii*, *Leymus chinensis*, *Bupleurus scorzonerifolium*, *Galium verum*, *Astragalus melilotoides*. Over 100 plant species including *Clycyrrhiza uralensis* and *Thermopsis lanceolata* are used for traditional medicines and the majority of them are rare ones. There are many Daurian endemic species among them like *Caragana spinosa*, *Sophora* spp., *Hypericum* spp., *Iris* spp., *Paeonia albiflora*, etc. which are being threatened.

#### **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 come under sec no 14)

The fauna of the Mongol Daguur area consists of the elements of different biogeographical zones such as taiga, broad-leaved forest and steppe. There is a certain lack of data for many groups of animals. So far 260 bird species, 39 mammal species, 3 reptile species, 2 amphibian species and 7 fish species have been registered. There are 260 bird species belonging to 16 orders, 42 families, and 123 genera of which 33 settled species, 227 migrating species, 137 breeding species, 71 transit species, 23 species happen to be found and 19 species (breeding doubtful) may be found in summer, 9 species are staying in winter. 17 bird species have been included in the International Red Book and the Red Book of Mongolia (Ramsar Information Sheet,

1997). The Ramsar site provides important habitats for such rare species as white-napped crane *Grus vipio*, hooded crane *G. monachus*, Siberian crane *G. leucogeranus*, relict gull *Larus relictus*, swan goose *Cygnopsis cygnoides*, Asiatic dowitcher *Limnodromus semipalmatus* and the great bustard *Otis tarda*.

The Mongol Daguur Ramsar site includes 39 species of mammals belonging to 6 orders, 16 families and 29 genera. In population density they can be classified into 25 species - custom, 6 species - rare, 8 species - very rare, respectively. These have been entered species Daurian Hedgehog (*Erinaceus dauricus*) and Pallas's Cat (*Felis manul*).

## **21. Social, economic and cultural values:**

**a)** Describe if the site has any general social, economic 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:

The area is important to develop a community based birding tourism in the wetland due to location on tourism development area. Animal husbandry is vital for the people living around the wetlands. There are a few sacred places in this area. Fishery is not practised.

**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? (Double-click the checkbox to check and choose "Checked" under "Default Value" from "Check Box Form Field Options" window)

If yes, tick the box  and describe this importance under one or more of the following categories:

- I. 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:

**22. Land tenure/ownership:**

a) Within the Flyway Network site:

State owned but managed by local government

b) In the surrounding area:

State owned but managed by local government

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

a) Within the Flyway Network site:

State owned but used by local government

b) In the surroundings/catchment:

State owned but used by local government. Much water consumption

**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:

Livestock overgrazing, less managed birding tourism, fire and drought

b) In the surrounding area:

Mining, Livestock overgrazing, less managed birding tourism, fire and drought

**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.

Strictly Protected Area consist parts "A" and "B".

**b)** If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate, see Annex 3):

Ia ; Ib ; II ; III ; IV ; V ; VI ; N/A

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

Yes.

If yes, is it being implemented?: If no, is one being planned?

All activities and actions are followed in accordance with the Management Action Plan.

**d)** Describe any other current management practices:

1. Research
2. Reinforcement of laws and regulations
3. Education and public awareness, etc.

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

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

Extension of protected area is proposed by WWF and has been submitted to the appropriate government authorities, and this proposal has not yet received official government endorsement. Crane habitat management activities (e.g. increase in agricultural area) are proposed but not implemented due to lack of finance.

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

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

Mongolian-Russian joint expeditions had been regularly carried out since 1991 by biologists in the protected area. Biodiversity monitoring was conducted.

**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.

Local herders around the site planned to develop a birding site in the area

**29. Current recreation and tourism:**

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

None

**30. Threats \*:**

Which of the following threats is present historically – when the threat stopped but the effects are still there (H), currently (C) or potentially (P)?

	Historically	Currently	Potentially
<b>Residential and commercial development</b>			
housing and urban areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
commercial and industrial areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
tourism and recreation areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Agriculture and aquaculture</b>			
annual and perennial non-timber crops	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
wood and pulp plantations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
livestock farming and ranching	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
marine and freshwater aquaculture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Energy production and mining</b>			
oil and gas drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
mining and quarrying	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
renewable energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Transportation and service corridors</b>			
roads and railroads	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
utility and service lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
shipping lanes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
flight paths	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Biological resource use</b>			
hunting and collecting terrestrial animals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
gathering terrestrial plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
logging and wood harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
fishing and harvesting aquatic resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Human intrusions and disturbance</b>			

recreational activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
war, civil unrest and military exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
work and other activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Natural system modifications**

fire and fire suppression	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
dams and water management/use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other ecosystem modifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Invasive and other problematic species and genes**

invasive non-native/alien species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
problematic native species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
introduced genetic material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Pollution**

household sewage and urban waste water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
industrial and military effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
agricultural and forestry effluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
garbage and solid waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
air-borne pollutants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
excess energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Geological events**

volcanoes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
earthquakes/tsunamis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
avalanches/landslides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Climate change and severe weather**

habitat shifting and alteration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
droughts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
temperature extremes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
storms and flooding	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Please write here any additional threats and comments/queries you have on the threats.**

## 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.

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

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

## Annex 3: IUCN Protected Areas Categories System

IUCN protected area management categories classify protected areas according to their management objectives. The categories are recognised by international bodies such as the United Nations and by many national governments as the global standard for defining and recording protected areas and as such are increasingly being incorporated into government legislation.

### **Ia Strict Nature Reserve**

Category Ia are strictly protected areas set aside to protect biodiversity and also possibly geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values.

### **Ib Wilderness Area**

Category Ib protected areas are usually large unmodified or slightly modified areas, retaining their natural character and influence without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition.

### **II National Park**

Category II protected areas are large natural or near natural areas set aside to protect large-scale ecological processes, along with the complement of species and ecosystems characteristic of the area, which also provide a foundation for environmentally and culturally compatible, spiritual, scientific, educational, recreational, and visitor opportunities.

### **III Natural Monument or Feature**

Category III protected areas are set aside to protect a specific natural monument, which can be a landform, sea mount, submarine cavern, geological feature such as a cave or even a living feature such as an ancient grove. They are generally quite small protected areas and often have high visitor value.

### **IV Habitat/Species Management Area**

Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many Category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

### **V Protected Landscape/ Seascapes**

A protected area where the interaction of people and nature over time has produced an area of distinct character with significant, ecological, biological, cultural and scenic value: and where safeguarding the integrity of this interaction is vital to protecting and sustaining the area and its associated nature conservation and other values.

**VI Protected area with sustainable use of natural resources**

Category VI protected areas conserve ecosystems and habitats together with associated cultural values and traditional natural resource management systems.