

Designation date: 11/01/2002

Ramsar Site no. 1146

Information Sheet on Ramsar Wetlands (RIS) 2006-2008 version

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

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DD MM YY

Designation date Site Reference Number

1. Name and address of the compiler of this form:

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2. Date this sheet was completed/updated:

September 28, 2007

3. Country:

The People's Republic of China

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Dalai Lake National Nature Reserve, Inner Mongolia

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site; or
- b) Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately; or
- ii) the boundary has been extended; or
- iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately; or
- ii) the area has been extended; or
- iii) the area has been reduced**

**** Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

The ecological characters and the criterions applied of this site remain unchanged.

7. Map of site:

Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a **hard copy** (required for inclusion of site in the Ramsar List):
- ii) **an electronic format** (e.g. a JPEG or ArcView image)";
- √ iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables.**

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The boundary is the same as the Dalai Lake National Nature Reserve.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

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.

Centre: 48°33' N, 117°30' E

Boundary: 47°50'-49°22' N, 116°50'-118°10' E

9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The Ramsar site is located in the west of the Hulunbeier Municipality, Inner Mongolia Autonomous Region. It lies across three administrative regions, i.e. Xinbarhuzuoqi County, Xinbarhuyouqi County and Manzhouli City. It is about 40 kilometers to the urban center of Manzhouli City.

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

The elevation ranges from 545 m to 784 m.

11. Area: (in hectares)

740 000 ha

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Dalai Lake National Nature Reserve is a comprehensive reserve, mainly protecting rare birds, wetlands and grasslands. The Ramsar site is located in the west of the Hulunbeier Municipality, northeast of Inner Mongolia Autonomous Region, Northeast China. The wetlands in the site consist of lakes, rivers, marshes, shrubs, grasslands and reed beds, taking the water system of

Dalai Lake as the water source. Wetlands, grasslands and deserts cover 44%, 55% and 1% of the reserve, respectively. Located in Mongolia Plateau, it has typical characteristics of wetlands in arid steppes. The primitive production mode of livestock breeding persists till today, making the wetlands hold a primitive and natural status.

The Ramsar site is an important inhabiting place and a stopover for the migratory birds in the East Asia-Australia route. There are abundant aquatic plants, fishes and shrimps in this well protected site. Every spring, tens of thousands of waterfowls fly from Australia and South China and nest here. A total of 310 bird species have been recorded, including many national protected bird species such as *Grus japonensis*, *Cygnus Cygnus* and *Aquila chrysaetos*. In particular, the Ramsar site is the northernmost breeding habitat of *Cygnus olor* in China.

The wide wetlands and grasslands in this site provide substantial basic resources for the development of livestock breeding, fishery, urban water supply and tourism in Xinbarhuzuoqi County, Xinbarhuyouqi County and Manzhouli Municipality. It can support 230 000 local people with domestic water source. With typical and primitive ecosystems and rich biodiversity, the Dalai Lake Reserve is playing an important role in biodiversity conservation in the world. It is also an important base for studying wetland ecosystems in arid grassland regions.

13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1	2	3	4	5	6	7	8	9
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14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 2:

According to the IUCN Red List (2007), the site holds 1 critically endangered species, 3 endangered species and 5 vulnerable threatened bird species (9 species in total) as shown in the following table.

Species Latin Name	IUCN Category
<i>Grus leucogeranus</i>	CR
<i>Grus japonensis</i>	EN
<i>Anser cygnoides</i>	EN
<i>Ciconia boyciana</i>	EN
<i>Aquila clanga</i>	VU
<i>Grus vipio</i>	VU
<i>Grus monacha</i>	VU
<i>Otis tarda</i>	VU
<i>Larus relictus</i>	VU

Criterion 5:

There are totally over 80 000 waterfowls in this site every year. According to the investigation in the spring of 2004, 132 waterfowl species falling into 31 families of 14 orders were recorded. Among them, over 12 000 individuals of *Cygnus cygnus* and *Cygnus columbianus* were recorded in the Beir Lake area. Over 13 000 individuals of geese and ducks and over 20 000 individuals of plovers and sandpipers were recorded in the Wulannuoer area. In the spring of 2005, 35 373 individuals of *Anas strepera* and thousands of plovers and sandpipers and geese and ducks were recorded in the Wulannuoer area. In the autumn of 2006, over 55 000 bird individuals falling into 33 families of 10 orders were recorded in the Wulannuoer area.

Criterion 6:

Scientific name	Abundance	1% abundance	Survey time
<i>Anas strepera</i>	35373	7500	Spring of 2005
<i>Tadorna ferruginea</i>	1582	750	Autumn of 2006
<i>Platalea leucorodia</i>	377	100	Spring of 2007
<i>Anser cygnoides</i>	3174	800	Autumn of 2006
<i>Himantopus himantopus</i>	4500	1000	Spring of 2007
<i>Vanellus vanellus</i>	12017	10000	Spring of 2007

Criterion 7:

Dalai Lake and its neighboring water areas support a total of 30 fish species and 1 fish subspecies, falling into 6 families of 3 orders. Fish fauna is relatively complex. Both the species of the Siberia area and the Northeast China co-exist here. The species of Northeast China include Northern Plain Complex, Northern Mountain Complex and Arctic Complex. Some species of Chinese Plain Complex such as *Cuiter erythropterus* and *Erythrocuiter mongolicus* also exist here with high yield.

Criterion 8:

The major spawning areas of *Cyprinus carpio* and *Carassius auratus* in Dalai Lake are Wuerxun River, Kelulun River and the Galadabaixin area. During the spawning period, most individuals of *Cyprinus carpio* and *Carassius auratus* in Kelulun River migrate upstream, some of them spawn in the rivers and a small part of the others spawn in the marshlands of Galadabaixin. While most individuals of those two fish species in Beir Lake migrate downstream to Wulannur Lake and Wuerxun River to spawn.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Eastern Prairie Subregion, Mengxin Region, Palaearctic realm

b) biogeographic regionalisation scheme (include reference citation):

The Biogeography of Fauna in China (Zhang Rongzu, 1999)

16. 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.

Geology and geomorphology: Dalai Lake is a part of Hulunbeir Plateau. From a tectonic view, it is located in the Inland China Subsidence Zone of East Asia Giant Structural System. Geomorphologic types of the site include lake bed, low hill, lacustrine plain, alluvial plain, sand dune, riverine marsh and plateau.

Origins: The site is naturally originated. Climatic and geological conditions have kept changing since the Quaternary Period. Accordingly, the water level of the Dalai Lake fluctuated with time. The Dalai Lake Water System was finally formed with the Dalai Lake as the main part, and the adjacent Kelulun River, Wuerxun River, Halaha River and Beir Lake as the accessories.

Hydrology: The Dalai Lake Water System is composed of the Dalai Lake, Halaha River, Beir Lake, Wuerxun River, Wulannuoer region, Kelulun River, Dalaneluomu River and so on. The total length of the rivers within the Dalai Lake Water System reaches 2374.9 km. The water level of Dalai Lake keeps stable from early November to next April and then gradually rises from early spring.

Soil types: Because of drought and strong winds, the site has a thin soil layer and a rough land surface. Castanozem soil, meadow soil and bog soil are the major soil types of the site.

Water quality: The water quality was analyzed in July 2005 and the average values of selected indicators are as follow. pH: 9.08, water temperature: 23.5 °C, suspended substance: 19.4 mg/L and transparency: 38 cm.

Water depth: The average water depth of Dalai Lake is 5.7 meters. The water depth basically remains stable.

Climate: This Ramsar site belongs to temperate semiarid continental climate zone. The annual average temperature is between -1.3 and 0.4 °C, the extreme minimum and maximum temperatures are -42.7 °C and 40.1 °C, respectively. The annual effective accumulated temperature is 2 336-2 675 °C, the frost-free period is 110-160 days. The mean annual precipitation and evaporation are 247-319 mm and 1 636 mm, respectively. Northwest wind prevails in a year. The main weather disasters include drought, gale, white disaster (snow disaster), dark disaster (no snow in winter), freezing rain, melting snow and snowstorm.

17. Physical features of the catchment area:

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

The catchment area of the Dalai Lake within China is about 37 214 km². Geomorphologic types include lake bed, low hill, lacustrine plain, alluvial plain, sand dune, riverine marsh and plateau. The lake area is relative large with obvious valleys and river channels. The west and the east of the Dalai Lake are low-hill areas and plains, respectively. Some small oxbow lakes lie in the surroundings. Numerous reeds and Salix shrubs grow in the lowlands on the both sides of the river valleys. Meadows, saline and alkaline lands and wide grasslands are distributed outside the lowlands.

The Dalai Lake region is a part of Hulunbeir Plateau. From a tectonic view, it is located in the Inland China Subsidence Zone of East Asia Giant Structural System. Its geomorphologic type is lake bed, so is that for the Beir Lake (the part within China) and Wulannuoer region.

Castanozem, the regional soil type of the reserve, mainly distributes at low mountainous areas, alluvial plains and riverine lowlands. Meadow soil and bog soil are other major soil types which mainly distribute in the valley terraces and basins.

The land cover types in the catchment are grassland, lake and river. The grasslands are mainly used for livestock breeding, the lakes for fishery and drinking and the rivers for drinking.

This catchment belongs to temperate semiarid continental climate zone. Spring is windy and dry, summer is warm and short, autumn has rapidly declining temperature and early frost, and winter is severely cold and long. The annual sunshine duration is 3104.7 hours and the annual average wind speed is 4.0-5.0 m/s. Generally, there are over 40 days with winds stronger than 17.0 m/s in a year.

18. Hydrological values:

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

The Dalai Lake region is the only lowland of Hulunbeir Plateau. It plays an important role in flood control and sediment trapping.

The water storage of the Dalai Lake is 13.85 billion cubic meters. It has a high osmotic pressure, being important for groundwater recharge.

Larges areas of reeds and other hydrophytes grow in the water edge of the Dalai Lake. Therefore, the wetland has a strong capability of biodegradation and is important for maintaining water quality.

19. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal:

A	B	C	D	E	F	G	H	I	J	K	Zk(a)
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Inland:

L	M	N	O	P	Q	R	Sp	Ss	Tp	Ts	U	Va	Vt	W	Xf	Xp	Y	Zg	Zk(b)
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Human-made:

1	2	3	4	5	6	7	8	9	Zk(c)
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b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

O (33.16%), M (5.40%), Tp (1.62%), W (1.35%), R (0.81%), N (0.68%), Q (0.53%), p (0.41%)

20. General ecological features:

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

The Ramsar site is mainly composed of large permanent freshwater lakes, rivers and wide grasslands. The dominant wetland species are *Phragmites australis*, *Typha angustata*, etc. The soil is rich in organic matters. The insects and fishes are rich in both species and individual number, and thus can provide sufficient foods for birds. Aigrette, geese and ducks, gulls, cranes, and many other wetland bird species assemble here. The wetlands are not only important inhabiting places but also important hiding places for the birds.

The typical wide grasslands, with *Aneurolepidium chinense* as the constructive species, have relative low height. Many typical grassland bird species of the Mengxin Region live here, such as *Otis tarda*, *Anthropoides virgo*, *Melanocorypha mongolica* and *Auda arvensis*. There also live a large amount of *Vanellus vanellus* in the meadows, as well as small snipe and emberizidae species.

The emerged-plant marshes, with *Phragmites australis* and *Typha angustata* as the dominant constructive species, provide favorable inhabiting and hiding places for the birds. Furthermore, they are the main breeding places for both waterfowls and fish.

The submerged-plant marshes and near shore mud swamps, with *Potamogeton octandrus* as the dominant constructive species, provide favorite feeding grounds for the birds.

The thicketization-marshes are the main habitats of passerine birds. Many *Salix* shrubs grow here.

The shallow lakes are rich in aquatic grasses. Many waterfowls, fishes and benthos live here. They are the important feeding grounds for the waterfowls, as well as inhabiting places for the swimming birds (such as geese and ducks, Podicedidae, *Fulica atra*, etc.), gulls and small plovers and sandpipers.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) 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 RIS.**

The habitats of the Ramsar site can be divided into several types: clear water area, alluvial marsh and reed marsh. Marsh plants are the most important vegetation in these wetlands, which are widely distributed in the river floodplains and seasonally or permanently inundated areas. The dominant constructive species are *Phragmites australis*, *Scirpus fluviatilis* and *Salix* shrubs.

Parent fishes in the Dalai Lake and Beir Lake migrate to the marshes with shallow waters to spawn. Marsh plant communities are very important for the breeding of both birds and fishes. Reed marshes mainly exist in the shallow water area in southwest Dalai Lake and the Wulannur Lake. Galadabaixin Core Area and Wulannur Core Area of the Nature Reserve have extensive reed beds. *Salix* shrubs mainly exist in the riverine areas.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. ***Do not include here taxonomic lists of species present - these may be supplied as supplementary information to the RIS.***

The Dalai Lake wetlands are located in a major migratory route of waterfowls in the eastern inland China. It is also a staging site of waterfowls on the Northeast Asia-Australia Flyway. Summer migratory birds and resident birds are the main part of the avian fauna, accounting for 80%. A total of 310 bird species have been recorded, including 9 National First-Class Protected Animals (*Grus leucogeranus*, *Grus japonensis*, *Grus monacha*, *Aquila chrysaetos*, *Haliaeetus leucoryphus*, *Larus relictus*, *Otis tarda*, *Ciconia nigra* and *Aquila heliaca*) and 35 National Second-class Protected Animals. Waterfowls constitute the major part of the 310 bird species. Hundreds of thousands of birds stage or breed in this site every year, particularly for geese and ducks as well as plovers and sandpipers. Some endangered species in the world (e.g. *Anthropoides virgo*, *Numenius madagascariensis* and *Numenius minutus*) are also found in the Nature Reserve. In addition, *Circus aeruginosus*, another world endangered species, also has a relatively large number in the site (ten individuals were observed at one time at the most). The Ramsar site is also one of the few important breeding sites for *Cygnus olor* and *Anser cygnoides* in China.

23. 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:

Social values

Tourism: This region is rich in tourism resources such as the primitive grasslands and lakes. Tourists can enjoy traditional food, sightseeing, bird watching, boating and Mongolian customs and cultures.

Education: The reserve has become an important education base of patriotism and environmental protection for its complete ecosystem and rich biodiversity.

Scientific research: The Dalai Lake is being used as a major base for studying grassland and wetland ecosystems and their fauna and flora.

Livestock grazing: The natural grasslands surrounding the Dalai Lake support a total of 1.5 million livestock.

Water supply: The Dalai Lake is a major water source for local people and livestock in the surroundings.

Fishery: The Dalai Lake can produce over 10 000 tons of economic fish per year.

Cultural values

Historic Significance: The Dalai Lake and its surrounding grasslands are cradles of many herder nations in North China. It provided historic stages for Mongolian People, Qidan People and Nüzhen People in the past. Traditional tourism, livestock grazing and fishery activities are closely related to maintenance of natural process and ecological characteristics of wetlands in the Dalai Lake region.

Potential values

The long-term existence of the Dalai Lake is critical for maintaining regional climate, increasing air humidity, increasing rainfall, maintaining groundwater level and achieving sustainable use of Hulunbeir Grasslands.

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?

No.

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:

24. Land tenure/ownership:

a) within the Ramsar site

The water areas of the Dalai Lake and Beir Lake are owned by the state. However, the Dalai Lake Fishing Farm has the tenure to use the lake for fishing activities. Dalai Lake National Nature Reserve has tenure to use part core areas.

b) in the surrounding area: state and collective ownership.

The surrounding grasslands are under collective ownership.

25. Current land (including water) use:

a) within the Ramsar site:

The core area of the reserve is 75951.50 ha which is protected by national laws. Utilization and exploitation activities are forbidden. The main activities in the region are nature conservation, scientific research, education and ecotourism. Other parts of the reserve are buffer areas and experiment areas, where proper utilization activities are permitted, such as livestock feeding, fishing and reed producing.

b) in the surroundings/catchment:

The water in the surrounding area is supplied for domestic, industrial and grazing uses. Current human activities have not significantly affected water quality or reduced wetland areas.

26. 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 Ramsar site:

Influenced by the decreasing of precipitation in recent years, water supply decreased and thus the water level of Dalai Lake descended.

b) in the surrounding area:

The headwaters of Wuerxun River and Kelulun River, the water-supply river-systems for the Dalai Lake, are located outside this Ramsar site. The decrease of precipitation caused by climate change could affect the water supply for the Dalai Lake.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar 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.

Approved by the State Council in October 1992, the 7 400-km² Dalai Lake National Nature Reserve was established in September 1993. The boundary has been demarcated. Protection stations have been established in the three core areas and one tourism area to implement daily patrol and management.

The reserve became a UNESCO Biosphere Reserve in 2002.

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

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

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

An officially approved management plan, "The Dalai Lake National Nature Reserve Management Plan during 2002-2006", has been implemented. This management plan was established by local residents and the government.

d) Describe any other current management practices:

The current Dalai Lake National Nature Reserve Management Bureau, established in 1993, is responsible for strict management and protection of the Ramsar site. The specific management regulations include: strict prohibition of agricultural reclamation, prohibition of uncontrolled fishing, prohibition of overgrazing, restriction of sand and stone extraction and strict prohibition of hunting.

The Dalai Lake Nature Reserve Management Bureau has signed agreements with local government and communities on joint conservation of the Ramsar site.

The hierarchical-management methods, combined with a vertical and horizontal management system, have been used to manage Dalai Lake National Nature Reserve since 1997. The vertical system can be described as follow: the general managers are responsible to the stationmasters, stationmasters to the branch principals and branch principals to the principal. The horizontal management system means that the whole reserve is divided into six parts and every part is managed by a certain station. In a station, except a stationmaster with responsibilities for the operation of his station, there are three other staffs with responsibilities of general management, scientific research and education, respectively.

The site is not included in the Montreux record.

28. Conservation measures proposed but not yet implemented:

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

“The Dalai Lake National Nature Reserve Management Regulations, has been submitted to
“Regulation of the Dalai Lake National Nature Reserve” has been submitted to the People’s Congress of Inner Mongolia Autonomous Region.

29. Current scientific research and facilities:

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

The Reserve Management Bureau has established its management stations in Galadabaixin Core Area, Wulannur Core Area, Hulungou Core Area and Chengjisihan Shuanmazhuang Tourism Area. The staff of the Nature Reserve has carried out some observations on some rare and endangered bird species, e.g. *Platalea leucorodia*, *Otis tarda* and *Cygnus olor*.

The reserve has cooperated with Northeast Forestry University in the research of large wild animals living on the grasslands since 2003. There research articles have been published. The reserve also provides practice base for undergraduates. Every year, four or five students of this university practice here.

The Nature Reserve has cooperated with Qufu Normal University in wolf research since 2004. Four research articles have been published. The Nature Reserve also provides practice base for graduates of this university.

The reserve has been participating in a GEF project (Protection of Migratory Route of Asian White Crane and Other Migratory Waterfowls of Ramsar Sites and Important Wetlands) since 2004. Through the project, the reserve carried out monitoring for waterfowls, vegetation and hydrology, which was highly praised by the GEF project office.

30. 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.

In 2004, two management stations in Wulannur and Galadabaixin Core Areas were remedied and the management station in Chengjisihan Shuanmazhuang Tourism Area was reestablished by the Nature Reserve Management Bureau. Besides the routine work of management and protection, efforts have been made to raise the environmental protection awareness of tourists.

In 2006, the Nature Reserve Management Bureau re-produced 5 000 copies of brochures to introduce the reserve and its key protected targets.

In 2006 and 2007, the reserve cooperated with Dawur Reserve in Mongolia and Kurgalski Reserve in Russia in organizing painting game for primary and middle school students.

The bureau has established a branch office in Xinbarerhuyouqi County. This branch office has been taking lectures on environmental protection for primary and middle schools every year since 1996. Facilities such as specimen exhibition room, dormitory, dining hall and garage have been established. The construction area is about 300 m² in total.

An office building, with a media classroom and an exhibition room used for the education of primary and middle school students, was established at Hailaer District in Hulunbeier Municipality in 2006.

31. Current recreation and tourism:

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

The Dalai Lake has rich tourism resources. Presently, the tourism activities are concentrated in the Xiaohekou area which is located in the north lakeside of the Dalai Lake. With the Dalai Lake Hotel as the center, many tourism activities, such as traditional food, angling and boating, have been carried out since the late 1980s. About 150 000 tourists visit here per year.

The reserve has established Xiaohekou Tourism Area Management Station and Chengjisihan Shuanmazhuang Tourism Area Management Station. The stations have the responsibilities of managing and supervising the tourism activities in their jurisdictions.

32. Jurisdiction:

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

The wetland is under jurisdiction of Xinbarhuzuoqi County Government, Xinbarhuyouqi County Government and Manzhouli Municipal Government.

Some departments of Hulunbeier Prefecture Government e.g. the Environmental Protection Office, Forestry Bureau, Agriculture and Husbandry Bureau and Land Use Planning Bureau have responsibilities to protect the environment of the Nature Reserve.

33. 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.

Institution: The Management Bureau of Dalai Lake National Nature Reserve

Principal: Tegen Bu (director)
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Scientific/technical references only. If biogeographic regionalization scheme applied (see 15 above), list full reference citation for the scheme.

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