

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

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 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
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.

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

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Designation date

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Site Reference Number

2. Date this sheet was completed/updated:

June 15, 2012

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.

Maidika

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:

Compared with the previous RIS, the ecological character remains unchanged; the Ramsar Criterion 8 is added.

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.

This Ramsar Site is located with the core area of Maidika Wetland 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.

Center: 31°11'55"N, 92°40'51"E

Extent: 31°4'3"-31°20'28"N, 92°30'3"-92°48'0"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.

This Ramsar site is administratively located in Chali County of Nakchu District, Tibet Autonomous Region, Western China. Nakchu Town, the administrative center of Nakchu District, is located 95 km northwest to the site.

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

Average: 4,900 m;
 Maximum: 5,000 m,
 Minimum: 4,800 m.

11. Area: (in hectares)

43,496 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.

Geographically, this Ramsar site is situated between the Tangla Mountains and the Nojin Tangla Mountains on the Qinghai-Tibet Plateau, known as “Roof of the world”. The wetland is among the highest-altitude wetlands in the world (above 4800 m). The wetland is the most representative and typical plateau complex wetland composed of lakes, marshes and meadows. With unique natural environments, abundant water resource and productive grasslands, this Ramsar Site provides good breeding and perching habitats for plateau animals and waterfowls. It serves as a very important site for the wildlife of the Tibet Plateau. According to the survey, there are about 70 bird species inhabiting in the wetland, including some such rare birds as Black-necked Crane (*Grus nigricollis*) and Pallas's Fish-eagle (*Haliaeetus leucoryphus*). Particularly, it is of great significance for the migration and breeding of the migratory birds such as *Tadorna ferruginea* and *Anser indicus*. In addition, some rare mammal species such as *Panthera uncia* live in this Ramsar site. As the source of the Lhasa River, Maidika wetland plays a critical role in prevention of seasonal flood, the water regulation and storage of the Lhasa River, maintaining water quality and ecological security of the Lhasa River.

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

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 1:

This Ramsar site presents typical alpine wetlands in Tibetan Biogeographic Province, Palaeartic Realm. This site is unique in this biogeographic region because it contains a large compound wetland system which is composed of alpine lakes, swamp-meadows and rivers.

Criterion 2:

English Name	Latin Name	IUCN Category	CMS Appendix	CITES Appendix	Class of National Protection
Mammals					
Snow Leopard	<i>Panthera uncia</i>	EN	-	I	I
Birds					
Black-necked Crane	<i>Grus nigricollis</i>	VU	I/II	I/II	I
Saker Falcon	<i>Falco cherrug</i>	EN	I	II	II
Pallas's Fish-eagle	<i>Haliaeetus leucoryphus</i>	VU	II	II	I

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:

Cold-winter (continental) deserts and semideserts, Tibetan Biogeographic Province, Palaearctic Realm.

b) biogeographic regionalisation scheme (include reference citation):

A Classification of the Biogeographical Provinces of the World (Miklos D.F. Udvardy, 1975).

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: The main part of Maidika wetland is the headwater region of Maidicangbu (a tributary of Lhasa River) which is located in the northern foot area of the mid part of Mt. Nojin Tangla. Geologically, this site is located to the south of the fault zone of Bangong Cuo-Dongqiao-Nu River and in the east of Gangdese-Nyainqentanglha fold tectonic zone of northern Tibet. The geomorphological types within the site include lake basin, valley and mountain terrain.

Origins: Naturally originated.

Hydrology: The water supply of this site is mainly from alpine melting water, groundwater and rainfall. Among these three ways, alpine melting water contributes the most. Water area is relatively small in winter. The main runoffs are not frozen and there only exists shore ice.

Water quality: Because the water in the wetland is mainly from melting water, the water is very clear, with little sediment concentration. The mineralization degree of water is about 120-200 mg/L.

Water depth: Except the main streams with relatively deep water, the water in this site is generally shallow (the maximum depth < 3m).

Soil type: The main soil types include alpine frigid desert soil, alpine meadow soil, sub-alpine meadow soil, bog soil and swamp meadow soil.

Climate: This Ramsar site belongs to plateau sub-frigid semi-humid climate zone. The mean annual temperature is 0.9 °C. July is the hottest month with an average temperature of 9.5°C. January is the coldest month with an average temperature of -11.9 °C. The mean annual precipitation is 694.11 mm and the rainfall mainly occurs during May-September. The mean annual evaporation is 1410.1 mm.

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 covers about 4,000 km². The general topography of the catchment slopes from the northwest to the southeast, with Ayila Mountains, Lugongla Mountains, Jielala Mountains, Gangbala Mountains, Chula Mountains, Bengxila Mountains in the surroundings, all of which are branch ranges of Mt. Nojin Tangla. The main soil type is alpine frigid desert soil. The catchment belongs to plateau sub-frigid semi-humid climate zone with an average temperature of 9.5 °C, a mean annual precipitation of 694 mm and a mean annual evaporation of 1410 mm.

18. Hydrological values:

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

Madika is a typical plateau wetland. As the source of the Lhasa River, the wetland plays a critical role in prevention of seasonal flood, water regulation and storage of the Lhasa River, maintaining water quality and ecological safety of the Lhasa River. The large area of the wetland in this Ramsar site has a strong effect on regulating regional climate of the Lhasa River Basin. Also, the wetland plays an important role in water supply for the surrounding residents.

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)

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

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

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.

Tp (58%), Ts (22%), O (12%), Va (6%), W (2%)

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 flora in this Ramsar site is mostly composed of herbaceous plants (accounting for 97.5%). The dominant vegetation types including alpine shrub, alpine meadow, alpine cushion vegetation, swamp vegetation and aquatic vegetation. In the wetland, zonal alpine meadow vegetation develops along the valleys, lakes and mountain slopes. Some alpine dwarf shrubs dominated by *Caragana versicolor* are distributed on local shady slopes. There are 12 major formations, including Form. *Caragana versicolor-Pentaphylloides fruticosa*, Form. *Kobresia pygmaea*, Form. *Kobresia spp-Polygonum sphaerostachyum*, Form. *Kobresia pygmaea-Stipa purpurea*, Form. *Potentilla anserine*, Form. *Arenaria musciformis*, Form. *Androsace tapete*, Form. *Kobresia littledalei*, Form. *Carex stenophylla*, Form. *Triglochin maritimum*, Form. *Potamogeton pectinatus* and Form. *Hippuris vulgaris*. The shallow-water areas (10-100cm water depth) are usually represented as *Potamogeton pectinatus* communities which are spawning ground for many fish species. This site can provide abundant food and good habitats for aquatic and swamp-dependent animals. There are about 70 species of birds, including a variety of rare and endangered species.

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.*

This Ramsar site holds seed plants with 272 species of 122 genera in 35 families, of which there are 206 species dicotyledon of 94 genera in 28 families and 66 species monocotyledon of 28 genera in 7 families. All plants are angiosperms.

22. Noteworthy fauna:

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., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

This Ramsar site is rich in animal species because of its abundant wetland resources and large area. According to studies, this site holds 98 species of vertebrate, including 4 fish species, 1 amphibian species, 2 reptile species, 70 bird species and 21 mammal species. The mammal species belong to 12 families of 5 orders. The birds belong to 26 families of 12 orders. The noteworthy species include:

English Name	Latin Name	CITES Appendix	Class of National Protection
Birds			
Golden Eagle	<i>Aquila chrysaetos</i>	II	I
Lammergeier	<i>Gypaetus barbatus</i>	II	I
Himalayan Vulture	<i>Gyps himalayensis</i>	I	II
Tibetan Snowcock	<i>Tetraogallus tibetanus</i>	I	II
Eurasian Eagle-owl	<i>Bubo bubo</i>	II	II
Little Owl	<i>Athene noctua</i>	II	II
Upland Buzzard	<i>Buteo hemilasius</i>	II	II
Northern Harrier	<i>Circus cyaneus</i>	II	II
Short-eared Owl	<i>Asio flammeus</i>	II	II
Black Kite	<i>Milvus migrans</i>	II	II
Tawny Eagle	<i>Aquila rapax</i>	II	II
Cinereous Vulture	<i>Aegypius monachus</i>	II	II
Greater White-fronted Goose	<i>Anser albifrons</i>	-	II
Mammals			
Eurasian Otter	<i>Lutra lutra</i>	I	II
Tibetan Gazelle	<i>Procapra picticaudata</i>	I	II
Bharal	<i>Pseudois nayaur</i>	I	II
Argali	<i>Ovis ammon</i>	I	II
Kiang	<i>Equus kiang</i>	-	I
Eurasian Lynx	<i>Lynx lynx</i>	-	II
Gray Wolf	<i>Canis Lupus</i>	-	II
Brown Bear	<i>Ursus arctos</i>	-	II

In addition, there are 5 animal species under the second-class protection of the Tibet Autonomous Region: *Anser indicus*, *Anas strepera*, *Tadorna ferruginea*, *Vulpes vulpes* and *Vulpes ferrilata*.

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:

This Ramsar site is important for the maintenance of the productivity of surrounding pastures, which is of significance to safeguard local herdmen's lives. The majority of local residents are Tibetans. Influenced by Tibetan Buddhism, they take fish as the symbol of god and have a custom of not eating fish. Also, they live in harmony with wild animals. For example, they consider birds (e.g. Black-necked Crane) as a symbol of good luck. They supply food to those birds which find it hard to find foods in winter (such as *Tetraogallus tibetanus*). All these customs produce important effects on the protection of local wetland ecosystems.

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:

State ownership; the reserve has the right of utilization.

b) in the surrounding area

State ownership; partly contracted.

25. Current land (including water) use:

a) within the Ramsar site:

The land use of the wetlands in this Ramsar site is represented as conservation. A small part of the grasslands is used for pasturage. There is no other land use in this site.

b) in the surroundings/catchment:

The land use types include conservation and pasturage.

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 climate change, the water supply of wetland is declining, which may exert some adverse influence on the wetlands.

b) in the surrounding area:

The grazing activities in the surrounding areas could produce some potential negative impacts on the wetlands.

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.

This nature reserve was established in 2003 at county level, and promoted to autonomous-region level in 2007. Then, the reserve was administrated by Nakchu Forestry Bureau together with the government of Lhari County.

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?:

The management plan being implemented is *Ecological Monitoring System Construction of Maidika Wetland in Tibet*, which was approved in 2006 and started in 2009. The contents of this plan include the construction of two monitoring station and associated infrastructures, and the equipment of monitoring instruments.

d) Describe any other current management practices:

The reserve was administrated by Nakchu Forestry Bureau together with the government of Lhari County. Now, there are five rangers in charge of the daily protection work in the reserve.

28. Conservation measures proposed but not yet implemented:

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

The project *Ecological Protection and Restoration for Maidika Wetland Nature Reserve of Tibet* is in preparation.

29. Current scientific research and facilities:

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

In June 2007, Central-South Planning and Design Institute carried out a series of comprehensive scientific investigations on Maidika wetland, encompassing the investigations on topography, hydrology, vegetation, flora, fauna, etc.

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 2005, Nakchu Forestry Bureau and Lhari Forestry Bureau carried out some propaganda activities on wetland protection in Maidika wetland and the surrounding areas. From then on, reserve rangers and staffs of Forestry Bureau and Cuola Township government often carry out publicity and education work on wetland protection.

31. Current recreation and tourism:

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

There is no tourism activity at present, but it has potential for eco-tourism development.

32. Jurisdiction:

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

Territorial jurisdiction:

The government of Chali County, Tibet Autonomous Region.

Functional Jurisdiction:

Forestry Bureau of Tibet Autonomous Region

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.

Director: Zhi Mu

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34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Wu, Zhengyi. 1980. China vegetation. Beijing: Science Press.

Central-South Planning and Design Institute. 2007. Report of scientific survey in Maidika wetland.

Lu, Jianjian. *Wetlands in China*. Shanghai: East China Normal University Press
