Ramsar Information Sheet

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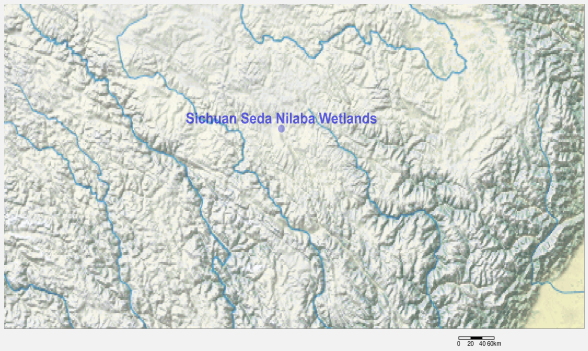
China

Sichuan Seda Nilaba Wetlands



Designation date	28 October 2022
Site number	2509
Coordinates	32°46'57"N 99°39'44"E
Area	60 760,04 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Site is situated in the southern foot of Bayan Har Mountain in Sichuan Seda County on the southeast edge of the Qinghai-Tibet Plateau. The Site is in a wide valley surrounded by mountains and is composed of wetlands of the Nilaba area and the Kangmarangduo area, forming a relatively closed wetland environment. It is one of the highest plateau inland wetlands in the world. The Site consists of marshes, lakes, rivers, and peat swamps over 13,600 hectares. The peat swamps have carbon pool of 5.04 million tons and serve as an important carbon sink in the biogeographic region.

This alpine wetland ecosystem harbours various types of scrub, alpine meadow and swamp vegetation. The meadows are dominated by Carex tibetikobresia and Care xmuliensis which provide habitats, food sources, and other resources for nesting and breeding for migratory and threatened species such as the black-necked crane (Grus nigricollis), black stork (Ciconia nigra), and white-tailed sea eagle (Haliaeetus albicilla). It also supports many endemic and threatened species of the Qinghai-Tibet Plateau, such as Tibetan antelope (Procapra picticaudata) and snow leopard (Uncia uncia). The Site is one of the highest wetlands (altitudinally) worldwide where fishes are found. The fish species distributed in the Site are endemic to the Qinghai-Tibet Plateau and the Site offers important food resources, spawning areas, and nursery grounds for these fishes.

The Site is adjacent to the Sichuan Changshagongma Wetlands (Ramsar ID 2348), and they both are important parts of the "China Water Tower". It receives snow melt water and surface runoff from the mountains and plays an important role in water conservation, flood storage, climate regulation, and water level regulation for the downstream reaches. With the State support, land degradation has been controlled by returning grazing land to grassland and promoting grassland ecological compensation measures.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency: Seda County Nature Reserve Conservation Center

Postal address:
No. 6 Street, East Section of Jinma Avenue 626699
Seke Town, Seda County
Ganzi Tibetan Autonomous Prefecture
P.R. China

National Ramsar Administrative Authority

Institution/agency: Ramsar Administrative Authority of the People's Republic of China

Postal address: No.18 Hepingli East Road, Dongcheng District Beijing, P.R. China

2.1.2 - Period of collection of data and information used to compile the RIS

From year: 2019

To year: 2021

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Sichuan Seda Nilaba Wetlands

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Former maps: 0

Boundaries description

The boundary of the Site is 99.76% similar to the Sichuan Seda Nilaba Wetland Nature Reserve with only difference being that the Site does not consist two residential areas called Dongran First Village and Geze Village. The Site is composed of wetlands in the Nilaba and Kangmarangduo area.

The north-facing slopes of the Tangbai Mountains forms the southern border of the Nilaba area while the east-facing slopes of the Romagongma Mountains forms the western border. From the northern most point at the junction of Qinghai and Sichuan Sections, adjacent to the Romagongma Mountains, the permanent wetland area of Niqu River forms the Northern border. The west-facing slopes of the Wengbulong Mountains forms the eastern border of the Nilaba area.

The East side of the Kangmarangduo area is bordered by the western slope of the Leke Mountain that extends to the east-facing slopes of Kangma Mountain in the West with bordering the north facing slope of the Ladagongma Mountain in the South. The northern border is formed by the junction of the south-facing slopes of Dagexiari Mountain and the eastern side of the Xiaqu River.

2.2.2 - General location

a) In which large administrative region does the site lie? Ganzi Tibetan autonomous prefecture, Sichuan province, People's Republic of China

b) What is the nearest town or population centre? Niduo Town and Dazhang Town

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes ○ No ◉

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes ○ No ◉

2.2.4 - Area of the Site

Official area, in hectares (ha): 60760.04

Area, in hectares (ha) as calculated from GIS boundaries: 60753.72

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Udvardy's Biogeographical Provinces	Evergreen sclerophyllous forests, scrubs or woodlands, Oriental Deciduous Forest Biogeographic Province, Palaearctic Realm
Udvardy's Biogeographical Provinces	Cold-winter (continental) deserts and semideserts, Tibetan Biogeographic Province, Palaearctic Realm

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

☑ Criterion 1: Representative, rare or unique natural or near-natural wetland types

Hydrological services provided	Located in the southeast edge of the Qinghai-Tibet Plateau and the transition area to the Hengduan Mountains, the Site has an average elevation of 4180 m and is mainly dominated by peat swamps, which are unique to the biogeographic region. The Site is composed of Nilaba (20615 ha) and Kangmarangduo (3025 ha) areas, where Nilaba covers 88% of forest-free peat land, 93% of permanent freshwater herbaceous marshes, and 42% of river wetlands of the whole Site. The wetlands receive the glacier and snow melt water and surface runoff from the plateau mountains which can play the function of water recharge and water storage for the middle and lower reaches of the Dadu River and Yalong River in the Yangtze River basin, as well as help in controlling surface erosion, balancing the downstream water volume and regulating flood.
Other ecosystem services provided	The peat resource in the site is abundant as the peat swamp area covers 13,600 hectares of the Site with the peat carbon pool of 5.04 million tons. It is a eutrophic herbaceous peat, and the dominant plants are Carex tibetikobresia and Carex muliensis. The organic carbon content of the surface soil can be more than 70 g/kg, with a thickness of 2-3 m on average, that can reach up to 10 m. The peat soils has an irreplaceable role in regulating climate and reducing the greenhouse effect because they serves an important carbon sink.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	The Nilaba Wetlands support rare and threatened species such as the steppe eagle (Aquila nipalensis, EN), saker falcon (Falco cherrug, EN), alpine stream salamander (Batrachuperus tibetanus, VU), desert cat (Felis bieti, VU), snow leopard (Uncia uncia, VU), alpine musk deer (Moschus chrysogaster, EN) and other species. See 3.3 for details. Among them, the desert cat (Felis bieti, VU), snow leopard (Uncia uncia, VU) and alpine musk deer (Moschus chrysogaster, EN) are only distributed in the Kangmarangduo area, and other threatened species are found in both areas. The site is a plateau wide valley, which is affected by the melting water of ice and snow in the surrounding mountains, forming a relatively closed wetland environment. It is rich in wetland resources, including swamps, lakes, rivers and other wetland types, providing feeding and other natural habitat conditions for raptors (steppe eagle and saker falcon), rare amphibians (alpine stream salamander), and mammals (desert cat, snow leopard, musk deer).

☑ Criterion 3 : Biological diversity

Justification	The site belongs to the flora sub-region of the Qinghai-Tibet Plateau in the holarctic region and is rich in alpine species diversity, with 163 species of vascular plants, 110 species of birds and 34 species of mammals. Among them, Carex tibetikobresia and Carex muliensis are endemic plant species to the Qinghai-Tibet Plateau region. Similarly, there are some fishes and amphibians endemic to the Qinghai-Tibet region, such as heavy lips fish (Ptychobarbus chungtienensis), Paksmokk-paljasosman (Gymnodiptychus pachycheilus), Skrabalka vysokohorska (Schizopygopsis malacanthus), Mrenice vychodni (Triplophysa orientalis), plateau brown frog (Rana kukunoris), plateau frog (Nanorana pleskei) and boulenger's high altitude toad (Scutiger boulengeri). Most of these endemic species are important food sources of black-necked crane (Grus nigricollis), black stork (Ciconia nigra), steppe eagle (Aquila nipalensis), saker falcon (Falco cherrug), and other rare and threatened birds. The diverse habitat types also provide habitats for rare and threatened wildlife such as alpine stream salamander (Batrachuperus tibetanus), desert cat (Felis bieti), snow leopard (Uncia uncia), alpine musk deer (Moschus chrysogaster).

☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further information: The Site is an important breeding region for birds and an important stopover on the migration route. There are 110 bird species breeding and inhabiting in the site, such as black-necked crane (Grus nigricollis), black stork (Ciconia nigra), and Ruddy Shelduck (Tadorna ferruginea). The site is important for the maintenance of regional biodiversity. See Appendix 1 of 6.1.2 for details of bird residence types.

☑ Criterion 7 : Significant and representative fish

Justification: There are seven fish species distributed in the Nilaba Wetlands (in both Nilaba and Kangmarangduo areas), among which Thick lip naked heavy lip fish (Gymnodiptychus pachycheilus), Skrabalka vysokohorska (Schizopygopsis malacanthus), Marke River plateau loach (Triplophysa markehenensis), Mrenice vychodni (Triplophysa orientalis), and Tibetan stone loach (Triplophysa stoliczkai) are distributed only on the Qinghai-Tibet Plateau and parts of the adjoining areas. They are the fish species with the highest altitude distribution in the world, and are essential species in the ecosystem.

☑ Criterion 8 : Fish spawning grounds, etc.

Justification: The wetland types such as the marshes, lake and rivers in both the two areas of the site provide important food bases, spawning and nursery grounds for different fish species, and play an important role in the conservation and protection of fish diversity in the Qinghai-Tibet Plateau. Plateau loaches such as Tibetan stone loach (Triplophysa stoliczkai), Marke River plateau loach (Triplophysa markehenensis), and Mrenice vychodni (Triplophysa orientalis) inhabit the gravel crevices in the upper streams and tributaries of rivers, feeding on algae and benthic animals, and migrating upstream to flooded ditches or marshes to spawn in shallow water where there are plants, protozoa and rotifers to feed upon. Heavy lips fish (Ptychobarbus chungtiensis), thick lip naked heavy lip fish (Gymnodiptychus pachycheilus), and Skrabalka vysokohorska (Schizopygopsis malacanthus) inhabit the wide valley of the river in the Site where the current is slow to feed on aquatic invertebrates or algae and spawning in the upper reaches of the rivers.

3.2 - Plant species whose presence relates to the international importance of the site

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA / LILIOPSIDA	*Carex muliensis*	☐	☑	☐		☐		Endemic species to the Qinghai-Tibet Plateau and marsh meadow construction species
TRACHEOPHYTA / LILIOPSIDA	*Carex tibetikobresia*	☐	☑	☐		☐		Endemic species to the Qinghai-Tibet Plateau and marsh meadow construction species

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA / AMPHIBIA	*Batrachuperus tibetanus*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	National Protection Class II	Crit 3: Endemic species and rare species;
CHORDATA / MAMMALIA	*Felis bieti*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	National Protection Class I	Crit 3: Rare species; only distributed in the Kangmarangduo area
CHORDATA / MAMMALIA	*Moschus chrysogaster*	☑	☐	☐	☐	☑	☐	☐	☐				EN	☑	☐	National Protection Class I	Crit 3: Rare species; only distributed in the Kangmarangduo area
CHORDATA / AMPHIBIA	*Nanorana pleskei*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Crit 3: Endemic species;
CHORDATA / AMPHIBIA	*Rana kukunoris*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Crit 3: Endemic species;
CHORDATA / AMPHIBIA	*Scutiger boulengeri*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Crit 3: Endemic species;
CHORDATA / MAMMALIA	*Uncia uncia*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☑	National Protection Class I	Crit 3: Rare species; only distributed in the Kangmarangduo area
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	*Gymnodiptychus pachycheilus*	☐	☐	☐	☐	☑	☐	☑	☑					☐	☐	National Protection Class II	Crit 3 and 7: Endemic species; Crit 8: Spawning in this site
CHORDATA / ACTINOPTERYGII	*Ptychobarbus chungtienensis*	☐	☐	☐	☐	☑	☐	☑	☑					☐	☐		Crit 3 and 7: Endemic species; Crit 8: Spawning in this site
CHORDATA / ACTINOPTERYGII	*Schizopygopsis malacanthus*	☐	☐	☐	☐	☑	☐	☑	☑					☐	☐		Crit 3 and 7: Endemic species; Crit 8: Spawning in this site
CHORDATA / ACTINOPTERYGII	*Triplophysa markehenensis*	☐	☐	☐	☐	☑	☐	☑	☑					☐	☐		Crit 3 and 7: Endemic species; Crit 8: Spawning in this site
CHORDATA / ACTINOPTERYGII	*Triplophysa orientalis*	☐	☐	☐	☐	☑	☐	☑	☑				LC	☐	☐		Crit 3 and 7: Endemic species; Crit 8: Spawning in this site
CHORDATA / ACTINOPTERYGII	*Triplophysa stoliczkai*	☐	☐	☐	☐	☑	☐	☑	☑					☐	☐		Crit 3 and 7: Endemic species; Crit 8: Spawning in this site
Birds																	
CHORDATA / AVES	*Aquila nipalensis*	☑	☑	☐	☐	☑	☐	☐	☐				EN	☐	☑	National Protection Class I	Crit 3: Rare species; Crti 4: Living in this site
CHORDATA / AVES	*Ciconia nigra*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	National Protection Class II	Crit 3: Rare species; Crit 4:breeding in the site.
CHORDATA / AVES	*Falco cherrug*	☑	☑	☐	☐	☑	☐	☐	☐				EN	☐	☑	National Protection Class I	Crit 3: Rare species; Important species to maintain biodiversity; Crti 4: Living in this site
CHORDATA / AVES	*Grus nigricollis*	☐	☑	☐	☐	☑	☐	☐	☐				NT	☑	☑	National Protection Class I	Crit 3: Rare species; Crti 4: Breeding in this site

1) Percentage of the total biogeographic population at the site

See Appendix 1 of 6.1.2 for details of bird residence types.

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

The site is an alpine valley formed by the uplift of the Qinghai-Tibet Plateau where water can easily accumulate. The environment is relatively closed, and permanent freshwater marshes, permanent rivers, permanent lakes and other wetland types have been formed under the influence of snow and glacial meltwater catchments in the surrounding mountains, with permanent freshwater marshes as the main wetland type. It preserves a complete, original alpine wetland ecosystem, and the main vegetation types are scrub, alpine meadows and marsh vegetations. The alpine meadow community takes Carex tibetikobresia and Carex muliensis as the constructive species, accompanied by Carex setschwanensis, Carex parvula, Carex thibetica, Carex parva and other plants. Carex tibetikobresia and Carex muliensis Communites are alpine meadows unique to the Qinghai-Tibet Plateau and the most important types of plateau wetland vegetations, which provide habitat and food sources for black-necked crane (Grus nigricollis), black stork (Ciconia nigra) and other migratory birds, as well as mammals such as large-eared field mouse (Apodemus latronum), bharal (Pseudois nayaur), and snow leopard (Uncia uncia). The marsh vegetation communities include Potamogeton polygonifolius, Stuckenia filiformis, Stuckenia pectinata, common mare's-tail (Hippuris vulgaris), and eurasian watermilfoil (Myriophyllum spicatum), etc.
The rich peat resources in the site are characterized by high organic matter, high humic acid content and strong water-holding capacity, which play an important role in the natural ecological balance. It not only has a variety of effects such as regulating the local climate, conserving water, recharging groundwater, purifying the environment and preventing soil erosion, but also has the important function of "carbon sink". The formation of peat plays an important role in reducing atmospheric CO2 concentration, reducing the greenhouse effect and stabilizing the climate.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Flowing water >> M: Permanent rivers/ streams/ creeks		3	1150.96	Unique
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		4	1.82	Unique
Fresh water > Marshes on inorganic soils >> Tp: Permanent freshwater marshes/ pools		2	8887.79	Unique
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands		1	13600	Unique

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Alpine shrubbery	1711.65
Alpine meadow	35221.7

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pomatosace filicula*	National Protection Class II

Optional text box to provide further information

There are four criteria for the selection of species in the List of Wild Plants under Key State Protection: 1, endangered species with very small number and narrow distribution range; 2, endangered and rare species with important economic, scientific and cultural values; 3, wild populations of important crops and related species with genetic value; 4, the species with important economic value, and resources are sharply reduced due to over-exploitation and utilization

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	*Aegypius monachus*				National Protection Class I
CHORDATA/AVES	*Alauda arvensis*				National Protection Class II
CHORDATA/MAMMALIA	*Apodemus latronum*				Main mammals

Phylum	Scientific name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	*Aquila chrysaetos*				National Protection Class I
CHORDATA/AVES	*Athene noctua*				National Protection Class II
CHORDATA/AVES	*Bubo bubo*				National Protection Class II
CHORDATA/AVES	*Buteo hemilasius*				National Protection Class II
CHORDATA/AVES	*Buteo japonicus*				National Protection Class II
CHORDATA/AVES	*Buteo lagopus*				National Protection Class II
CHORDATA/MAMMALIA	*Cervus elaphus*				National Protection Class II
CHORDATA/AVES	*Circus cyaneus*				National Protection Class II
CHORDATA/AVES	*Falco amurensis*				National Protection Class II
CHORDATA/AVES	*Falco peregrinus*				National Protection Class II
CHORDATA/AVES	*Falco tinnunculus*				National Protection Class II
CHORDATA/MAMMALIA	*Felis manul*				National Protection Class II
CHORDATA/AVES	*Gypaetus barbatus*				National Protection Class I
CHORDATA/AVES	*Gyps himalayensis*				National Protection Class II
CHORDATA/AVES	*Haliaeetus albicilla*				National Protection Class I
CHORDATA/AVES	*Ibidorhyncha struthersii*				National Protection Class II
CHORDATA/MAMMALIA	*Lutra lutra*				National Protection Class II
CHORDATA/MAMMALIA	*Lynx lynx*				National Protection Class II
CHORDATA/AVES	*Milvus migrans*				National Protection Class II
CHORDATA/AVES	*Pandion haliaetus*				National Protection Class II
CHORDATA/MAMMALIA	*Procapra picticaudata*				National Protection Class II
CHORDATA/MAMMALIA	*Pseudois nayaur*				National Protection Class II
CHORDATA/AVES	*Tadorna ferruginea*				Dominant species
CHORDATA/AVES	*Tetraogallus tibetanus*				National Protection Class II
CHORDATA/MAMMALIA	*Ursus arctos*				National Protection Class II
CHORDATA/MAMMALIA	*Vulpes ferrilata*				National Protection Class II
CHORDATA/MAMMALIA	*Vulpes vulpes*				National Protection Class II

Optional text box to provide further information

Wild animals have important ecological value. The State Council of the People's Republic of China has approved and issued the list of rare and endangered wild animals under national key protection, and the protection of these wild animals has been raised to the legal level.

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dwc: Subarctic (Severe, dry winter, cool summer)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 4139

a) Maximum elevation above sea level (in metres): 4728

- Entire river basin ☐
- Upper part of river basin ☑
- Middle part of river basin ☐
- Lower part of river basin ☐
- More than one river basin ☐
- Not in river basin ☐
- Coastal ☐

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

The Yangtze River basin

4.4.3 - Soil

- Mineral ☐
- Organic ☑
- No available information ☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes ○ No ◉

Please provide further information on the soil (optional)

The soil types of the site are mainly mountain brown soil, subalpine meadow soil, alpine meadow soil and alpine frigid desert soils.

4.4.4 - Water regime

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from precipitation	☐	No change
Water inputs from surface water	☑	No change
Water inputs from groundwater	☐	No change

Water destination

Presence?	
Feeds groundwater	No change
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels largely stable	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology:

The wetland catchment of Nilaba area is mainly the mainstream of Niqu River (Tibetan "Sun River", a perennial river), a secondary tributary of Yalong River, whose main sources are precipitation and snow melt water. The wetland catchment of the Kangmarangduo area is mainly the mainstream of Duke River (Tibetan "Stone River", a perennial river), a secondary tributary of the Dadu River, and precipitation is its main source of recharge.
The runoff of the two wetland catchment increases gradually in May, enters the flood season in July, peaks in August and September, and decreases greatly into the dry season in October. The streams freeze for 5-6 months, with the rivers starting to freeze in November and thawing in March-April.

4.4.5 - Sediment regime

- [ ] Significant erosion of sediments occurs on the site
- [ ] Significant accretion or deposition of sediments occurs on the site
- [ ] Significant transportation of sediments occurs on or through the site
- [ ] Sediment regime is highly variable, either seasonally or inter-annually
- [x] Sediment regime unknown

4.4.6 - Water pH

- [ ] Acid (pH<5.5)
- [ ] Circumneutral (pH: 5.5-7.4)
- [x] Alkaline (pH>7.4)
- [ ] Unknown

Please provide further information on pH (optional):

The pH of surface water is 7.73-8.24.

4.4.7 - Water salinity

- [x] Fresh (<0.5 g/l)
- [ ] Mixohaline (brackish)/Mixosaline (0.5-30 g/l)
- [ ] Euhaline/Eusaline (30-40 g/l)
- [ ] Hyperhaline/Hypersaline (>40 g/l)
- [ ] Unknown

4.4.8 - Dissolved or suspended nutrients in water

- [ ] Eutrophic
- [ ] Mesotrophic
- [x] Oligotrophic
- [ ] Dystrophic
- [ ] Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ○ ii) significantly different ◉

- [ ] Surrounding area has greater urbanisation or development
- [ ] Surrounding area has higher human population density
- [ ] Surrounding area has more intensive agricultural use
- [x] Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

The wetlands are surrounded by high mountains

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Low
Fresh water	Drinking water for humans and/or livestock	Medium
Fresh water	Water for irrigated agriculture	Low
Wetland non-food products	Livestock fodder	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	High
Erosion protection	Soil, sediment and nutrient retention	High
Pollution control and detoxification	Water purification/waste treatment or dilution	Medium
Climate regulation	Local climate regulation/buffering of change	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Low
Spiritual and inspirational	Contemporary cultural significance, including for arts and creative inspiration, and including existence values	Medium
Spiritual and inspirational	Spiritual and religious values	Medium
Spiritual and inspirational	Aesthetic and sense of place values	Medium
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	High
Scientific and educational	Major scientific study site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	High
Soil formation	Accumulation of organic matter	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High
Nutrient cycling	Carbon storage/sequestration	High

Within the site: 1660

Outside the site: 2730

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ○ Unknown ◉

4.5.2 - Social and cultural values

i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland ☐

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples ☐

iv) 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 ☑

Description if applicable

The Nilaba Lake in the site is regarded as a holy lake locally, and each year there is a festival in April and August. During this time, people hike to the lake to worship, continuing the ancient customs and preserving many religious colors. The local natural ecological environment and wildlife have also received intact protection, in terms of the cultural heritage, people's reverence for nature, the rational use of wetlands.
The local herdsmen also believe in Buddhism, prohibiting sabotage to the natural ecological environment, maintaining the integrity of the wetland's original appearance, providing good conditions for wildlife to forage and inhabit.

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	☑	☑

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Cooperative/collective (e.g., farmers cooperative)	☑	☑

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Seda County Nature Reserve Conservation Center

Provide the name and/or title of the person or people with responsibility for the wetland: Xianlin Liu Director

Postal address: Seke town 626699, Seda county, Ganzi Tibetan autonomous prefecture, Sichuan province, P.R. China

E-mail address: 506467011@qq.com

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	Low impact		☑	☐

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Gathering terrestrial plants	Low impact		☑	☐

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Low impact		☑	☐

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Dams and water management/use	Low impact		☑	☐

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Temperature extremes	Low impact		☑	☑

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
County-level nature reserve	Sichuan Seda Nilaba Wetlands Nature Reserve		partly

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☑

II National Park: protected area managed mainly for ecosystem protection and recreation ☐

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☐

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Implemented
Habitat manipulation/enhancement	Proposed
Hydrology management/restoration	Proposed
Re-vegetation	Partially implemented
Soil management	Partially implemented
Land conversion controls	Proposed
Faunal corridors/passage	Proposed

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented
Reintroductions	Proposed
Control of invasive alien plants	Implemented
Control of invasive alien animals	Implemented

Human Activities

Measures	Status
Management of water abstraction/takes	Partially implemented
Regulation/management of wastes	Proposed
Livestock management/exclusion (excluding fisheries)	Implemented
Fisheries management/regulation	Implemented
Harvest controls/poaching enforcement	Partially implemented
Regulation/management of recreational activities	Proposed
Communication, education, and participation and awareness activities	Implemented
Research	Implemented

Other:

In November 2000, the people's government of Seda county approved the establishment of the county-level nature reserve of Sichuan Seda Nilaba Wetlands with the area of 60907.84 ha.
Since its establishment, the reserve has developed regulation and management methods for forest protection, fire prevention, publicity and education, wildlife protection, etc.; improved the field patrol system, and carried out a variety of monitoring activities for anthropogenic activities, economic construction interference threats to the reserve, etc.; established two management stations. Such measures have improved the management of the reserve and played a positive role in the wetland ecosystem.
In terms of public education, some publicity signs and protection slogans have been set up; TV, radio and other media have been used to promote forest protection, fire prevention, wildlife protection and other aspects to the community, which has achieved certain results.

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes ○ No ◉

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes ○ No ◉

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but a plan is being prepared

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Implemented
Soil quality	Proposed
Plant community	Implemented
Plant species	Implemented
Animal community	Implemented
Animal species (please specify)	Implemented
Birds	Implemented

In recent years, the reserve has cooperated to participate in the forest management inventory, pest investigation and the third national land resource survey. In 2021, surveys of vascular plants, animals, birds and fishes in the reserve were carried out with Sichuan Forestry Sciences Academy and Mianyang Normal College. Through training, some of the primary conservationists have mastered the basic species monitoring methods and improved the reserve's capacity in scientific research and monitoring.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Seda statistical yearbook (2020)
Wetland resources survey report of Ganzi prefecture, 2012
Sichuan Forestry Technical Development Corp. of Industry and Commerce. 2021. Master Plan of Nilaba Wetland Nature Reserve (2021-2030).
Sichuan Academy of Forestry Sciences, Mianyang Normal University. 2021. Report on the scientific study of the Nilaba Wetland Nature Reserve (internal data).
Udvardy M. 1975. Classification of the Biogeographical Provinces of the World. IUCN Occasional Paper No. 18.
Catalog of Wildlife under Key State Protection. 2021. http://www.gov.cn/xinwen/2021-02/09/content_5586227.htm.
List of Wild Plants under Key State Protection. 2021. http://www.gov.cn/zhengce/zhengceku/2021-09/09/content_5636409.htm.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<2 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)
<1 file(s) uploaded>

iii. a description of the site in a national or regional wetland inventory
<no file available>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Grus nigricollis (*Yang Liu, 04-08-2020*)


Grus nigricollis (*Jiangchu, 15-09-2022*)


Ciconia nigra (*Gacuo, 07-04-2021*)


The Nilaba wetlands (*Jun Zhang, 05-07-2022*)


The Nilaba wetlands (*Jun Zhang, 14-07-2022*)


The Nilaba wetlands (*Jun Zhang, 14-07-2022*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2022-10-28