



Ramsar Information Sheet

Published on 11 November 2020

India Sur Sarovar



Designation date	21 August 2020
Site number	2440
Coordinates	27°15'06"N 77°50'24"E
Area	431,00 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

Sur Sarovar, popularly known as Keetham Lake, is a human made reservoir located along the River Yamuna, on National highway 2, 20 km from Agra City in the state of Uttar Pradesh. Constructed by the British to meet water requirements of the city of Agra during summer months, the major source of water for the wetland is Agra Canal, which supplies water from the Yamuna River. Spanning across an approximate area of 700 ha, this pentagonal shaped reservoir is situated within Yamuna floodplain region, comprising of a mosaic of habitats that support a rich diversity of flora and fauna. Sur Sarovar Sanctuary supports more than 30,000 waterbirds and a large heronry of grey herons (*Ardea cinerea*), egrets (*Egretta* spp.) and cormorants (*Phalacrocorax* spp.). The wetland also acts as wintering site to a number of migratory avifauna of Central Asian Flyway, notably, northern pintail, Eurasian wigeon, northern shoveler and gadwall, apart from supporting threatened species like sarus crane, lesser adjutant and greater spotted eagle. The site comes under the category A1 (site supporting threatened species) and A4iii (Site known or thought to hold, on a regular basis, $\geq 20,000$ water birds or $\geq 10,000$ pairs of seabirds of one or more species), of the Important Bird Area (IBA) Criteria. The wetland is also known to support 299 species of plants, including 24 aquatic plants. Also, mammals like blue bull, jackal, hog deer and hyena, along with 7 species of turtles, 15 species of snakes, uncommon yellow monitor lizard and agra monitor lizard are all reported in this sanctuary. The site is culturally significant, with a temple complex dedicated to Surdas, who was a 16th century blind devotional poet and singer of the Bhakti movement, present within the complex. Also, the wetland is also source of water for Mathura oil refinery.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency

Postal address

National Ramsar Administrative Authority

Institution/agency

Postal address

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

From year

To year

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Unofficial name (optional)

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps

Boundaries description

The wetland boundaries represent the post monsoon inundation area. The wetland forms the aquatic part of Our Sarovar Bird Sanctuary, surrounded by cultivated fields on the North West and South-West sides. On the southern side lies N.H.-2 along with a small patch of cultivated land and a Prosopis plantation belonging to the Social Forestry Department which is contiguous with the sanctuary. Villages of Seengna, Runakta and Bhupla border the sanctuary in north, east and west respectively.

2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

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):

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

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Indo Gangetic Plain

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

<no data available>

Criterion 2 : Rare species and threatened ecological communities

Criterion 3 : Biological diversity

Justification

The wetland supports a number of species including more than 300 species of resident and migratory birds, 252 species of flora inclusive of 24 aquatic plants, 7 species of turtles, 15 species of snakes and more than 60 species of fish. Besides, the site also supports a number of mammalian species, notably, Boselaphus tragocamelus, Canis aureus, Varanus bengalensis, Felis chaus and Hystrix indica.

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

Criterion 5 : >20,000 waterbirds

Overall waterbird numbers:

Start year:

Source of data:

Criterion 6 : >1% waterbird population

Criterion 7 : Significant and representative fish

Justification

More than 60 species of fish have been recorded from the wetland, of which, three species of Chitala chitala, Hypophthalmichthys molitrix and Ailia coila are categorized as near threatened while two species of Wallago attu and Cyprinus carpio as vulnerable under IUCN Red List.

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

<no data available>

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

Phylum	Scientific name	Common 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/ MAMMALIA	<i>Axis porcinus</i>	hog deer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input type="checkbox"/>		Native to South and south east Asia, wetland provides habitat to the species	
CHORDATA/ MAMMALIA	<i>Manis crassicaudata</i>	Indian Pangolin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat to this endangered species native to Indian subcontinent.	

Phylum	Scientific name	Common 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								
CHORDATA/ REPTILIA	<i>Nilssonina gangetica</i>	Ganges Soft-shelled Turtle	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Native to south Asia, wetland provides habitat to the species
Fish, Mollusc and Crustacea																		
CHORDATA/ ACTINOPTERYGII	<i>Ailia coila</i>	Gangetic ailia; Gangetic alia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat to the species which is native to Indian subcontinent.
CHORDATA/ ACTINOPTERYGII	<i>Cirrhinus mrigala</i>	Mrigal carp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Carp species endemic to Indo-Gangetic riverine system, it contributes to biodiversity of the site.
CHORDATA/ ACTINOPTERYGII	<i>Clarias batrachus</i>	Albino walking fish; Clarias catfish; Climbing perch; Freshwater catfish; Magur; Philippine catfish; Thai hito; Thailand catfish; Toyman's spotted catfish; Walking catfish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Species inhabit inland waters, contributes to biodiversity of the site.
CHORDATA/ ACTINOPTERYGII	<i>Cyprinus carpio</i>	Common carp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Wetland supports this vulnerable species.
CHORDATA/ ACTINOPTERYGII	<i>Gibelion catla</i>	Catla; Catla catla; Major carp; Pla kra ho; Theila	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Species is endemic to riverine system of south Asia and is also used in polyculture. It contributes to biodiversity of the site.
CHORDATA/ ACTINOPTERYGII	<i>Hypophthalmichthys molitrix</i>	Carp; Chinese carp; Chinese schemer; Silver carp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide habitat to the species.
CHORDATA/ ACTINOPTERYGII	<i>Labeo rohita</i>	Roho labeo; Rohu; Ruae	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Indo-Gangetic riverine species that is also used in carp polyculture systems. It contributes to biodiversity of the site.
CHORDATA/ ACTINOPTERYGII	<i>Wallago attu</i>	Boal; Freshwater shark; Giant sheatfish; Shark catfish; Wallago; Whiskered Catfish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Endangered species, native to South and South east Asia, contributes to biodiversity of the site.
Birds																		
CHORDATA/ AVES	<i>Anas acuta</i>	Northern Pintail	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide wintering site to the species.
CHORDATA/ AVES	<i>Anas clypeata</i>	Northern Shoveler	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species.
CHORDATA/ AVES	<i>Anas penelope</i>	Eurasian Wigeon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species.
CHORDATA/ AVES	<i>Anas poecilorhyncha</i>	Indian Spot-billed Duck; Spot-billed Duck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide habitat to the species.
CHORDATA/ AVES	<i>Anas strepera</i>	Gadwall	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species.
CHORDATA/ AVES	<i>Anastomus oscitans</i>	Asian Openbill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide habitat to the species.
CHORDATA/ AVES	<i>Anser anser</i>	Greylag Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	990	2015-19	3.9	LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is wintering site for the species.
CHORDATA/ AVES	<i>Anser indicus</i>	Bar-headed Goose	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide wintering site for the species.
CHORDATA/ AVES	<i>Aquila clanga</i>	Greater Spotted Eagle	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides wintering site for the species.

Phylum	Scientific name	Common 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								
CHORDATA/AVES	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat for the species.
CHORDATA/AVES	<i>Fulica atra</i>	Eurasian Coot	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides wintering site to the species.
CHORDATA/AVES	<i>Grus antigone</i>	Sarus Crane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat to the species.
CHORDATA/AVES	<i>Leptoptilos javanicus</i>	Lesser Adjutant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat for the species.
CHORDATA/AVES	<i>Limosa limosa</i>	Black-tailed Godwit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide wintering site for the species.
CHORDATA/AVES	<i>Mycteria leucocephala</i>	Painted Stork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat for the species.
CHORDATA/AVES	<i>Netta rufina</i>	Red-crested Pochard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provide wintering site to the species.
CHORDATA/AVES	<i>Platalea leucorodia</i>	Eurasian Spoonbill	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides wintering site for the species.
CHORDATA/AVES	<i>Sarkidiornis melanotos</i>	Comb Duck; Knob-billed Duck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat to the species.
CHORDATA/AVES	<i>Threskiornis melanocephalus</i>	Black-headed Ibis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat to the species.

1) Percentage of the total biogeographic population at the site

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

Sur Sarovar wetland is located within semi- arid region characterized by dry climate and ridge and ravine topography. Flanked by the River Yamuna on its northern periphery, wetland produces a mosaic of ecological niches that support a number of flora and fauna. This human made wetland is surrounded by dense and luxuriant vegetation of semi evergreen and deciduous forests with *Prosopis juliflora* being the dominant species. Water from Yamuna River brought through a branch of the Agra Canal is the main source of water. The depth of the lake increases from the North-west to South-east direction. The River Yamuna flowing along the northern boundary functions as a complementary perennial wetland, which along with agricultural fields, provides a habitat to variety of waterbirds. During summers, when water becomes the limiting factor, the Sur Sarovar wetland becomes the favoured habitat of a number of aquatic avifauna such as comb duck (*Sarkidiornis melanotos*), spotbilled duck (*A. poecilorhyncha*), lesser whistling teal (*Dendrocygna javanica*), painted stork (*Mycteria leucocephala*), and sarus crane (*grus antigone*) etc. Besides this, the lake has been an important staging and dispersal ground for migratory birds of the Central Asian Flyway during winter. Also, around 20 species of aquatic plants are supported by the wetland.

Though initially planned for supplying water to the city of Agra, subsequently it was embanked to work as a reservoir. Water is also provided to Mathura refinery.

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

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
6: Water storage areas/Reservoirs		1	430

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
The site has artificially created islands that provide habitat to birds	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Azadirachta indica</i>	Indian liliac	Species is native to Indian Subcontinent and is known for medicinal properties
<i>Celosia argentea</i>	Plumed cockscomb	Species is native to India and is considered culturally significant
<i>Ficus benghalensis</i>	Indian banyan	Native to Indian sub-continent, species is National tree of India
<i>Ficus religiosa</i>	Sacred fig	Native to Indian Subcontinent, species is considered sacred.
<i>Hydrilla verticillata</i>	Water thyme	Species is native to India
<i>Phoenix sylvestris</i>	sugar date palm	Species is native to Indian subcontinent
<i>Polyalthia longifolia</i>	Indian Mast Tree	Species is native to drier regions of India and is used in indigenous medicine.
<i>Terminalia arjuna</i>	Arjun	Species is native to India and is culturally and spiritually significant.

Invasive alien plant species

Scientific name	Common name	Impacts	
<i>Eichhornia crassipes</i>	Water hyacinth	Actual (major impacts)	No change
<i>Lantana camara</i>	Lantana	Actual (major impacts)	No change
<i>Parthenium hysterophorus</i>	ragweed parthenium	Actual (major impacts)	No change
<i>Prosopis juliflora</i>	Mesquite	Actual (major impacts)	No change

Optional text box to provide further information

The sanctuary supports more than 250 species of flora, belonging to 77 families. Endemism has not been reported.

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	<i>Axis axis</i>	chital				Native to Indian Sub-continent
CHORDATA/MAMMALIA	<i>Boselaphus tragocamelus</i>	nilgai;blue bull				Largest Asian antelope, endemic to the Indian subcontinent.
CHORDATA/MAMMALIA	<i>Canis aureus</i>	Golden Jackal;Eurasian Golden Jackal				Species is listed in Schedule III of the Wildlife Protection Act (1972)
CHORDATA/MAMMALIA	<i>Felis chaus</i>	Jungle Cat				Species is native to the Middle East, South and Southeast Asia and southern China. It inhabits wetlands
CHORDATA/MAMMALIA	<i>Funambulus pennantii</i>	Indian Palm Squirrel				Species is naturally found in India and Sri-lanka
CHORDATA/MAMMALIA	<i>Herpestes edwardsi</i>	Indian Gray Mongoose				Species is native to Indian Subcontinent and West Asia
CHORDATA/MAMMALIA	<i>Hystrix indica</i>	Indian Crested Porcupine				species is native to southern Asia and the Middle East and is protected under the India under Schedule IV of the Indian Wildlife Protection Act of 1972
CHORDATA/MAMMALIA	<i>Lepus nigricollis</i>	Indian Hare				Species native to Indian Subcontinent and Java
CHORDATA/MAMMALIA	<i>Mellivora capensis</i>	Honey Badger				In India the honey badger is listed in Schedule I, Part I of the Indian Wildlife (Protection) Act, 1972
CHORDATA/MAMMALIA	<i>Mus booduga</i>	Little Indian Field Mouse				Species is native to Indian Subcontinent
CHORDATA/MAMMALIA	<i>Vulpes vulpes</i>	Lomari				Species protected under schedule 1 of Indian Wildlife Protection Act

Invasive alien animal species

Phylum	Scientific name	Common name	Impacts	
CHORDATA/ACTINOPTERYGII	<i>Clarias gariepinus</i>	African catfish;Barbel;Catfish;Common catfish;Mudfish;North African catfish;Sharptooth catfish;Sharptoothed catfish	Potential	No change
CHORDATA/ACTINOPTERYGII	<i>Oreochromis karongae</i>	Tilapia	Potential	No change

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
C: Moist Mid-Latitude climate with mild winters	Cwa: Humid subtropical (Mid with dry winter, hot summer)

The sanctuary lies in the semi-arid region with peak summer temperature of 48°C and a winter minimum of 4°C. Rainfall occurs mainly in the monsoon season (July- mid September), with scanty showers during winters. Gross annual rainfall is around 725mm.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- 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.

Yamuna river basin

4.4.3 - Soil

Mneral

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 Sur Sarovar Bird Sanctuary is located on the banks of the river Yamuna. The terrestrial part of the sanctuary is ravinous. The top soil along the river Yamuna is sandy-loam. The sub-soil is also the same. In rest of the sanctuary the soil is predominantly alkaline with presence of kanker pan at variable depths. The soil moisture condition favours the tropical thorn forest. The area is not rocky.

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 surface water	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels fluctuating (including tidal)	No change

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

Sur sarovar wetland is the nerve centre around which the life revolves. The Irrigation Department of the Government of U.P. supplies water to the Mathura refinery.

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

Sediment regime unknown

(EOD) Water turbidity and colour	Water is not clear and turbidity ranged from 72-142 cm. Minimum turbidity is noted in summer.
(EOD) Light - reaching wetland	Maximum average 28.8 recorded in March 2013, while minimum 20.0 in Sept. 2013. Maximum was recorded in spring
(EOD) Water temperature	Water temperature ranges between 19.5 - 38 degree celsius. Variation is majorly due to solar radiation and conduction.

4.4.6 - Water pH

Acid (pH<5.5)

Circumneutral (pH: 5.5-7.4)

Alkaline (pH>7.4)

Unknown

Please provide further information on pH (optional):

Lowest pH was measured in rainy season, Moderate value of pH in spring and reached max. in summer

4.4.7 - Water salinity

Fresh (<0.5 g/l)

Mxohaline (brackish)/Mxosaline (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
- 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 i) broadly similar ii) significantly different site itself.

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

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

The sanctuary is flanked by villages on three sides

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)	Medium
Fresh water	Water for industry	High
Fresh water	Water for irrigated agriculture	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	High
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Spiritual and religious values	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High

Other ecosystem service(s) not included above:

-

Outside the site:

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 site is associated with famous 16th Century blind devotional poet, Surdas, who was also a part of Bhakti Movement. A temple, dedicated to the poet is present at the site.

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
Provincial/region/state government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Provide further information on the land tenure / ownership regime (optional):

The main ownership of the lake lies with the Irrigation department, Uttar Pradesh.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

1- Range Forest Officer, Patna Bird Sanctuary, Jalesar, Etah
 2- Wildlife Warden, National Chambal Sanctuary Project, U.P., Agra
 3- Deputy Conservator of Forests, National Chambal Sanctuary Project, U.P., Agra

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

1- Satyapal Singh 2- Anil Kumar Singh 3- Anand Kumar

Postal address:

Deputy Conservator of Forests, National Chambal Sanctuary Project, U.P., Agra-282005

E-mail address:

dfochambal@gmail.com

5.2 - Ecological character threats and responses (Management)

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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Tourism and recreation areas	High impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water releases	Medium impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	Medium impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Annual and perennial non-timber crops	Medium impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Logging and wood harvesting	Medium impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fishing and harvesting aquatic resources	Low impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	High impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unspecified/others	Medium impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	High impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	High impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Bird Sanctuary	Sur Sarovar Bird Sanctuary	http://www.soorsarovarbirdsanctuary.in/	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Sur Sarovar Bird Sanctuary		whole

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
Land conversion controls	Implemented
Habitat manipulation/enhancement	Implemented

Species

Measures	Status
Control of invasive alien plants	Implemented

Human Activities

Measures	Status
Fisheries management/regulation	Implemented
Communication, education, and participation and awareness activities	Implemented
Harvest controls/poaching enforcement	Implemented
Livestock management/exclusion (excluding fisheries)	Implemented
Regulation/management of wastes	Implemented
Regulation/management of recreational activities	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

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

URL of site-related webpage (if relevant):

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

Further information

The restoration plan is the same as the management plan.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Proposed
Birds	Implemented

- Monitoring of weed eradication will be done.
- Monitoring of fire control measure suggested in theme plan on fire.
- Monitoring of avian flu.
- Monitoring of pilgrimage to the temple complex.
- Monitoring of tourism related activities, the impacts and the extent of benefit.
- Daily monitoring of migratory birds during winter.
- Mid-winter waterfowl census in association with department of wildlife, AMU.
- Quarterly monitoring of lake water quality.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Gopal, K., Verma, H O, Tripathi, S. (2015). Water Quality Monitoring of Sur Sarovar (Keetham) Lake, Agra (Uttar Pradesh). Journal of Ecophysiology and Occupational Health, 15 (3 & 4), 2015, 95–103.

Vishwakant (2016). Limnological Assessment of Keetham Lake at Soor-Sarovar Bird Sanctuary in Agra. Annals of Natural Sciences, Vol. 2[4]: December, 2016: 22-27.

Wagh, V.V (2016). Diversity of Invasive Alien Plants in Soor Sarovar Bird Sanctuary (SSBS), Keetham, Agra, India. International Journal of Current Research in Biosciences and Plant Biology. 2016, 3(3): 62-69.

Gopal, K., Verma, H O, Tripathi, S. (2018): Assessment of Piscine Diversity and Physicochemical Properties of Soor Sarovar (Keetham Lake). International Journal of Chemical sciences, 2018, Vol. 6, 2545-2550.

Shukla, U.N, Lone, A. (2010): Water Birds of Sur Sarovar Bird sanctuary, Agra. Research Journal of Agricultural Sciences, 2010, 1(2): 135-139.

Rahmani, A., Islam, Z. & Kasambe, R. (2016). Important Bird and Biodiversity Areas in India Priority sites for conservation. PY: 2016/11/12, SN :978-93-84678-02-9.

BirdLife International (2020) Important Bird Areas factsheet: Sur Sarovar Bird Sanctuary.

Wetlands International (2020) "Waterbird Population Estimates".

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

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

<1 file(s) uploaded>

vi. other published literature

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Panoramic view of Sur sarovar wetland (Range Forest Officer, 05-03-2019)



Colony of Spot-billed pelicans at Sur Sarovar Wildlife Sanctuary (Uttar Pradesh State Wetland Authority, 15-12-2019)



Congregation of Pelicans at Sur Sarovar Wildlife Sanctuary (Uttar Pradesh State Wetlands Authority, 15-12-2019)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation