



Ramsar Information Sheet

Published on 25 July 2022

India

Karikili Bird Sanctuary



Designation date	8 April 2022
Site number	2480
Coordinates	12°35'56"N 79°50'32"E
Area	58,44 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 Karikili Bird Sanctuary is constituted by two rain-fed non-perennial irrigation tanks spreading over an area of 58.442 ha. It was declared a sanctuary in 1972. It exhibits a flat topography with undulating and gentle slopes in parts and is situated 100 m above MSL. North east and South west monsoons contribute 54% and 36% of the total annual rainfall. SW monsoon is highly erratic and summer rains are negligible. Rainfall fluctuates greatly from year to year varying from 400 mm to almost 1700 mm, flooding the area in the months of monsoon (July - September). The vegetation in Karikili tanks is mainly composed of *Barringtonia acutangula* and *Acacia nilotica* trees, raised as plantations by the Forest Dept. Surrounding vegetation is composed of scrub and thorn. There are also grass species like *Typha*, "Korai", Naanal grass and *Cynodon dactylon*, etc on higher islets. The habitat abutting the sanctuary is a complex of grass-scrub-palmyra. This *Borassus flabellifer* (Panai in Tamil) forms a significant part of the landscape supporting dependent biodiversity including avifauna, playing an important role in the livelihood of the people. The main fauna includes a variety of resident and migratory avifauna. This includes mainly waterfowl, water birds, and a few species of scavengers. Near threatened Oriental Darter and Spot-billed Pelican breeds here. The Karikili Bird Sanctuary has a history of people's cooperation in protecting water birds which in turn provides guano effect of the supply of nutrient-enriched water to Karikili crop fields.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Tamil Nadu State Wetland Authority
Postal address	O/o Additional Principal Chief Conservator of Forests & Member Secretary No.1, Jeenis Road, Panagal Maaligai, VIII Floor, Saidapet, Chennai 600 015 Tamil Nadu, INDIA

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment, Forest & Climate Change
Postal address	Office of the Secretary Ministry of Environment, Forest & Climate Change Indira Paryavaran Bhavan, Jorbagh Road New Delhi - 110 003 INDIA

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

From year	<input type="text" value="2008"/>
To year	<input type="text" value="2021"/>

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	<input type="text" value="Karikili Bird Sanctuary"/>
---	--

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Former maps	<input type="text" value="0"/>
-------------	--------------------------------

Boundaries description

The Karikili Bird Sanctuary is surrounded by a bund on south-north-west direction while by agricultural fields cultivated with paddy, gingelly, groundnut etc., on the north and west direction. The Boundary runs as follows:- In the North, starting from the western corner of SF.No.41 the boundary runs towards the east along the southern side of SF No. 41, 40, and 20 till it meets the north-eastern corner of SF No.19. In the East, the boundary runs towards the south and east along the western and eastern boundary of SF No.19. Then it runs towards south along the western boundary of SF No. 16, 15 12, and 14 till it meets the southern boundary of SF No.14.. In the South, it runs North-west along the Southern boundary of S.F.Nos.138, 152, 153, and 178 western boundaries of S.F. Nos. 184 and 218. In the West, it runs towards the North along the Western boundary of S.F.Nos.219 and 215 until it meets the starting.

2.2.2 - General location

a) In which large administrative region does the site lie?	<input type="text" value="Partly Maduranthagam Taluk, Chengalpattu District & partly Kancheepuram District"/>
--	---

b) What is the nearest town or population centre?	<input type="text" value="Maduranthagam is the nearest town and Chennai is the nearest City"/>
---	--

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):	<input type="text" value="58.442"/>
----------------------------------	-------------------------------------

Area, in hectares (ha) as calculated from GIS boundaries 58.442

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
WWF Terrestrial Ecoregions	Falls broadly under Tropical &Sub-tropical Dry Broad Leaf Forest of S.Asia-Southern India; specifically falling under, East Deccan Dry Evergreen Forests [IM0204] regionalisation scheme, representing SE coast with distinct habitats of dry evergreen forest
Freshwater Ecoregions of the World (FEOW)	Southeastern Ghats

Other biogeographic regionalisation scheme

As per the biogeographic classification of India, Karikili Bird Sanctuary falls under the Deccan Peninsula. The Sanctuary exhibits a more or less flat topography undulating and gently sloping in parts and situated 100m above MSL near low ridged, rocky hillocks. The hillocks are small and denuded with thick, thorn scrub as in survey number 189 & 191 adjacent to Karikili Tank. Some rocky out crops of metamorphic origin are found nearby. Soil is mostly clayey.

Like most other ecoregions in the Indian Subcontinent, Karikili Bird Sanctuary is also subjected to heavy deforestation and grazing by domestic livestock. The stunted scrub vegetation present throughout most of the ecoregion is indicative of long years of grazing practices.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

<no data available>

<no data available>

Criterion 3 : Biological diversity

Justification

Karikili sustains a spectacular congregation of waterbirds and waders within the biodiversity hotspot. The wetland supports significant populations of species like *Accipiter badius*, *Alcedo coerulescens*, *Amaurornis phoenicurus*, *Anas acuta*, *Anas clypeata*, *Anas poecilorhyncha zonorhyncha*, *Anas querquedula*, *Anhinga melanogaster*, *Ardeola grayii*, *Bubulcus coromandus*, *Charadrius dubius*, *Chlidonias hybrida*, *Egretta garzetta*, *Microcarbo niger*, *Mycteria leucocephala*, *Phoenicopterus roseus*, and *Tachybaptus ruficollis*, which is representative and significantly helps in maintaining the biodiversity of the region owing to large variety of ecological functions performed by the above-mentioned diverse range of species.

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

Optional text box to provide further information

The proposed Ramsar site has a diverse habitat with a number of inlets and surrounding agricultural fields which provides good nesting and foraging habitats for bird species like Spot-billed Pelican (*Pelecanus philippensis*) and Black Bittern (*Dupetor flavicollis*). This diversity of habitats enables the wetland to act as an important breeding site for the two species. Thus, the site provides crucial support to the species listed above during critical life cycle stages.

Criterion 6 : >1% waterbird population

Optional text box to provide further information

The wetland supports a 1% threshold population of the short-billed pelican. Based on the available census data from 2020 to 2022 on an average, the site supported 415 individuals of Spot-billed Pelican (*Pelecanus philippensis*) representing 6.42% of the biogeographic population (Eastern Ghats).

Criterion 7 : Significant and representative fish

Justification

Fish species like *Channa striata*, *Aplocheilichthys lineatus*, *Catla catla*, *Channa punctata*, *Labeo rohita*, *Etilapia suratensis*, *Cirrhinus mrigala*, *Macrognathus pancalus*, *Hyporhamphus limbatus*, and *Oreochromis niloticus* are known to use this site for feeding, breeding and migration purposes from adjoining waterbodies through canals. Some of these species are exclusively restricted to the catchment of this wetland and adjoining waterbodies. These species also show migration cues i.e., some are identified as local migrants while others as long-distance migrants.

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	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									
Fish, Mollusc and Crustacea																		
CHORDATA/ ACTINOPTERYGII	<i>Aplocheilichthys lineatus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Channa punctata</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Channa striata</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Cirrhinus mrigala</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Etroplus suratensis</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Gibelion catla</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Hyporhamphus limbatus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Labeo rohita</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Macrornathus pancalus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
CHORDATA/ ACTINOPTERYGII	<i>Oreochromis niloticus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species uses the wetland for feeding, breeding and migration purposes.
Birds																		
CHORDATA/ AVES	<i>Dupetor flavicollis</i>	<input type="checkbox"/>	<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"/>					<input type="checkbox"/>	<input type="checkbox"/>		The proposed Ramsar site has a diverse habitat with a number of inlets and surrounding agricultural fields which provides good nesting and foraging habitats.
CHORDATA/ AVES	<i>Pelecanus philippensis</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	415	2020-22	6.42	NT	<input type="checkbox"/>	<input type="checkbox"/>		the site supported 415 individuals of Spot-billed Pelican representing 6.42% of the biogeographic population (Eastern Ghats).

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

The Karikili Bird Sanctuary is adjacent to a small village called Karikili situated 8 km north of Vedanthangal and lies partly in Maduranthangam Taluk, Chengalpattu District, and partly in Kancheepuram District of Tamil Nadu. It is constituted of two rain-fed non-perennial irrigation tanks spread over an area of 58.442 ha. The Karikili Bird Sanctuary exhibits a more or less flat topography undulating and gently sloping in parts and situated 100m above MSL near low ridged, rocky hillocks. The hillocks are small and denuded with thick, thorn scrub as in survey number 189 & 191 adjacent to Karikili tank. Some rocky outcrops of metamorphic origin are found nearby. Soil is mostly clayey. Karikili hillock lies outside the tank towards the south. The terrain of the sanctuary is flat with a bund running in south-north-west direction for a distance of 1742 m. The bund is 3 m high and 2 m wide and it levels out towards the south-west. It regulates water outflow through sluices to the field. Agricultural fields surround the sanctuary along the eastern and western sides and a considerable portion of the fields get inundated with water.

The vegetation in Karikili tanks is mainly composed of *Barringtonia acutangula* and *Acacia nilotica* trees mostly raised as plantations by the Forest Department. Surrounding vegetation is composed of scrub and thorn. There are also grass species like *Typha* on higher islets, "Korai" grass and Naanal grass, *Cynodon dactylon* etc. The habitat abutting the sanctuary is a complex of grass-scrub-palmyra. This *Borassus flabellifer* (Panai in Tamil) forms a significant part of the landscape supporting dependent biodiversity including avifauna, playing an important role in the livelihood of the people. The main fauna of the water bodies is different species of birds both residential and migratory. Karikili is an important staging and breeding ground for several birds species like garganey teals, common teals, shovellers, pintail ducks, stilts, sandpipers, cormorants, egrets, grey heron, open-billed stork, darter, spoonbill, white ibis, night herons, little grebes, grey pelican, etc. Apart from birds the wetland also supports species of mammals, reptiles, and amphibians such as the jungle cat, grey mongoose, palm civet, flying fox, bonnet macaque, water snakes, fox, jackal, cobra, python, sand boa, lizards, and frogs. There is no large wild mammal of conservation concern in this sanctuary as it is surrounded by human habitations and agricultural fields.

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	58.442

(ECD) Habitat connectivity

Site receives water from Madhuranthangam Tank; bunds around sanctuary regulates water through sluices to surrounding agricultural fields on eastern & western side; considerable portion of fields-inundated with water; indirect connectivity to Palar river

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Acacia auriculiformis</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Aegle marmelos</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Alangium salviifolium</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Albizia lebbbeck</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Azadirachta indica</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Bambusa bambos</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Barringtonia acutangula</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Bauhinia purpurea</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Borassus flabellifer</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Butea monosperma</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Cassia fistula</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ceiba pentandra</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Citrus japonica</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Delonix regia</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ficus benghalensis</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ficus racemosa</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ficus religiosa</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Senna polyantha</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Senna siamea</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Vachellia leucophloea</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Vachellia nilotica</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Vachellia planifrons</i>	

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ipomoea carnea fistulosa</i>	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Prosopis juliflora</i>	Actual (major impacts)

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	<i>Accipiter badius</i>	2	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Alcedo coerulescens</i>	1	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Amaurornis phoenicurus</i>	6	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Anas acuta</i>	1298	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Anas clypeata</i>	106	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Anas poecilorhyncha zonorhyncha</i>	3	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Anas querquedula</i>	116	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Anhinga melanogaster</i>	31	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Ardeola grayii</i>	146	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Bubulcus coromandus</i>	3188	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Charadrius dubius</i>	65	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Chlidonias hybrida</i>	19	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Cinnyris asiaticus</i>	12	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Circus aeruginosus</i>	1	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Egretta garzetta</i>	130	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Gymnoris xanthocollis</i>	3	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Halcyon smyrnensis</i>	30	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Heteroglaux blewitti</i>	2	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Microcarbo niger</i>	105	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Mycteria leucocephala</i>	35	2020-22		IUCN (NT)
CHORDATA/AVES	<i>Nycticorax nycticorax</i>	734	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Phalacrocorax fuscicollis</i>				IUCN (LC)
CHORDATA/AVES	<i>Phoenicopterus roseus</i>				IUCN (LC)
CHORDATA/AVES	<i>Psittacula krameri</i>	33	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Pycnonotus cafer</i>	22	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Pycnonotus luteolus</i>	16	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Spilopelia chinensis</i>	16	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Tachybaptus ruficollis</i>	45	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Threskiornis melanocephalus</i>	24	2020-22		IUCN (NT)
CHORDATA/AVES	<i>Tringa glareola</i>	6	2020-22		IUCN (LC)
CHORDATA/AVES	<i>Vanellus indicus</i>	43	2020-22		IUCN (LC)

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Am: Tropical monsoonal (Short dry season; heavy monsoonal rains in other months)

The area generally experiences hot and humid climatic conditions. Being more near the Tropic of Cancer, the climate is typically tropical as in most parts of Tamil Nadu. Temperatures remain high all through the year with only a slight increase in December-January. Northeast and Southwest monsoon contribute 54% and 36%, respectively to the total annual rainfall. The southwest monsoon rainfall is highly erratic and summer rains are negligible. The rainfall fluctuates greatly from year to year varying from about 400 mm to almost 1700 mm.

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.

Palar river

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

4.4.4 - Water regime

Water permanence

Presence?	
Usually seasonal, ephemeral or intermittent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from precipitation	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	
Feeds groundwater	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:

hengalpet district is part of the Palar River Basin, of which the Maduranthakam taluk is considered part of the Palar – Cheyyar sub-basin. Soil in the Lake is mostly clay with a fertile guano layer. Maximum depth of the tank is 5 m near the bund on the Western boundary of the Lake. The outflow is controlled through sluices in the bund. The terrain is flat and slope is gentle from East to West direction. The outflow is controlled through sluices in the bund. Northeast and Southwest monsoons contribute 54% and 36% respectively to the total annual rainfall. The southwest monsoon rainfall is highly erratic and summer rains are negligible. The rainfall fluctuates greatly from year to year varying from about 400 mm to almost 1700 mm.

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

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):

The water in the wetland is mostly of intermittent nature with frequent occasions of drying, as the wetland is mostly dependent on the rainfall and runoff waters. The pH of the water is alkaline and varies around 8.5.

4.4.7 - Water salinity

- 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
- 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
- Surrounding area has significantly different land cover or habitat types

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

There are paddy fields, patta area, poramboke land in the surrounding 5 km which creates problem in the course of implementation of Wildlife Protection Act, 1972&Forest Conservation Act, 1980 in the 5 km area resulting in conflict between forest department and people which is likely to have a negative effect on the protection of birds.

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)	High
Fresh water	Drinking water for humans and/or livestock	High
Fresh water	Water for irrigated agriculture	High

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
Climate regulation	Local climate regulation/buffering of change	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climatic processes	High
Biological control of pests and disease	Support of predators of agricultural pests (e.g., birds feeding on locusts)	High
Hazard reduction	Flood control, flood storage	High
Hazard reduction	Coastal shoreline and river bank stabilization and storm protection	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Spiritual and religious values	High

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
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
Pollination	Support for pollinators	High

Within the site:

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

Description if applicable

The zone of influence of Karikili Bird Sanctuary includes grazing poramboke land with scrub vegetation. The poramboke land is used for grazing by the cattle during the lean season and few years back spotted deer was found here. With reference to firewood, the villagers have alternative sources i.e. the dense growth of prosopis in all nearby areas. Karikili is dependant directly on rainwater mainly from catchment area viz., Karikili Malai.

In most sanctuaries, the relationship of people with forests is that of dependency for fuel, fodder etc. However, in case of Karikili, fuel-wood is mostly collected from Prosopis growing in surrounding private lands and not from within the sanctuary. Grazing occurs inside the bird sanctuary during summer when water recedes and reveals fresh green growth of vegetation. There is no grazing during the main season when birds arrive because of the presence of water. Main dependency however is for the guano enriched water which is let out of the tank into the fields periodically and which ensures high productivity of crops without the use of fertilizers. Most of the villagers are dependent upon the tanks for irrigation as agriculture is the primary source of livelihood. Historically, the wetland and its flora provided a range of associated services such as for thatch, making brooms, fodder, fencing, wild fruits especially of Phoneix sylvestris, fishing, etc.

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

Description if applicable

The Karikili Bird Sanctuary like Vedanthangal has a history of villager's initiative in protecting water birds and in turn is benefitted by the guano enriched water from the tank to Karikili's agricultural fields. Karikili lake was declared as sanctuary vide G.O.M.S. No. 332 Environment and Forests (FRV) Department dated 23rd May 1989 under section 18 of the Wildlife (Protection) Act ,1972.

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

Description if applicable

The surplus water from the tank is let out for irrigating the agricultural fields lying just adjacent to the tank. Moreover, the water in the tank is enriched with bird droppings, also known as 'guano'. The silt scraped from the dried-up tank bed is also highly valued as manure for the crops. The people of Karikili village are thus benefitted and hence, they offer protection to the birds. There is no case of poaching inside the tank and thus, the sanctuary gets benefitted.

- 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 wetland does not have any known traditional or customary systems of water conservation, nor does the landscape have any sacred groves or species. However, within the immediate periphery of the sanctuary, there is an old Amman temple which attracts a number of devotees. The festivities of the temple are celebrated on a rotational basis amongst the various groups.

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 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 wetland comes under the jurisdiction of Tamil Nadu Forest Department, Wildlife Division, Chennai.

5.1.2 - Management authority

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

Tamil Nadu Forest Department, Wildlife Division, Chennai

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

Wildlife Warden, Chennai Wildlife Division, Tamil Nadu Forest Department

Postal address:

Guindy Children's Park,
Rajbhavan post, Guindy,
Chennai- 600022
Tamil Nadu
INDIA

E-mail address:

wlwchennai@yahoo.com.in

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
Housing and urban areas	Medium impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Commercial and industrial areas	Medium impact		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Agriculture and aquaculture

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

Biological resource use

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

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Karikili was declared as Bird Sanctuary with following amendments; intention of the State Government to constitute any area under section 18(1) & the final notification under section 26A(1) i.e., "Declaration of area as sanctuary"	Karikili Bird Sanctuary		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Karikili 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

Species

Measures	Status
Control of invasive alien plants	Proposed
Control of invasive alien animals	Proposed
Threatened/rare species management programmes	Proposed

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

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

<no data available>

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Cromie, R.L., R. Lee, R.J. Delahay, J. L. Newth, M.F. O'Brien, H.A. Fairlamb, J.P. Reeves & D.A. Stroud. 2012. Ramsar Wetland Disease Manual: Guidelines for Assessment, Monitoring and Management of Animal Disease in Wetlands. Ramsar Convention Secretariat, Gland, Switzerland

Farmer, A.H. & Parent, A.H., (2006) Effects of the Landscape on Shorebird Movements at Spring Migration Stopovers. Habitat: Conservation Summaries for Strategy Habitats Strategy Habitat: Wetlands. Oregon Conservation Strategy, February 2006.

Johnson, Douglas, "Habitat Fragmentation Effects on Birds in Grasslands and Wetlands: A Critique of our Knowledge"(2001). Great Plains Research: A Journal of Natural & Social Sciences. Paper 568.

Millennium Ecosystem Assessment (2005) Ecosystems and Human Well-Being: Wetlands and Water Synthesis. World Resources Institute, Washington, DC

Robert E. Stewart, Jr. (2011) Technical Aspects of Wetlands as Bird Habitat, National Water Summary on Wetland Resources United States Geological Survey Water Supply Paper 2425.

TBGP (2014) Wetland Action Plan for Karikili Bird Sanctuary

BirdLife International (2014) Important Bird Areas factsheet: Vedanthangal and Karikili Bird Sanctuary. Downloaded from <http://www.birdlife.org>

Sánchez-Carrillo,S, Angeler,D.G,Álvarez-Cobelas,M &Sánchez-Andrés,R (2011) Eutrophication: causes, consequences & control. Freshwater Wetland Eutrophication pp 195-210.

Joy B. Zedler and Suzanne Kercher (2004) Causes and Consequences of Invasive Plants in Wetlands: Opportunities, Opportunists, and Outcomes. Critical Reviews in Plant Sciences, 23(5):431–452

Shaltout, Kamal H.; Al-Sodany, Yassin M.; Eid, Ebrahem M (2010) Growth behaviour of the invasive species Ipomoea carnea in the Nile Delta, Egypt. Hydrobiologia, Vol. 656 Issue 1, p187

National Wetland Atlas: Tamilnadu, SAC/RESA/AFEG/NWIA/ATLAS/22/2009, Space Applications Centre (ISRO), Ahmedabad, India, 222p.

Dzikitia, S, Schachtschneidera, K, Naikenb, V, Gusha, M. and Mosesc, G (2013) Water relations and the effects of clearing invasive Prosopis trees on groundwater in an arid environment in the Northern Cape, South Africa. Journal of Arid Environments, Vol 90, Pages 1-122

Water notes (2000) Wetlands as waterbird habitat. Water and Rivers Commission WN5 January, Natural Heritage Trust, Government of Western Australia.

Wetland Action Plan for Karikili Bird Sanctuary- 2013-18; prepared by Care Earth Trust

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

<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Spoon bill (Tamil Nadu State Wetland Authority, 19-11-2021)



Panoramic view of karikili Bird Sanctuary (Tamil Nadu State Wetland Authority, 19-11-2021)



Lesser whistling duck (Tamil Nadu State Wetland Authority, 19-04-2021)



Spot billed pelican (Tamil Nadu State Wetland Authority, 19-04-2021)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation