

Ramsar Information Sheet

India Nanjarayan Bird Sanctuary



Designation date
Site number
Coordinates

16 January 2024

11°08'03"N 77°23'10"E

Area 125,87 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

1.1 - Summary description

Please provide a short descriptive text summarising the key characteristics and internationally important aspects of the site You may prefer to complete the four following sections before returning to draft this summary.

Summarv

(This field is limited to 2500 characters)

The Nanjarayan lake is located around 110 8' 5" N and 770 22' 59" E is a large shallow wetland situated along the north-eastern region of Uthukuli Taluk of Tiruppur District in Tamil Nadu. The wetlands in this region depend mainly on weather conditions, especially on heavy rain water flow from Nallar drainage. Nanjarayan Lake is located on the Tiruppur -Uthukkuli main road about 10 km north of Tiruppur city in an area of 125.86.50 Ha near Sarkar Periyapalayam village in Tiruppur district. The lake falls under two villages (Sarkar Periyapalayam and Neruperichal). The lake got its name from the fact that it was repaired and restored by King Nanjarayan who was ruling the region many centuries ago.

Further, about 191 species of birds, 87 species of butterflies, 7 species of amphibians, 21 species of reptiles, 11 species of small mammals and 77 species of plants have been recorded in and around the lake. The site acts as feeding and nesting habitat for resident bird species, migratory birds use this lake as their feeding ground during the migratory season. The lake also serves as important water source for agricultural purpose in the region. The lake plays vital role in ground water recharge. The lake is announced as 17th bird sanctuary of state of Tamil Nadu owing to its rich avifaunal diversity. The local community has already formed strong association in protecting the lake and its habitat. The forest department in collaboration with the local community manages the lake on sustainable basis.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Name Shri. Deepak Srivastava, IFS

Institution/agency | Tamil Nadu State Wetland Authority

Postal address O/o Principal Chief Conservator of Forests & Member Secretary No.1, Jeenis Road, Panagal Building, (This field is limited to 254 characters) VIII Floor, Saidapet, Chennai 600 015 Tamil Nadu, INDIA

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National Ramsar Administrative Authority

Name Ms. Leena Nandan, AS., Secretary, Ministry of Environment, Forest & Climate Change

Institution/agency | Ministry of Environment, Forest and Climate Change

Secretary

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Ministry of Environment, Forest and Climate Change

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

From year 2015

Period when the data and information for the sheet for a newly designated site was compiled

For updated RIS: Period when the data and information for revision of an existing sheet was updated

To year 2023

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Nanjarayan Bird Sanctuary Spanish)

Unofficial name (optional) Nanjarayan Bird Sanctuary

2.2 - Site location

2.2.1 - Defining the Site boundaries

a) GIS boundaries link

Materials presented on this website, particularly maps and territorial information, are as-is and as-available based on available data and do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Ramsar Convention concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

b) Digital map/image

IN map240613.pdf

Former maps

Boundaries description

(This field is limited to 2500 characters)

North: Starting from Tri-junction of Village No 7. Mannarai and Village No.3. Nerupperichal of Tiruppur – North Taluk and Village No. 37. Sarkar Periyapalayam of Uthukuli Taluk, then runs towards East along the Southern side of S.F. Nos 458, 457, 456, 448, 447 of Village No. 3. Nerupperichal Village then runs towards north along Eastern side of S.F. Nos. 445, 444, 451 and 462 of Village No. 3. Nerupperichal Village then runs towards East along the Southern side of S.F. Nos 442, 441 and 440 of Village No. 3. Nerupperichal Village and run towards South along the Western side of S.F. Nos 437, 436 and 433 of Village No. 3. Nerupperichal Village.

East: Then the Boundary runs generally towards South and the along Western side of SF. Nos. 123, 122, 121 and 39 of Village No. 37 Sarkar Periyapalayam.

South: Then the Boundary runs towards West along with Northern side of SF. Nos. 38, 36, 35, 31, 30, 21, 20, 19, 18, 17 and 16 of Village No 37. Sarkar Periyapalayam.

		ally towards North along with Eastern side of SF. Nos. 9, 5, 4, 13 of Village No 7. Mannarai Village boundary and joins the s	
Coordinates of the centre of the	site, as automatica	lly estimated from the GIS boundaries (for information only)	
2.2.2 - General location			
a) In which large administra	tive region does the site lie?	The wetland is situated at a distance of approximately 10 km Tiruppur-Uthukuli main road. Nanjarayan Lake Bird Sanctuar	• •
b) What is the nearest too	vn or population centre?	Villages that surround the wetland include Sarkar Periyapala	yam and Nerupperichal village.
2.2.3 - For wetlands on	national bound	daries only	
a) Does the wetland e	extend onto the te	ritory of one or more other countries?	
b) Is the site adjacen		nated Ramsar Site on the another Contracting Party?	
c) Is the site part of a form	nal transboundar	y designation with another Yes O No	
d) Transboundary Ram	nsar Site name:		
2.2.4 - Area of the Site			
If you have not established an o	fficial area by other	means, you can copy the area calculated from the GIS boundaries into the 'official are	ea' box.
Official area, i	in hectares (ha):	125.865	
Area, in hectares (ha) as	calculated from GIS boundaries	126.274	
2.2.5 - Biogeography			
Please provide the biogeograph	ic region(s) encom	passing the site and the biogeographic regionalization scheme applied:	
Biogeographic regions Regionalisation scheme(s)		Biogeographic region	
	South Deccan Pla	ateau dry deciduous forests	
Other biogeographic regiona (This field is limited to 2500 chara			

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

Tick the box against each criterion applied to the designation of the Ramsar Site. All criteria which apply should be ticked. Please explain why you selected a criterion by filling in the relevant fields on this page, on the three other pages of this section 'Criteria & justification' and on the 'Wetland types' page of the section 'What is the site like?'. More guidance on how to justify a criterion will appear when you tick it as well as in the help box.

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

To justify this Criterion, please select at least one wetland type as representative, rare or unique in the section What is the site like? > Wetland types and provide further details in at least one of the three boxes below.

Hydrological services provided (This field is limited to 3000 characters)	
Other ecosystem services provided (This field is limited to 3000 characters)	
Other reasons (This field is limited to 3000 characters)	

☑ Criterion 2 : Rare species and threatened ecological communities

Justification, see: - relevant plant species in the section Criteria & justification > Plant species (3.2) - relevant animal species in the section Criteria & justification > Animal species (3.3) - relevant ecological communities in the section Criteria & justification> Ecological communities (3.4)

The Site supports 2 Vulnerable (VU) species and 6 Near Threatened (NT) species. Out of the 191 Optional text box to provide further species of birds recorded in the Site, 1 species is classified as VU and 5 as NT in the IUCN Red List. information Other VU species in the Site is the Indian flap-shelled turtle. The Indian flap-shelled turtle prefers swampy (This field is limited to 3000 characters) areas with ample soil and sunlight as nesting grounds which is provided by this Site. It is also pouched for meat, hence, conserving this Site is important for protecting this species.

☑ Criterion 3 : Biological diversity

Justification, see: - relevant plant species in the section Criteria & justification> Plant species (3.2) - relevant animal species in the section Criteria & justification> Animal species (3.3)

The site supports about 191 bird, 11 mammal, 82 butterflies, 21 reptile, 7 amphibian and 77 plant species. The site provides diverse habitats such as bunds, shallow water and deep water habitats, thus supporting various types of flora and fauna. The site especially supports diverse variety of water bird species. The site lies in the Central Asian fly way and is an important breeding and foraging ground for both resident as well as migratory birds species. Near threatened (NT) Darter, breeds in the trees found in this area. Several other species of water birds such as Cormorants. Egrets and Storks also use the area as breeding grounds because of the availability of food for the juveniles during the breeding season and also due to the trees found in the bunds of the wetland which helps them to be protected from predators. The wetland birds such as Cormorants and Darter are very much dependent on the wetland as they have special adaptation to hunt their prey by diving in the water and several species of Ducks visit the wetland to feed on the aquatic vegetation. Thus the water birds, with specific adaptation to survive in wetland habitat, is critically dependent on the Nanjarayan Bird Sanctuary. Migratory Wader species also visit the wetland in huge numbers and thus the wetland is considered as one of the important stopover site for migratory birds. Hence the wetland helps in maintaining the biological diversity of this particular biogeographic region.

(This field is limited to 3000 characters)

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

Justification, see: - relevant plant species in the section Criteria & justification > Plant species (3.2) - relevant animal species in the section Criteria & justification > Animal species (3.3) and explain the life cycle stage or nature of adverse conditions in the accompanying 'justification' box.

Optional text box to provide further

(This field is limited to 3000 characters)

The heronry of Nanjarayan Birds Sanctuary supports more than 100 individuals of colonial nesting water birds. Near threatened Oriental Darter nest in the trees of the wetland. The Site also provides nesting site for Vulnerable Indian Flap-shelled Turtle as they prefer Swampy areas with soil and exposure to sunlight and the site provides suitable habitat for them. The wetland provides refuge for migratory waterbirds and acts as a foraging ground for them. The migratory bird species uses the Site as an important stopover point during their migration.

	Cri	terioi	า 5	: >	>20,	UUU	wa	ter	bird	S
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Justification, see:- the total number of waterbirds and the period of data collection - relevant waterbird species, and if possible their population size, in the section Criteria & iustification > Animal species (3.3)

Overall waterbird numbers	
F	
Start year	
Γ	
End year	
Source of data:	
ional text box to provide further	
information	
s field is limited to 3000 characters)	

☑ Criterion 6 : >1% waterbird population

Opt (Thi:

Justification, see: Criteria & justification > Animal species (3.3)

More than 1% population of Near threatened Spot-billed Pelican and Least Concerned Indian Cormorant Optional text box to provide further of the South Asian population is supported by the Site. The site acts as a foraging ground for the bird information species and the Indian Cormorant breeds in the trees found in the wetland. The bird population data was (This field is limited to 3000 characters) used from the Waterbirds Population Portal to determine the percentage of occurrence of the species in the biogeographical region.

☐ Criterion 7 : Significant and representative fish

Justification, see: Criteria & justification > Animal species (3.3)

(This field is limited to	Justification 3000 characters)								
☐ Criterion 8 : Fish spa To justify this Criterion, please		below. Completion of det	ails on relevant fish spec	cies in the section Criter	ia & justi	fication> Animal species	(3.3) is optional.		
(This field is limited to	Justification 3000 characters)								
☐ Criterion 9 : >1% nor To justify this Criterion, please			population size in the se	ection Criteria & justifica	ion> Aniı	mal species (3.3)			
Optional text box to (This field is limited to	information								
3.2 - Plant species	whose presence	relates to the in	nternational imp	ortance of the					
Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I		Other status	Justification
Plantae									
TRACHEOPHYTA/ MAGNOLIOPSIDA	Vachellia nilotica G8IF		②		LC Oran				The site provides nesting habitat for water birds that are dependent on the wetlands. Water bird species such as Near Threatened Darter breeds in the trees found in the bunds of the lake which also provides protection from predators helping in increased survival rate of juveniles. Thus the species is important in maintaining the biological diversity of the area.
GBIF Secretariat (2019). GBIF Be	ackbone Taxonomy. Checklist	dataset <u>https://doi.org/10.15</u>	<u>468/39omei</u> accessed via (GBIF.org on 2020-07-15.					
Optional text box to provide furth	er information on plant species	of international importance.							
(This field is limited to 3000 charac	cters)								
3.3 - Animal specie									

Animals are listed in the following order: birds; fish, mollusc and curstaceen; other animals

RIS for Site no., Nanjarayan Bird Sanctuary, India

Phylum	Scientific name	Period of pop. Est.		IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Others								
CHORDATA/ REPTILIA	Lissemys punctata			VU •å: •\mathrew{m}			Protected under Schedule I (Part C) of the Wild Life (Protection) Amendment Act, 2022.	The site provides suitable habitat for the turtle species and also provides breeding ground as the species prefers areas with soil exposed to sunlight along the bank of waterbodies.
Birds								
CHORDATA /	Anhinga melanogaster			NT Sign			Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.	The species breeds in the trees found in and around the wetland and also uses the wetland as foraging ground
CHORDATA / AVES	Ciconia episcopus			NT • INF			Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.	The bird migrates in the Central Asian Flyway and the site provides feeding ground for the bird species during migratory season
CHORDATA /	Limosa limosa			NT • is			Appendix II of CMS, Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.	The bird migrates in the Central Asian Flyway and the site provides feeding ground for the bird species during migratory season
CHORDATA /	Pelecanus philippensis	26 2023	1.26	NT ● is ● is			Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.	The species uses the wetland as foraging ground. The population of the bird is of the South Asian region according to the Waterbirds Population Portal and 1% threshold population is 100.
CHORDATA / AVES	Phalacrocorax fuscicollis	10 2020	1.36	LC			Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.	The species breeds in the trees found in and around the wetland. It uses the wetland as foraging ground. The population of the bird is of the South Asian region according to the Waterbirds Population Portal and 1% threshold population is 300.
CHORDATA / AVES	Sterna aurantia			VU • iii • iiii			Protected under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.	The site provides foraging ground for the species.

¹⁾ Percentage of the total biogeographic population at the site

GBIF Secretariat (2019). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org on 2020-07-15.

Optional text box to provide further information on animal species of international importance:

(This field is limited to 3000 characters)

The site supports the bird and turtle species by providing suitable habitat, foraging ground and breeding habitat. The site lies in the Central Asian Flyway and hence it is an important stopover site for migratory birds.

The population estimate of the species have been made with the data collected by Tamil Nadu Forest Department and data from ebird which is a citizen science platform. The population data from Waterbirds Population Porta has been used to estimate the 1% threshold population for various bird species.

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

Name of ecological community | Community qualifies under Criterion 2? | Description | Justification | <no data available>

Optional text box to provide further information		
(This field is limited to 4000 characters)		

RIS for Site no., Nanjarayan Bird Sanctuary, India

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

4.1 - Ecological character

Please summarize the ecological components, processes and services which are critical to determining the ecological character of the site. Please also summarize any natural variability in the ecological character of the site, and any known past or current change

(This field is limited to 4000 characters,

The site comes under Southern Deccan Plateau dry deciduous forest in the Regionalization scheme of WWF (World Wide Fund For Nature) Terrestrial Ecoregions. A major water source of the Nanjarayan Tank is the Nallar river. The average depth of the water in the wetland is 19 feet. The elevation of the wetland is 285 meters (msl). Main source of water for the wetland is rainfall, the surrounding runoff from the catchment area and from the Nallar river. Water is mostly present throughout the year but dries very rarely during severe drought. The average annual rainfall is around 700 mm (28 in), the North East and the South West monsoons contributing to 47% and 28% respectively to the total rainfall received in this region. Any excess water accumulated due to excess rainfall or any other reason is diverted towards the Sarkar Periyapalayam village for irrigation purpose. The site provides provisional ecosystem services, such as, fresh water for drinking purposes and irrigating the agricultural fields to the adjoining villages around the lake. It also maintains the hydrological regime of the area, protects soil from erosion, regulates climate and reduces hazards by acting as a buffer during floods and extreme rainfalls. It is a major source of ground water recharge. It also provides cultural services in the form of recreation and tourism and supporting services in the form of biodiversity, nutrient cycling and pollination.

The site supports diverse variety of flora and fauna which includes 191 species of birds, 87 species of butterflies, 7 species of amphibians, 21 species of reptiles, 11 species of small mammals and 77 species of plants have been recorded in and around the lake. The site acts as feeding and nesting habitat for resident bird species, migratory birds use this lake as their feeding ground during the migratory season. The lake also serves as important water source for agricultural purpose in the region. The lake plays vital role in ground water recharge.

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

Please list all wetland types which occur on the site, and for each of them:

- rank the four most abundant types by area from 1 (greatest extent) to 4 (least extent) in the third column,
- if the information exists, provide the area (in ha) in the fourth column
- if this wetland type is used for justifying the application of Criterion 1, indicate if it is representative, rare or unique in the last column
- you can give the local name of the wetland type if different from the Ramsar classification system in the second column

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1			
<no available="" data=""></no>							

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 > Lakes and pools >> O: Permanent freshwater lakes	Nanjarayan lake	1	125.865	

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type			
<no available="" data=""></no>						

What non-wetland habitats are within the site?

Other non-wetland habitat

Other non-wetland habitats within the site Area (ha) if known

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(ECD) Habitat connectivity

4.3 - Biological components

4.3.1 - Plant species

GBIF Secretariat (2019). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org on 2020-07-15

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	Borassus flabellifer	India to Indo-China, Jawa to Lesser Sunda Islands. It is a tree and grows primarily in the wet tropical biome.
TRACHEOPHYTA/MAGNOLIOPSIDA	Calotropis gigantea	The native range of this species is S. China to Tropical Asia
TRACHEOPHYTA/MAGNOLIOPSIDA	Ficus religiosa	The species is found thought India. The native range of this species is SE. Pakistan to Myanmar.
TRACHEOPHYTA/MAGNOLIOPSIDA	Pongamia pinnata	The native range of this species is Tropical & Subtropical Asia to W. Pacific. It is a shrub or tree and grows primarily

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/LILIOPSIDA	Eichhornia crassipes	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	Lantana camara	Actual (minor impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	Prosopis juliflora	Actual (minor impacts)

GRIE	Secretariat (2010)	GRIE Backhone	Tavanamy	Checklist dataset h	ttne://doi.org	v/10 15/68/30 omei	accessed via G	RIE org or	2020-07-1	5
GDIF	Secretarial (2019).	. GDIF DACKDUILE	Taxononiv.	CHECKIISI Galasel II	LLDS.//UOI.OFG	I/ 1 U. I 3400/390III U I	accessed via G	שור.טוע טו	1 2020-07-1	U.

Optional text box to provide further information

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IIIIS	nera	is illilited	ιυ	2500	criaracters	,

4.3.2	_ ∆ni	ma	lene	ciae

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/AVES	Accipiter badius				d under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Anastomus oscitans				Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/REPTILIA	Atretium schistosum				Protected under Schedule I (Part C) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Ciconia nigra				Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Circus aeruginosus				d under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Circus pygargus				d under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/REPTILIA	Daboia russelii				Protected under Schedule I (Part C) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Haliastur indus				d under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/MAMMALIA	Herpestes edwardsi				Protected under Schedule I (Part A) of the Wild Life (Protection) Amendment Act, 2022.

Phylum	Scientific name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
ARTHROPODA/INSECTA	Hypolimnas misippus				Protected under Schedule II (Part H) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATAVAVES	Mycteria leucocephala				Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/REPTILIA	Naja naja				Protected under Schedule I (Part C) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Nettapus coromandelianus				d under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/MAMMALIA	Paradoxurus hermaphroditus				Protected under Schedule I (Part A) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATAAVES	Pavo cristatus				Protected under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Platalea leucorodia				Protected under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/AVES	Pluvialis fulva				Protected under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/REPTILIA	Ptyas mucosa				Protected under Schedule II (Part C) of the Wild Life (Protection) Amendment Act, 2022
CHORDATA/AVES	Tringa glareola				Protected under Schedule II (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATAAVES	Tringa nebularia				Protected under Schedule I (Part B) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/REPTILIA	Varanus bengalensis				Protected under Schedule I (Part C) of the Wild Life (Protection) Amendment Act, 2022.
CHORDATA/REPTILIA	Xenochrophis piscator				Protected under Schedule I (Part C) of the Wild Life (Protection) Amendment Act, 2022.

GBIF Secretariat (2019). GBIF Backbone Taxonomy. Checklist dataset https://doi.org/10.15468/39omei accessed via GBIF.org on 2020-07-15.

Invasive alien animal species

invasive alien animal species		
Phylum	Scientific name	Impacts
CHORDATA/ACTINOPTERYGII	Clarias gariepinus	Actual (major impacts)
CHORDATA/ACTINOPTERYGII	Oreochromis mossambicus	Actual (major impacts)

Optional text box to provide further information

(This field is limited to 2500 characters)

4.4 -	Ph	/sical	com	ponen	ts
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4.4.1 - Climate

Please indicate the prevailing climate type(s) by selecting below the climatic region(s) and subregion(s), using the Köppen-Gieger Climate Classification System.

Climatic region	Subregion
A: Tropical humid climate	Af: Tropical wet (No dry season)

If changing climatic conditions are affecting the site, please indicate the nature of these changes:

average annual rainfall is around 70 to the total rainfall.	ture with occasionally drying, as the wetland is mostly dependent on the rainfall and runoff wate mm (28 in) with the North East and the South West monsoons contributing to 47% and 28% r	
.4.2 - Geomorphic setting		
a) Minimum elevation above sea level (in metres)	285	
a) Maximum elevation above sea level (in metres)	290	
b) Position in landscape/river basin:		
	Entire river basin	
	Upper part of river basin	
	Middle part of river basin ✓	
	Lower part of river basin \Box	
	More than one river basin \square	
	Not in river basin	
	Coastal	
(This field is limited to 1000 characters)	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce	an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is locate		an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is locate tributaries of the Noyyal river, runs the state of the Noyyal river.	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce If in the Nallaru river basin. Nallaru, being one of the	an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is locate tributaries of the Noyyal river, runs the state of the Noyyal river.	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce If in the Nallaru river basin. Nallaru, being one of the	an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is locate tributaries of the Noyyal river, runs the state of the Noyyal river.	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce in the Nallaru river basin. Nallaru, being one of the rough Tiruppur city and floods the Nanjarayan Bird Sanctuary.	an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is locate tributaries of the Noyyal river, runs the state of the Noyyal river.	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce in the Nallaru river basin. Nallaru, being one of the rough Tiruppur city and floods the Nanjarayan Bird Sanctuary.	an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is located tributaries of the Noyyal river, runs the solution. 4.3 - Soil Are soil types subject to change as a result.	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce I in the Nallaru river basin. Nallaru, being one of the rough Tiruppur city and floods the Nanjarayan Bird Sanctuary. Mineral Organic No available information	an.
(This field is limited to 1000 characters) Nanjarayan Bird Sanctuary is located tributaries of the Noyyal river, runs the solution. 4.3 - Soil Are soil types subject to change as a result.	te lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or oce If in the Nallaru river basin. Nallaru, being one of the rough Tiruppur city and floods the Nanjarayan Bird Sanctuary. Mineral Organic No available information tof changing hydrological Yes O No at a salinity or acidification)?	an.

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

P	resence?	Predominant water source	
Water in	puts from surface water	>	No change
	er inputs from recipitation		No change

Presence?	
To downstream catchment	No change
Feeds groundwater	No change
Stability of water regime	
Presence?	

	the and its determinants (in relevant). Ose this box to explain sites with complex hydrology.	
(This field is limited to 2000 characters)		
is rainfall, the surrounding runoff from drying, as the wetland is mostly depo	ne wetland is 19 feet. The elevation of the wetland is 285 meters (msl). Main source of water for the m the catchment area and from the Nallar Rivers. The water is mostly of intermittent nature with occa- endent on the rainfall and runoff waters. The average annual rainfall is around 700 mm (28 in) with the contributing to 47% and 28% respectively to the total rainfall. If excess water gets accumulated, it coalayam village.	asionally the North
(ECD) Connectivity of surface waters and of		
groundwater		
(ECD) Stratification and mixing regime		
4.4.5 - Sediment regime		
Significant erosion of se	diments occurs on the site	
Significant accretion or deposition of se	diments occurs on the site	
Significant transportation of sediments oc	ccurs on or through the site	
Sediment regime is highly variable, either s	easonally or inter-annually	
\$	Sediment regime unknown 🗹	
Please provide further information on sedime (This field is limited to 1000 characters)	ent (optional):	
(ECD) Water turbidity and colour		
(ECD) Light - reaching wetland		
(ECD) Water temperature		
v===/ water temperature		
4.4.6 - Water pH		
	Acid (pH<5.5) □	
С	Circumneutral (pH: 5.5-7.4)	
Alkaline (pH>7.4) ✓		
	Unknown	
Please provide further information on pH (opti (This field is limited to 1000 characters)	ional):	
4.4.7 - Water salinity		
	Fresh (<0.5 g/I) ✓	
Mixohaline (brackish)/Mixosaline (0.5-30 g/l) □		
Euhaline/Eusaline (30-40 g/l)		
Hyperh	naline/Hypersaline (>40 g/l) 🗖	
Please provide further information on salinity (This field is limited to 1000 characters)	Unknown ☐ (optional):	
(FCD) D:		
(ECD) Dissolved gases in water (This field is limited to 1000 characters)		

RIS for Site no. , Nanjarayan Bird S	anctuary, India
4.4.8 - Dissolved or suspended nutrie	
	Eutrophic 🗆
	Mesotrophic □
	Oligotrophic □
	Dystrophic ☐
	Unknown ☑
Please provide further information on dissolve (This field is limited to 1000 characters)	ed or suspended nutrients (optional):
(This herd is milted to 1000 characters)	
(ECD) Dissolved organic carbon	
(ECD) Redox potential of water and	
sediments	
(ECD) Water conductivity	
4.4.9 - Features of the surrounding ar	ea which may affect the Site
Please describe whether, and if so how, the	landscape and ecological Ramsar Site differ from the i) broadly similar ○ ii) significantly different ◎
characteristics in the area surrounding the r	site itself:
If the surrounding area differs from the Ramsar Site	e, please indicate how: (Please tick all categories that apply)
Surrounding area has greater urb	panisation or development 🗹
Surrounding area has higher	human population density 🗹
Surrounding area has more	e intensive agricultural use 🗹
Surrounding area has significantly different	land cover or habitat types 🗹
Please describe other ways in which the surro (This field is limited to 2000 characters)	ounding area is different:

Nanjarayan Lake is a part of Neruperichal village, Sarkar Periyapalayam Village, Uthukuli Talukh, Tiruppur district, Tamil Nadu, India. The lake is 10 km away from Tiruppur Town. Villages that surround the wetland include Neruperichal Sarkar Periyapalayam and Koolipalayam and high agricultural and development activities are undertaken in the areas around the lake.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Please select below all relevant ecosystem services/benefits currently provided by the site and indicate their relative importance in the right-hand column.

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

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 climactic processes	High
Biological control of pests and disease	Support of predators of agricultural pests (e.g., birds feeding on locusts)	High

Cultural Services

Outland Convioco		
Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	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
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	High

Optional text box to provide further information

(This field is limited to 2500 characters)

The total population of the Sarkar Periyapalayam village consists of 2977 males and 3009 females and Neruperchal village consists 27162 and females 27675. Maximum population is located in Neruperichal village followed by Sarkar Periyaplayam. Agriculture and allied activities such as livestock rearing are the major sources of economy for the people. Thus majority of the people directly or indirectly benefit from the lake

	ve:
(This field is limited to 2000 characters)	
Please make a rough estimate of the approximate	number of people (distinguish between residents and visitors if possible) who directly benefit from the ecological services provided by this site
(estimate at least in orders of magnitude: 10s, 100	0s, 1000s, 10 000s etc.):
Within the site:	V: 1000s
Outside the site:	R: 10000s; V: 10000s
ecosystem services pro	of the economic valuation of Yes ○ No ○ Unknown ○ vided by this Ramsar Site?
Where economic studies or assessments of	economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies
may be located (e.g. website links, citation of	
(This field is limited to 2500 characters)	
	as Institute of Developmental Studies, Chennai. The study report has been uploaded in the Thamil Nadu following link, https://drive.google.com/file/d/1xMXKboFX3OM0zJQ6ozgDUs7znnG1Lzm6/view
	<u> </u>
1.5.2 - Social and cultural values	
1.0.2 Coolai ana caltarai valaco	
Is the site considered internationally important for	holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin,
	please describe this importance under one or more of the four following categories. You should not list here any values derived from non-sustainable
exploitation or which result in detrimental ecologic	cal changes.
i) the site provides a model of wetland w	ise use, demonstrating the
	sthods of management and
application of traditional knowledge and me	
application of traditional knowledge and me use that maintain the ecologic	cal character of the wetland
	cal character of the wetland

Description if applicable		
(This field is limited to 2500 characters)		
The Nanjarayan Bird Sanctuary was renovated by King Nanjarayan who had ruled these parts several hundred years ago.		
iii) the ecological character of the wetland with local communit	depends on its interaction ties or indigenous peoples	
Description if applicable		
(This field is limited to 2500 characters)		
iv) relevant non-material values such as sa	cred sites are present and	
their existence is strongly linked with the ma		
	character of the wetland	
Description if applicable		
(This field is limited to 2500 characters)		
4.6 - Ecological processes		
+.0 - Ecological processes		
This section is not intended for completion as part X.15	t of a standard RIS, but is included for completeness as part of the agreed format of a 'full' Ecological Character Description (ECD) outlined by Resoluti	
X.13		
(ECD) Primary production		
(ECD) Nutrient cycling		
(ECD) Carbon cycling		
(ECD) Animal reproductive productivity		
(ECD) Vegetational productivity, pollination,		
regeneration processes, succession, role		
of fire, etc.		
(ECD) Notable species interactions,		
including grazing, predation, competition,		
diseases and pathogens		
(ECD) Notable aspects concerning animal		
and plant dispersal		
(ECD) Notable aspects concerning migration		
(ECD) Pressures and trends concerning any		
of the above, and/or concerning ecosystem		

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	>	
Private ownership		
Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)		>
Other		
Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	✓	

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

(This field	is limited to	1000 characters)
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	5.1.2 -	Managemer	t authorit\
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Please list the local office / offices of any	Tamil Nadu Forest Department, Tiruppur District
agency or organization responsible for	
managing the site:	
(This field is limited to 1000 characters)	
Provide the name and/or title of the person	Thiru. Devendra Meena
or people with responsibility for the wetland:	Timu. Develora interna
- · · · · ·	O/a The Deputy Director Rebulyban Street Lidymellost Dir. 642 126
Postal address:	O/o The Deputy Director, Babukhan Street, Udumalpet, Pin – 642 126.
(This field is limited to 1000 characters)	
E-mail address:	dfo.tntpr@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
Housing and urban areas	Medium impact	High impact		✓

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Medium impact	Medium impact		\checkmark
Canalisation and river regulation	Medium impact	High impact	2	

Agriculture and aquaculture

	Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
	Marine and freshwater aquaculture	Medium impact	High impact	✓	✓

Energy production and mining

Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area | <no data available>

Transportation and service corridors

Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area | <no data available>

Biological resource use

Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area | <no data available>

RIS for Site no., Nanjarayan Bird Sanctuary, India Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area <no data available> Natural system modifications Factors adversely **Actual threat** Potential threat Within the site In the surrounding area affecting site Dams and water management/use \mathbf{J} \mathbf{J} Medium impact High impact Invasive and other problematic species and genes Factors adversely **Actual threat Potential threat** Within the site In the surrounding area affecting site Invasive non-native/alien High impact High impact \mathbf{V} $\overline{\checkmark}$ species Pollution Factors adversely **Actual threat Potential threat** Within the site In the surrounding area affecting site Household sewage, urban waste water \mathbf{V} $\overline{\checkmark}$ Medium impact Medium impact Geological events Factors adversely affecting site | Actual threat | Potential threat | Within the site | In the surrounding area Climate change and severe weather Factors adversely Within the site In the surrounding area **Actual threat** Potential threat affecting site Habitat shifting and \checkmark Medium impact Medium impact alteration \checkmark Droughts Medium impact Medium impact \Box Temperature extremes Medium impact Medium impact Please describe any other threats (optional): (This field is limited to 3000 characters) 5.2.2 - Legal conservation status Please list any other relevant conservation status, at global, regional or national level and specify the boundary relationships with the Ramsar Site: Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
<no available="" data=""></no>			

Regional (international) legal designations

Designation type Name of area Online information url Overlap with Ramsar Site <no data available>

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Bird Sanctuary	Nanjarayan Bird Sanctuary	https://forests.tn.gov.in/storag e/tnfd/G.O.%28Ms.%29No.154%20-%2 0Nanjarayan%20Birds%20Sanctuary% 2C%20Tiruppur.pdf	whole

Non-statutory designations

Desig	nation type	Name of area	Online information url	Overlap with Ramsar Site
<no available="" data=""></no>				

	2.3 - IUCN protected areas categories (2008)
. 🗆	la Strict Nature Reserve
-	lb 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	pro	tection
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Legal protection			
Measures	Status		
Legal protection	Implemented		

Hahitat

Habitat	
Measures	Status
Habitat manipulation/enhancement	Partially implemented

Species

Species		
Measures	Status	
Control of invasive alien plants	Partially implemented	

Human Activities

Measures	Status
Harvest controls/poaching enforcement	Implemented

(This field is limited to 3000 characters)

5.2.5 - Management planning

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

Is the management plan/planning implemented? Yes
No O

The management plan covers All of Ramsar Site

Is the management plan currently subject to review and update? Yes O No

Has a management effectiveness assessment been undertaken for the site? Yes O No @

Please give link to site-specific plan or other relevant management plan if this is available via the Internet or upload it in section 'Additional material':

(This field is limited to 500 characters)

https://forests.tn.gov.in/storage/tnfd/243b48e9-d1ee-44a0-ae1f-75f0890948a8.pdf

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

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

(This field is limited to 1000 characters)

The Forest Department conduct some educational activities in the site.

URL of site-related webpage (if relevant):

5.2.6 - Planning for restoration

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

Has the plan been implemented? Yes O No ●

The restoration plan covers: All of Ramsar Site

Is the plan currently being reviewed and updated? Yes O No

Where the restoration is being undertaken to mitigate or respond to a threat or threats identified in this RIS, please indicate it / them:

(This field is limited to 1000 characters)

Further information

(This field is limited to 2500 characters)

Conservation measures are being undertaken as per the Government Orders. The efforts include improving the wildlife habitats by extending and strengthening the area wherever required, ensuring connectivity of habitats management of wildlife resources at Landscape level, harnessing the sentiments of tribal and forest dwellers in wildlife management while ensuring livelihood security, protecting the migratory birds by wetland habitat conservation through periodic inventory of avifauna and other biodiversity, and understanding the lesser known diversity for conservation gains.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Proposed
Birds	Proposed

Please indicate other monitoring activities:
(This field is limited to 3000 characters)