Ramsar Information Sheet

Published on 3 August 2022

India

Vellode Bird Sanctuary

Designation date	8 April 2022
Site number	2475
Coordinates	11°15'06"N 77°39'06"E
Area	77,19 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

Vellode Bird Sanctuary is located in the Vadamugam Vellode Village of the Perundurai Taluk, located in the Erode District, Tamil Nadu, India. It is located about 12 km from Erode along Chinnamalai main road. Vellode Bird Sanctuary provincially known as Periyakulam Yeri is one of the 141 Prioritized wetlands in Tamil Nadu. The wetlands have been evaluated and prioritized considering factors like the ecology of the wetland, earlier bird counts, records of breeding, and roosting colonies. This sanctuary is one among the 10 critical breeding habitats of wetland birds in Tamil Nadu which is situated near the city of Erode, which has no other ecologically refreshing recreation facilities nearby. The farmers from the fringe villages share a symbiotic relationship with the sanctuary, as they believe that their crop yields are enhanced with the arrival of a large number of birds. This is due to the irrigation water getting enriched by bird droppings. This is an added advantage to the farmers, who are always eager to have better productivity with organic fertilizers. This site forms part of the Central Asian Flyway.

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 Wetalnd Authority

Postal address: O/o Additional Principal Chief Conservator of Forests & Member Secretary No.1, Jeenis Road, Panagal Building, VIII Floor, Saidapet, Chennai 600 015 Tamil Nadu, INDIA

National Ramsar Administrative Authority

Institution/agency: Ministry of Environment, Forest & Climate Change

Postal address: Ministry of Environment, Forest and Climate Change, Government of Inidia
Indira Paryavaran Bhawan
Jorbagh Road
New Delhi - 110 003
INDIA

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

From year: 2002

To year: 2021

2.1.3 - Name of the Ramsar Site

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

Unofficial name (optional): Periyakulam Yeri

2.2 - Site location

2.2.1 - Defining the Site boundaries

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

Former maps: 0

Boundaries description

Villages that surround the sanctuary include Vadamugam Vellode, Pungambadi and Thenmugam Vellode village of Perundurai Taluk on the eastern side. The western side boundary runs along Odai-Poramboke that eventually meets the Lowe Bhavani Project Cannal. The northern side has the Lower Bhavani Project main canal running towards the east along the southern boundary of Pungambadi village.

2.2.2 - General location

a) In which large administrative region does the site lie?: Declared Bird Sanctuary under Section 26(1) of Wildlife Protection Act 1972 (Central Act 53) in G.O.Ms.No.44, Environment& Forests (FRV) Dept. dated 29.2.2000 in Tamil Nadu Gazette.

b) What is the nearest town or population centre?: Six villages around the site are Karukkangattu valasu, Vellode Mettupalayam, Thalaikattur, Sellapampalayam, Semmandapalayam and Thatchangarai Vazhi.

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): 77.185

Area, in hectares (ha) as calculated from GIS boundaries: 79.397

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
WWF Terrestrial Ecoregions	Falls under South Deccan Plateau Dry Deciduous Forests, predominantly deciduous vegetation, also known for thorn forests& pockets of semi-evergreen forests; represents catchment area of major Indian rivers
Freshwater Ecoregions of the World (FEOW)	Southeastern Ghats-716

Other biogeographic regionalisation scheme

The Sanctuary is located in the Erode district and is a storage tank which was planted with Acacia nilotica trees. Although Singapore Cherry, Muntingia calabura are found along the edges of the water, they are unable to thrive in the waterlogged areas. Profuse growth of Prosopis juliflora is seen all along the bunds. The Sanctuary forms an ideal habitat for the birds, because of the availability of abundant food (benthos and fish) in the tank and in the neighbouring agricultural fields and plenty of trees for perching and nesting. The temperature ranges from maximum of 38oC in summer to a minimum of 19oC in the winter. The sanctuary receives rainfall from the Northeast monsoon between September and December. The Sanctuary is visited by large number of resident and migratory bird species.

Broadly, the biogeographic features of the region are comprised of long undulating plains gently sloping towards the river Cauvery in the south-east. The two major tributaries of river Cauvery viz. Bhavani and Noyyal drain the long stretch of mountains in the north. A part of the eastern boundary of Erode district is formed by river Cauvery, entering the district from Salem and flowing in a southern direction.

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: Vellode Bird Sanctuary supports a rich diversity of floral and faunal species. The biodiversity of the Vellode Bird Sanctuary can be summarized as follows: (a) 148 bird species, (b) 5 mammals, (c) 12 fishes, (d) 7 amphibians, (e) 11 reptiles, (f) 27 butterflies and other invertebrates, (g) 5 surface-dwelling invertebrates, and (h) 146 plant species. The majority of the above-mentioned species are representatives of the biogeographic region and depend significantly on the wetland to complete their life cycles.

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers: 21000

Start year: 2011

Source of data: Tamil Nadu Forest Department Census

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA / MAGNOLIOPSIDA	*Cayratia pedata*	☑	☑	☐	VU	☐	Listed Vulnerable under IUCN and available in the India Biodiversity Portal	Has a wider use for different ailments due to its high medicinal value. Pharmacognostical profile has been generated from macroscopical analysis, studies, powder analysis, physico-chemical constituent values, fluorescence analysis and preliminary phytochemical evaluation. The antibacterial activity of this plant confirms the therapeutic power.
TRACHEOPHYTA / LILIOPSIDA	*Commelina tricolor*	☑	☑	☐	VU	☐	Vulnerable	Wide and diverse uses but vulnerable
TRACHEOPHYTA / MAGNOLIOPSIDA	*Tephrosia purpurea*	☑	☑	☐	EN	☐	Endangered	An indigenous species, serving as roosting vegetation for the visiting birds Strong positive correlation exists with the vegetation structure of the site and the bird diversity Used by local communities as cattle feed, manure, fish poison, as well as in ethnomedicine

Cayratia pedata var. glabra belongs to the family Vitaceae, commonly known as “Kattuppirandai” is an endemic and endangered climbing plant mostly found in Thaisholai, Nilgiris South Division, Western Ghats and endemic to certain parts of the State. Sholas constitute high biodiversity areas, that houses many endemic, endangered, and rare species of flora and fauna. Todas, a tribal community lives in the pockets of Western Ghats of Tamil Nadu, inhabiting Thiashola. With the patronage of veteran ethnic group traditional knowledge, the species C. pedata var. glabra was selected for the pharmacognostical examination and antibacterial screening since this species is listed as endangered in the Red data book as per the IUCN red categories. This has a wider use for diverse ailments among the Toda tribes due to its augment medicinal value. The species is of high medicinal value, widely uses for different ailments. Pharmacognostical profile was generated from macroscopical analysis and studies, powder analysis, physico-chemical constituent values, fluorescence analysis and preliminary phytochemical evaluation. The antibacterial activity of this plant confirmed the therapeutic power. [Source: Sharmila, S., Kalaichelvi, K., Dhivya, S. M.., Premamalini, P., Abirami, P and Jayanthi, G (2017) Pharmacognostic Assesment of the Endemic and Vulnerable Medicinal Climber-Cayratia pedata (Lam.) Gagnep. var. glabra Gamble and Its Antibacterial Activity. Pharmacognosy Res; 9(Suppl.1): S27–S33. doi: 10.4103/pr.pr_25_17; PMCID: PMC5757322; PMID: 29333039]

Commelina tricolor is a perennial herb belonging to Commelinaceae. This species is classified as Vulnerable in the data base sighted below. This is used widely in the traditional medicine systems where different preparations are made for treat ailments like leprosy, sore throat, burns, pain and inflammation. http://bsienvis.nic.in/Database/E_3942.aspx.

Tephrosia purpurea (Common name-Tephrosia; Local name-Kavali), belongs to family Fabaceae and is an Indigenous species found in India, mostly in poor soils. It is used as fish poison and as cattle feed and manure. It is also used in ethnomedicine.

A large-scale plantation of Acacia nilotica by the Forest Department marks the site, as it is the most predominant species currently, the canopy serving as nesting sites. The bird diversity is strongly positively correlated to the vegetation structure of the site.

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								
Birds																	
CHORDATA / AVES	*Actitis hypoleucos*	☐	☐	☐	☐	☐	☑	☐	☐	1200	2018		LC	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Anas clypeata*	☐	☐	☐	☐	☐	☑	☐	☐	2700	2018			☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Anhinga melanogaster*	☐	☐	☐	☐	☐	☑	☐	☐	700	2018		NT	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Apus nipalensis*	☐	☐	☐	☐	☐	☑	☐	☐	1800	2018		LC	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Ardea cinerea*	☐	☐	☐	☐	☐	☑	☐	☐	1100	2018		LC	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Mycteria leucocephala*	☐	☐	☐	☐	☐	☑	☐	☐	4000	2018		NT	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Pelecanus philippensis*	☐	☐	☐	☐	☐	☑	☐	☐	1700	2019		NT	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.
CHORDATA / AVES	*Sterna aurantia*	☑	☐	☐	☐	☑	☑	☐	☐	3600	2018		VU	☐	☑	Schedule I of the Indian Wildlife Protection Act 1972	Highly protected species (under the said Act) because of ecological significance and declining population Breeding has been recorded in the site
CHORDATA / AVES	*Threskiornis melanocephalus*	☐	☐	☐	☐	☐	☑	☐	☐	4200	2018		NT	☐	☐		This species is recorded in high numbers in this wetland, being a part of the Central Asian Flyway and therefore, contributes to more than 20000 waterbird population.

1) Percentage of the total biogeographic population at the site

River Tern: This is classified as Vulnerable species as per IUCN category and is spotted in Vellode Bird Sanctuary, and breeds here too, although the numbers are showing declining trends.

Black Headed Ibis, Oriental Darter and Painted Stork: All these water birds are Near Threatened species and is found to visit Vellode and breed during the migratory period. Spot-billed Pelican: A maximum of 80-90.

Spot-billed Pelicans reportedly breeds here, accounting for 1.5% of occurrence.

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

Vellode Bird Sanctuary (VBS) is situated in Vadamugam Vellode village, Erode district, located about 12 km from Erode along Chinnamalai main road. Spreading across 77.185 ha, It is an important staging and breeding ground for resident as well as migratory birds. The site is an ideal habitat for birds, due to availability of abundant aquatic feed in the wetalnd, neighbouring agricultural fields and other aquatic organisms. The main habitat consists of planted Acacia nilotica trees occupying 20 hectares. About 8 hectares consist of the alien invasive species (AIS), Prosopis juliflora. Water liliy and other floating plants occupy about 3 hectares. A mix of grassland and barren land occupies another 10 hectares. Water logged area accounts for 35 ha. Building interpretation centre, watch tower and garden forms the last 2-ha area. The biodiversity of the VBS is composed of 148 birds, 5 mammals, 12 fishes, 7 amphibians, 11 reptiles, 27 butterflies, other invertebrates and 146 plants. The 146 species of flora belong to the families of Amaranthaceae, Acanthaceae, Poacea, Fabaceae and Euphorbiaceae. To name a few, Acacia nilotica, Azadiracta indica, Palmyrah trees and many frugivorous trees are primary vegetation present in the site where the birds perch and roost. In addition, the wetalnd supports phytoplanktons and macrophytes. Increasing nutrients from anthropogenic discharge stimulate the growth of phytoplanktons. It offers an important food source for larval fishes and other crustaceans in natural water. Phytoplanktons belong to cyanophyceae, Chlorophyceae and Bacillariophyceae families. A 2015 study showed a total of 98 bird species belonging to 84 genera, 47 families and 16 orders. Of these, terrestrial birds represented 59 species of 54 genera & 34 families, water birds constituted 39 species of 30 genera & 13 families. Out of the 47 families, Ardeidae (8 species-herons & egrets) constituted most dominant family. Of the total 98 bird species, 81 are residents and 19 migrants. The presence of agriculture field around the ponds provides good feed for birds especially for glossy ibis, little egret, black headed ibis etc. Other noteworthy avifauna include open billed stock, oriental darter, Spot billed pelican, Indian coot, painted stork, flamingos, grey heron, garganey, Shoveler, red wattled lapwing, plover & Brahminy kite. The livelihoods of the local communities is intrinsically linked to the wetland. The surrounding area has drinking water supply from Panchayat board and bore wells for their regular needs and the wetland water is used for irrigation. In addition, Indian Lotus planting and cultivation is another important economic activity. Further, being a feeding and breeding ground for birds, it supports some of the key migratory bird flyways. Fishing activity is permitted inside the wetland. The wetland plays the primary role of buffering by acting as a sponge during events of floods and extreme rainfall. It is a major source of ground water recharge. No mining of sand or silt is undertaken in this wetland.
VBS, a man-made tank was created primarily for the purpose of irrigation. Apart from supporting resident &migratory birds during nesting, the site is surrounded by agricultural fields, rural and urban settlements forms an important bird habitat, and also supports number of mollusks, fishes, reptiles, amphibians etc.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Lakes and pools >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils	Periakulam Yeri	0		

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	Periakulam Yeri	1	77.185

(ECD) Habitat connectivity	Runoff from catchment; acts as sediment sink; supports agriculture& fishes; dependent local population; only perennial water source; receives water from LBP canal& NE monsoon; conversion to system tank will overcome uncertainty in water availability

4.3 - Biological components

4.3.1 - Plant species

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	*Prosopis juliflora*	Actual (major impacts)

Optional text box to provide further information

The introduction of this invasive species to address erosion problems, has turned this into an invader species. It has started off invading the river banks and slowly extended to the agricultural lands, as well as adjacent dryland areas. The negative impacts of this species are that its rapid spread has a bearing on the Ecosystem Services. Despite partially the invasion offsets by provisioning of firewood and charcoal needs of the local communities, there is difficulty in controlling its rapid growth as the threats to Ecosystems Service, people's livelihoods and lifestyles exceed the benefits it may offer.

Since the negative impacts of this invasive species may far exceed the benefits, the solution would be to have an integrated research approach that considers both services and disservices among different groups, so that it may be addressed appropriately and solutions could be identified for suitable action.

4.3.2 - Animal species

Invasive alien animal species

Phylum	Scientific name	Impacts
CHORDATA/ACTINOPTERYGII	*Cyprinus carpio*	Actual (major impacts)
CHORDATA/ACTINOPTERYGII	*Hypophthalmichthys molitrix*	Actual (major impacts)

Optional text box to provide further information

The presence of carp makes the water more turbid, increases the algal blooms, resulting in decreased growth of aquatic macrophytes. Excess nutrients entering the wetland and the feeding habits of the carp result in suspension of sediment and nutrients. The nutrients fuel the algal blooms, which reduce the water quality and ultimately eliminates the submerged aquatic vegetation. With the loss of submerged vegetation, the water quality continues to deteriorate and fish species and quality declines.

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Aw: Tropical savanna (Winter dry season)

The area experiences tropical-type climate. March to June are the hottest months. It receives rainfall mainly during the northeast monsoon between Sep-Dec, while the period between Feb-June generally remains dry. The annual rainfall ranges from 575 mm to about 833 mm.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 140

a) Maximum elevation above sea level (in metres): 160

- 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.

Northern part of the Vellode Bird Sanctuary Starts from Lower Bhavani Project main canal in the S.F. numbers 572 the boundary runs towards east along the southern boundary of S.F.No.575, 580, 581, 582 and 583 to meet S.F.No.110 of Pungambadi village border. Thence, the boundary runs towards south, north-east along with the southern border of S.F.No.381 to meet the starting point.

The Lower Bhavani Project Canal is a 201-kilometre (125 mi) long irrigation canal, and is a branch of Bhavani river, which runs in Erode district in Tamil Nadu, India. The canal is a valley-side contour canal, fed by Bhavanisagar Dam and irrigates 2.07 lakh hectares of land. The main canal feeds Thadapalli and Arakkankottai channels which irrigate the cultivable lands. The canal was the brainchild M.A Eswaran, member of the legislative assembly of the Erode constituency in the early 1950s.

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	☑	No change
Water inputs from groundwater	☑	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:

There is no perennial water source in the Vellode Bird Sanctuary. It is a storage tank which is used to hold water for irrigating the adjoining agricultural fields. This tank receives water through the seepage from the Lower Bhavani Project canal system (the outlet of Lower Bhavani Dam) and through rain water from north east monsoon. There is no provision for inflow of water from the above Canal. However, some water is retained even during dry period in the deeper portions of the lake. Since this tank is mainly a rainfed one and a non-system tank, efforts have to be made to convert this into a system tank to overcome the uncertainty in availability of water by creating a permanent water source from the nearby LBP canal which will make a huge difference in protection of VBS wetland complex.

(ECD) Connectivity of surface waters and of groundwater	Water from rainfall and help in replenishing the groundwater

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 ☐

(ECD) Water turbidity and colour	Water colour is brownish green; turbidity not measured
(ECD) Water temperature	Average temperature of water not known

4.4.6 - Water pH

- Acid (pH<5.5) ☐
- Circumneutral (pH: 5.5-7.4) ☐
- Alkaline (pH>7.4) ☐
- Unknown ☑

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:

Vellode Bird Sanctuary is located in the Vadamugam Vellode Village of the Perundurai Taluk, located in the Erode District. It comes under the jurisdiction of the Tamil Nadu Forest Department and located about 12 km from Erode along Chinnamalai main road. Villages that surround the sanctuary include Vadamugam Vellode, Pungambadi and Thenmugam Vellode village of Perundurai Taluk on the eastern side. Western side boundary runs along Odai-Poramboke that eventually meets the Lowe Bhavani Project Canal. The northern side has the Lower Bhavani Project main canal running towards east along the southern boundary of Pungambadi village. The six villages around the site are Karukkangattu valasu, Vellode Mettupalayam, Thalaikattur, Sellapampalayam, Semmandapalayam and Thatchangarai Vazhi. The population is dependent on agriculture and fishing.

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

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
Hazard reduction	Flood control, flood storage	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

Supporting Services

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

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

Within the tank limit, there is an old Karupparayan temple which is considered sacred by the local communities. They organize annual festivals in the temple for their belief seeking good monsoon that fills up the surrounding water bodies to support their farming activities. The farmers in the fringe areas are happy because the farmers feel that their crop yields are better after the arrival of large number of birds in the tank because of the irrigation water getting enriched due to the droppings of birds.

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

Description if applicable

There is a significant runoff from the surrounding catchment area and the wetland acts as a sink for sediments. According to the local population, there has been reduction in the depth of the wetland over a period of time. The vicinity of the wetland has an old Karupparayan temple which is considered sanctity by the local communities. They organize annual festivals in the temple for their belief seeking good monsoon that fills up the surrounding water bodies to support their farming activities. Cultural activities happen during festival times. The wetland supports agriculture and fishes. The local population is dependent on the wetalnd for irrigation and the wetland also provides a suitable habitat for birds both resident and migratory. No mining for sand or silt is undertaken.

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

Description if applicable

As mentioned above, the local population are engaged in agricultural activities, and so are dependent completely on the sanctuary for irrigation and livestock purposes.

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

A few cultural activities are organized around Vellode during specific festivals near the Karupparayan Temple.

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	☑	☑
Local authority, municipality, (sub)district, etc.	☑	☑

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

Vellode is locally known as Periakulam Eri. It was declared as Bird Sanctuary under Section 26 (1) of Wildlife Protection Act 1972 (Central Act 53 of 1972) in G.O.Ms.No.44, Environment and Forests (FR V) Department dated 29.02.2000 and became a Bird Sanctuary with effect from the date of publication 22.03.2000 in Tamil Nadu Gazette.

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, Erode District

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

Thiru.S.Gowtham, I.F.S., District Forest Officer, Erode

Postal address:

O/o The District Forest Officer
Erode Forest Division
Roja Nagar,
Veerappan Chatiram (Po)
Erode -638004, Tamil Nadu

E-mail address: dmuerd@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		☐	☑

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Medium impact		☐	☑
Water abstraction	Medium impact		☐	☑
Salinisation	Medium impact		☐	☑
Water releases	Medium impact		☐	☑

Agriculture and aquaculture

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

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		☐	☑

Human intrusions and disturbance

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

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Vegetation clearance/ land conversion	Medium impact		☐	☑

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		☑	☑

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	Medium impact		☐	☑
Agricultural and forestry effluents	Medium impact		☐	☑
Garbage and solid waste	Medium impact		☐	☑

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	Medium impact		☑	☑
Droughts	Medium impact		☑	☑
Temperature extremes	Medium impact		☑	☑
Storms and flooding	Medium impact		☑	☑

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
A bird Sanctuary (Protected Area) notified under Wild Life Protection Act 1972 (Central Act 53,1972) in G.O.Ms.No.44, Env.& Forests (FRV) Dept., dtd.29.2.2000 w.e.f date of publication on 23.3.2000 in Tamil Nadu Gazette	Vellode Bird Sanctuary	http://www.wiienvis.nic.in/Database/Tamil_Nadu_7838.aspx	whole
Comes under the Indian Wildlife Protection Act, 1972	Vellode Bird Sanctuary	https://legislative.gov.in/sites/default/files/A1972-53_0.pdf	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 ☐

<no data available>

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	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 ◉

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

Under the flagship project of Govt. of Tamil Nadu a number of habitat improvement and management works are carried out in VBS. Eco-tourism is also being developed with facilities like Interpretation Center (IC), mini theatre, awareness and information boards, bird watching programs, visitor amenities and nature trails and Eco-education programs for students. Physical facilities for wetland IC would comprise of actual field (nature trails, birds watching platforms/ towers) and indoor interpretation facilities (models, picture and written and vocal information and indoor programs. Graphics and signages would play an important role in indoor programs. Expert services for both outdoor and indoor interpretation would be made available to the visitors through trained personnel at the Reserve and biologists. Number of nature enthusiasts and tourists are seen rising since then and more importance is being given for awareness creation combined with recreational facilities.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

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

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

• Ali. Salim 2002 (13th Ed.) The Book of Indian Birds. Bombay Natural History Society. Oxford Press.354 pp.
• Bilgrami, K.S. 1995. Concept and Conservation of Biodiversity. CBS Publishers and distributors, Delhi.
• Grimmett Richard, Carol Inskipp and Tim Inskipp. 2014. Birds of the Indian Subcontinent. Oxford University Press.528 pp.
• Hammer, Ø, Harper, D.A.T., Ryan, P.D.2001, PAST: Palaeontological Statistics software package for education and data analysis, Palaeontologia Electronica 4(1): 9 pp.
• Harisha,M.N. and Hosetti, B.B. 2009.Diversity and distribution of avifauna of Lakkavalli range forest, Bhadra wildlife sanctuary, Western Ghat, India. ECOPRINT 16: 21-27.
• Ludwig, J. A. and Reynolds,J. F.1998.Statistical Ecology - A primer on methods and computing, 90 – 92.
• Manakadan Ranjit and Asheesh Pittie 2001.Standardised common and scientific names of the birds of the Indian Subcontinent.Buceros Vol. 6 (1): 48pp.
• Pramod, P., R.J.R. Daniels, N.V. Joshi and M. Gadgil. 1997. Evaluating bird communities of Western Ghats to plan for a biodiversity friendly development. Current Science, 78:156-162.
• Robertson, H.A. and K.R. Hackwell. 1995. Habitat preferences of birds in seral kahikatea Dacrycarpusdacrydioides (Podocarpaceae) forest of South Westland, New Zealand. Biological Conservation, 71:275-280.
• Salim Javed and Rahul Kaul. 2002. Field Methods for Bird Surveys. Indian Bird Conservation Network, Bombay Natural History Society.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<1 file(s) uploaded>

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 Vellode Bird Sanctuary (*Tamil Nadu State Wetland Authority, 10-10-2022*)

Panoramic view of Vellode Bird Sanctuary (*Tamil Nadu State Wetland Authority, 10-10-2021*)

Nesting grounds (*Tamil Nadu State Wetland Authority, 10-10-2021*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2022-04-08