

3.65. KAZHUVELI WETLAND

- ❖ **State / Union Territory:** Tamil Nadu
- ❖ **Name and address of person (s) compiling this information:**
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Section 1: Identification, Location and Jurisdiction

- 1.1 *Name of the Wetland:* Kazhuveli Bird Sanctuary
- 1.2 *Name of the Village (s), Tehsil (s), Municipal area (s):* Marakkanam, Vanur, Nadukuppam, Seyyankuppam, Chettikuppam, Anumandai, Urani, Keelputhupattu, Koonimedu, Thiruakkanur
- 1.3 *Name of the District (s) in which Wetlands complex located:* Viluppuram
- 1.4 *Geographical coordinates:*
 - ▶ Latitude: 12°7'24.888" N
 - ▶ Longitude: 79°52'45.102" E
- 1.5 *Name of the Department/ Agency which has jurisdiction over Wetland/ Wetland complex:* Forest Department

Section 2: Site Characteristics

- 2.1 *Area of Wetland:* 9588.14 ha
- 2.2 *Wetland type:*

Category	Subcategory
Natural (Inland)	☐ Permanent lakes ☐ Seasonal/ intermittent lakes ☐ Permanent streams/ creeks ☐ Seasonal/ intermittent streams/ creeks ☐ Oxbow ☐ River floodplain ☐ Permanent freshwater marshes ☐ Seasonal/ intermittent freshwater marshes ☐ Shrub-dominated Wetlands ☐ Tree-dominated Wetlands ☐ Geothermal Wetlands

	☐ Karst and other subterranean hydrological systems
☒ Natural (Coastal)	☐ Coastal lagoon ☐ Estuary ☐ Intertidal mud, sand or salt flats ☒ Mangroves ☐ Coral reefs
☐ Human-made	☐ Aquaculture pond ☐ Tank ☐ Saltpan ☐ Dam/ Reservoir

2.3 *Depth (m):* Average - 1.5; Maximum - 3.5

2.4 *Elevation (m above mean sea level):* 21

2.5 *Water regimes*

a) Main source of water

- ☒ Rainfall inflow from river
- ☐ Groundwater
- ☒ Catchment runoff
- ☐ Direct/ indirect inflow from river
- ☒ Others, please specify: Buckingham Canal is one of the sources of water
- ☐ Name of River/ Canal System

b) Water performance

- ☐ Mostly permanent
- ☒ Mostly intermittent

c) Destination of water from Wetland

- ☒ Feeds groundwater river to sea
- ☐ To downstream catchment

d) Water pH

- ☐ Acid (< 5.5)
- ☐ Circumneutral (5.5-7.4)
- ☒ Alkaline (> 7.4)

e) Water salinity

- ☐ Fresh (< 0.5 g/l)
- ☒ Brackish (0.5-30 g/l)
- ☐ Euhaline (30-40 g/l)
- ☐ Hypersaline (> 40 g/l)
- ☐ Not known

- f) Nutrients in water
- ☐ Eutrophic
 - ☒ Mesotrophic
 - ☐ Oligotrophic
 - ☐ Not known

2.6 *Climatic setting*

a) Annual rainfall/ Snowfall (mm): 252.7

b) Temperature (°C) Minimum 26.1 ; Maximum 38.2

c) Humidity (%) Minimum 63.2 ; Maximum 70.2

2.7 *Area of zone of influence (in ha):* 25501.31 ha (with an irregular radius of 1.12 km)

2.8 *Major land use within zone of influence*

Land Use	Percentage
Forest	: 0%
Vegetation (Plantation)	: 1%
Agriculture	: 33%
Settlements (Rural)	: 47%
Settlements (Urban)	: 0%
Industrial	: 0%
Waterbody	: 13%
Beach	: 2%
Aquaculture	: 4%

2.9 *Map of Wetland complex and zone of influence:* Enclosed as Annexure 65 (Fig. 3.65.1-3.65.2)

Section 3: Biodiversity

3.1 *Notable plant species present in Wetland:* The Wetland is home to a diverse range of plant species, totaling 64 species. This includes 8 tree species, 7 shrub species, 35 herb and sedge species, 6 climbers, and 8 types of grasses (refer to Table 3.65.1 in Annexure 3.65).

3.2 *Notable animal species present in Wetland:* The Wetland supports a variety of animal species, with a total of 159 recorded species. This includes 3 mammal species, 21 reptile species, 9 amphibian species, 144 bird species, and 12 species of butterflies (refer to Table 3.65.2-3.65.3 in Annexure 3.65).

3.3 *Species of conservation significance:* Highlighted in Table 3.65.1-3.65.3

3.4 *Major plant invasive alien species:* The Wetland supports 6 plant invasive species (refer to Table 3.65.4 in Annexure 3.65).

3.5 *Major animal invasive alien species:* Not Available

Section 4: Ecosystem Services

Importance	Relevance	Details
Source of drinking water for people living and around	☐ Yes ☒ No	
Source of water for agriculture	☒ Yes ☐ No	Water has been drawn from outflow for agricultural activities
Fisheries	☒ Yes ☐ No	Communal fishing activity is happening
Cultivation of aquatic food plants	☐ Yes ☒ No	
For buffalo wallowing and use of domesticated animals	☐ Yes ☒ No	
Medicinal plants	☒ Yes ☐ No	Few Medicinal plants around the Wetland.
Is a recreational site	☐ Yes ☒ No	
Buffering communities from extreme events as floods and storms	☐ Yes ☒ No	
Groundwater recharge	☒ Yes ☐ No	Major source of ground water recharge
Water purification	☐ Yes ☒ No	
Acts as a sink for sediments	☐ Yes ☒ No	
Has significant cultural and religious values	☐ Yes ☒ No	
Is a site for recreation and tourism	☐ Yes ☒ No	
Supports noteworthy plant species	☐ Yes ☒ No	
Support noteworthy animal species	☐ Yes ☒ No	
Site of high congregation of migratory water birds	☒ Yes ☐ No	Provides a suitable site for the high congregation of migratory water birds.

Supports life cycle of fish or amphibians	☒ Yes ☐ No	Almost 9 variety of amphibians were surviving
Mining	☐ Yes ☒ No	
Aquaculture activities	☒ Yes ☐ No	Aquaculture ponds has identified while field visit

Section 5: Pre-Existing Rights and Privileges

Nature of right and privilege	Relevant for the site	Does this negatively impact the Wetland's ecological health?	Brief description
Community Fishing (without any lease or permission from government department)	☒ Yes ☐ No	☐ Yes ☐ No ☒ Not assessed	Illegal communal fishing activity
Fishing under lease from government department	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Harvest of plants (without any lease or permission from government department)	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Harvest of plants under lease from government department	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Agriculture or horticulture within Wetland	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	Water has been drawn from outflow for agricultural activities
Grazing	☒ Yes ☐ No	☐ Yes ☐ No ☒ Not assessed	Grazing activity is done by cattle
Religious practices	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Withdrawal of water for domestic use	☐ Yes ☒ No	☐ Yes ☐ No	

		☐ Not assessed	
Withdrawal of water for agriculture or fisheries	☒ Yes ☐ No	☐ Yes ☐ No ☒ Not assessed	Grazing activity is done by cattle
Bathing or wallowing of domestic animals	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Plying of boats	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	
Any other	☐ Yes ☒ No	☐ Yes ☐ No ☐ Not assessed	

Section 6: Present and Potential Threats

Threat	Degree	Present/ Potential	Additional info.
Changes in water inflow and outflow	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Pollution	☐ High ☐ Medium ☒ Low	☐ Present ☒ Potential	Solid waste and plastic dumping
Unsustainable harvest of biological resources	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Mining	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Siltation	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	
Encroachment	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	

Spread of invasive species	☐ High ☐ Medium ☒ Low	☒ Present ☐ Potential	Listed in Table 3.65.4-3.65.5 in Annexure 3.65
Any other, please list	☐ High ☐ Medium ☐ Low	☐ Present ☐ Potential	

Section 7: Activities Proposed to Be Prohibited (other than those listed in Rule 4 (2) of Wetlands Rules and Regulated)

Activity	Whether prohibited or regulated	Regulation within Wetlands zone of influence	If regulated indicates the level of regulation	Name of department/ agency responsible for regulation/ prohibition	Additional info.
Withdrawal of water / impoundment/diversion or any other hydrological intervention		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Harvesting of resources (living / non-living)		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Grazing	Regulated	☒ Wetland/ Wetland complex boundary ☐ Zone of influence	Upto the boundary of Wetland		
Discharge of treated sewage/ effluent / wastewater		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			

Construction of boat jetties, and facilities for temporary use, as pantoon bridges		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			
Aquaculture, agriculture and horticulture activities within the Wetland boundaries.		☐ Wetland/ Wetland complex boundar ☐ Zone of influence			
Any other, please list		☐ Wetland/ Wetland complex boundary ☐ Zone of influence			

Section 8: Activities Proposed to be permitted

Activity	Relevance	Within Wetlands or zone of influence	Additional info.
Withdrawal of water for agriculture		☐ Wetland/ Wetlands complex boundary ☒ Zone of influence	May permitted, since the surrounding area is rich in agriculture

Section 9: Listing of Available Scientific Resources Used

1. Ahmad, N. (1980). Some aspects of economic resources of Sunderbans mangrove forests of Bangladesh. In P. Soepadmo (Ed.), *Mangrove environment: Research and management* (pp. 50-51). Report on UNESCO Asian Symposium, held at University of Malaya, Kuala Lumpur, Malaysia, 25-29 August 1980.
2. Anonymous. (1991). *India 1990: A reference annual*. Research and Reference Division, Ministry of Information and Broadcasting, Govt. of India.
3. Anonymous. (1993). *Directory of Indian Wetlands*. World Wildlife Federation.
4. Anonymous. (1994). *World development report*. World Bank.
5. Bhardwaj, R., Badola, R., & Rathore, B. M. (Eds.). (2000). Conserving Wetlands: Emerging scenario. In *Proceedings of the workshop on the 'Conserving biodiversity in*

the 21st century, through integrated conservation and development planning on a regional scale' (pp. 131-138). LBSNA Mussoorie & WII Dehradun.

6. Chopra, R. (1985). *The state of India's environment*. Ambassador Press.
7. Choudhury, B. C. (2000). Conserving Wetlands: Emerging scenario. In R. Bhardwaj, R. Badola, & B. M. Rathore (Eds.), *Proceedings of the workshop on the 'Conserving biodiversity in the 21st century, through integrated conservation and development planning on a regional scale'* (pp. 131-138). LBSNA Mussoorie & WII Dehradun.
8. Das, S., Behera, S. C., Kar, A., Narendra, P., & Guha, S. (1997). Hydrogeomorphological mapping in groundwater exploration using remotely sensed data – A case study in Keonjhar District, Orissa. *Journal of the Indian Society of Remote Sensing*, 25, 247-250.
9. Das, K. K., Prasad, S. N., Roy, P. S., & Bhan, S. K. (1994). Mapping of potential crane habitat in Etawah and Mainpuri districts (U.P.) using satellite remote sensing techniques. A project report. Indian Institute of Remote Sensing, Dehradun & Salim Ali Centre for Ornithology and Natural History, Kalampalayam, Coimbatore.

ANNEXURE 3.65

Fig 3.65.1 Zone of Influence of Kazhuveli Bird Sanctuary

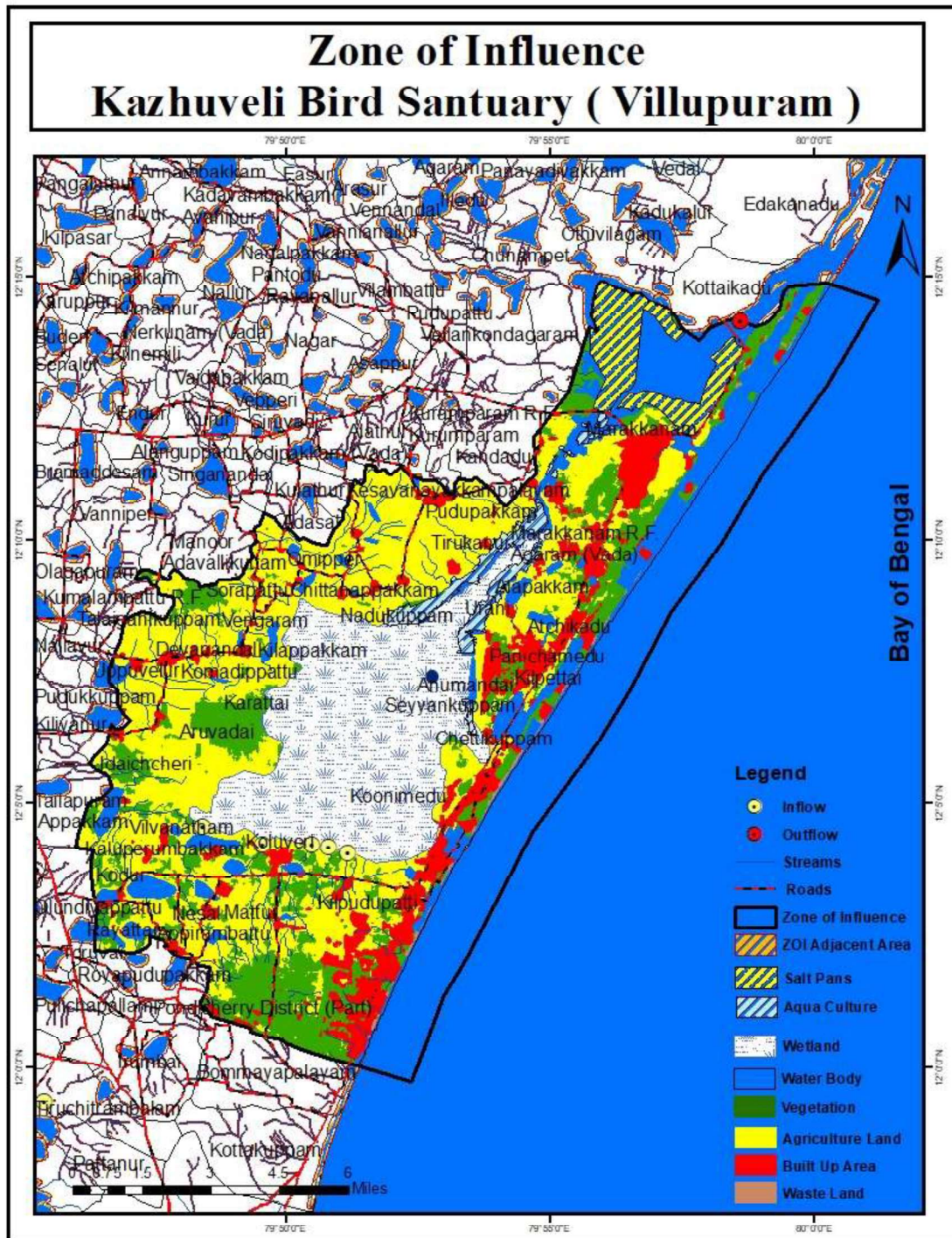


Fig. 3.65.2. Map (2004 vs. 2024) and Land Use/ Land Cover of Kazhuveli Bird Sanctuary

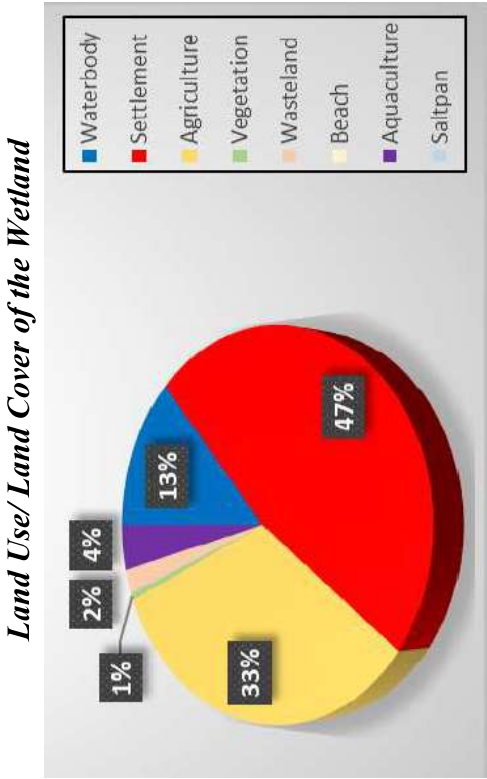


Table 3.65.1. IUCN Status of Floral Species in Kazhuveli Bird Sanctuary Wetland

S. No.	Species	Family	Tamil Name	Habit	IUCN
1.	<i>Abrus precatorius</i>	Fabaceae	Kundumani	Climber	NE
2.	<i>Abutilon indicum</i>	Malvaceae	Thuthi	Shrub	LC
3.	<i>Acalypha indica</i>	Euphorbiaceae	Kuppaimeni	Herb	NE
4.	<i>Acanthospermum hispidum</i>	Compositae		Herb	NE
5.	<i>Achyranthes aspera</i>	Amaranthaceae	Nayurivi	Herb	NE
6.	<i>Aerva lanata</i>	Amaranthaceae	Peelai, Sirupeelai	Herb	NE
7.	<i>Aeschynomene indica</i>	Fabaceae	Kothiram	Herb	NE
8.	<i>Aeluropus lagopoides</i>	Poaceae	Kadal Arugampullu	Grass	NE
9.	<i>Borassus flabellifer</i>	Areaceae	Panai	Tree	LC
10.	<i>Boerhavia diffusa</i>	Nyctaginaceae	Mookarattai	Herb	NE
11.	<i>Brachiaria mutica</i>	Poaceae		Grass	NE
12.	<i>Calotropis gigantea</i>	Asclepiadaceae	Erukku, Arkkam	Shrub	NE
13.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakotthan	Herb	NE
14.	<i>Chloris barbata</i>	Poaceae	Kodaipul	Grass	NE
15.	<i>Cleome viscosa</i>	Capparidaceae	Nai vaelai	Herb	NE
16.	<i>Corchorus capsularis</i>	Tiliaceae	Sanal	Herb	NE
17.	<i>Cynodon dactylon</i>	Poaceae	Aruhampul	Grass	NE
18.	<i>Cyperus alternifolius</i>	Cyperaceae		Sedge	NE
19.	<i>Cyperus squarrosus</i>	Cyperaceae		Sedge	NE
20.	<i>Datura metal</i>	Solanaceae	Karu Oomatthai	Herb	NE
21.	<i>Digitaria ciliaris</i>	Poaceae		Grass	NE
22.	<i>Emilia sonchifolia</i>	Astereceae	Muyalccevi	Herb	NE
23.	<i>Eragrostis viscosa</i>	Poaceae	-	Grass	LC
24.	<i>Geniosporum tenuiflorum</i>	Laminaceae	Nallathulasi	Herb	NE
25.	<i>Gisekia pharnaceoides</i>	Gisekiaceae	Kolikkirai	Herb	NE
26.	<i>Glinus lotoides</i>	Molluginaceae	Cerupattai	Herb	NE
27.	<i>Glinus oppositifolius</i>	Molluginaceae	Thurapundu	Herb	NE
28.	<i>Heliotropium</i>	Boraginaceae		Herb	LC

	<i>curassavicum</i>				
29.	<i>Ipomoea carnea</i>	Convolvulaceae		Shrub	NE
30.	<i>Ipomoea pes-caprae</i>	Convolvulaceae	Attukkal	Climber	LC
31.	<i>Ischaemum indicum</i>	Poaceae	-	Grass	LC
32.	<i>Jatropha gossypifolia</i>	Euphorbiaceae	Kaatu-amanakku	Shrub	NE
33.	<i>Justicia prostrata</i>	Acanthaceae		Herb	NE
34.	<i>Launaea bellidifolia</i>	Asteraceae		Herb	LC
35.	<i>Lantana camara</i>	Verbenaceae	Unnichedi	Shrub	LC
36.	<i>Lepisanthes tetraphylla</i>	Sapindaceae	Neykkoddaan	Tree	LC
37.	<i>Martynia annua</i>	Martyniaceae	Thael Kodukku	Herb	NE
38.	<i>Mollugo cerviana</i>	Molluginaceae	Parpaadagam	Herb	NE
39.	<i>Mukia leiosperma</i>	Cucurbitaceae		Climber	NE
40.	<i>Parthenium hysterophorus</i>	Compositae	Vishachedi	Herb	LC
41.	<i>Passiflora foetida</i>	Passifloraceae	Poonaipidukku	Climber	NE
42.	<i>Pedaliium murex</i>	Pedaliaceae		Herb	NE
43.	<i>Phyllanthus reticulatus</i>	Euphorbiaceae	Inki pazham	Shrub	LC
44.	<i>Prosopis cineraria</i>	Fabaceae	Vani	Tree	LC
45.	<i>Prosopis julifera</i>	Fabaceae	Semai karuvel	Tree	LC
46.	<i>Salacia chinensis</i>	Celastraceae		Tree	LC
47.	<i>Salvadora persica</i>	Salvadaraceae	Peruvilla	Tree	LC
48.	<i>Salicornia brachiata</i>	Chenopodiaceae	Kattumari	Herb	LC
49.	<i>Senna occidentalis</i>	Caesalpiniaceae	Thagarai	Shrub	NE
50.	<i>Senna siamea</i>	Fabaceae		Tree	LC
51.	<i>Senna tora</i>	Caesalpiniaceae	Oosi thagarai	Herb	NE
52.	<i>Solanum trilobatum</i>	Solanaceae	Thoodhuvalai	Herb	NE
53.	<i>Spermacoce hispida</i>	Rubiaceae	Nathaichoori	Herb	NE
54.	<i>Sphaeranthus amaranthoides</i>	Compositae	Siva karandhai	Herb	LC
55.	<i>Suaeda maritime</i>	Amaranthaceae		Herb	LC
56.	<i>Tephrosia purpurea</i>	Fabaceae	Kozhinji	Herb	NE
57.	<i>Thespesia populnea</i>	Malvaceae	Poovarasu	Tree	LC
58.	<i>Tinospora cordifolia</i>	Menispermaceae	Seendhil	Climber	NE

59.	<i>Trachys muricata</i>	Poaceae	-	Grass	LC
60.	<i>Trianthema portulacastrum</i>	Aizoaceae		Herb	NE
61.	<i>Tridax procumbens</i>	Compositae	Vettukkaaya poondu	Herb	LC
62.	<i>Tylophora indica</i>	Asclepiadaceae	Naippalai	Climber	NE
63.	<i>Typha angustifolia</i>	Typhaceae	Sambu	Herb	LC
64.	<i>Xanthium indicum</i>	Compositae	Marul oomatham	Herb	LC

Table 3.65.2. IUCN Status of Selected Fauna Species in Kazhuveli Bird Sanctuary Wetland

S. No.	Scientific Name of the Species	Family	Common Name	IUCN	Present study
<i>A. Mammal</i>					
1.	<i>Macaca radiate</i>	Cercopithecidae	Bonnet macaque		*
2.	<i>Funambulus palmarum</i>	Sciuridae	Three-striped palm squirrel	LC	*
3.	<i>Bandicota bengalensis</i>	Muridae	Bandicoot	LC	
<i>B. Reptile</i>					
1.	<i>Calotes versicolor</i>	Agamidae	Garden lizard	LC	*
2.	<i>Sitana ponticeriana</i>	Agamidae	Fan-throated lizard	LC	*
3.	<i>Mabuya carinata</i>	Scincidae	Common skink	LC	*
4.	<i>Lygosoma punctate</i>	Scincidae	Garden skink	LC	
5.	<i>Lygosoma albopunctata</i>	Scincidae	White-spotted garden skink	LC	
6.	<i>Varanus bengalensis</i>	Varanidae	Indian monitor lizard	NT	
7.	<i>Hemidactylus brookii</i>	Gekkonidae	Spotted gecko	LC	
8.	<i>Hemidactylus triedrus</i>	Gekkonidae	Termite-hill gecko	LC	*
9.	<i>Hemidactylus frenatus</i>	Gekkonidae	House gecko	LC	
10.	<i>Hemidactylus leschenaultia</i>	Gekkonidae	Bark gecko	LC	

11.	<i>Ramphotyphlops braminus</i>	Typhlopidae	Blind snake	LC	
12.	<i>Amphiesma stolata</i>	Colubridae	Striped keel back	NE	
13.	<i>Atretium schistosum</i>	Colubridae	Olive keel back	LC	
14.	<i>Xenochrophis piscator</i>	Colubridae	Checkered keel back	LC	
15.	<i>Ptyas mucosus</i>	Colubridae	Rat snake	NE	*
16.	<i>Ahaetulla nasuta</i>	Colubridae	Green vine snake	LC	*
17.	<i>Naja naja</i>	Elapidae	Cobra	LC	
18.	<i>Bungarus caeruleus</i>	Elapidae	Krait	LC	
19.	<i>Vipera russelli</i>	Viperidae	Russell's viper	LC	*
20.	<i>Melanochelys trijuga</i>	Geoemydidae	Pond turtle	LC	*
21.	<i>Lissemys punctate</i>	Trionychidae	Falps shell	VU	
<i>C. Amphibian</i>					
1.	<i>Euphlyctis hexadactylus</i>	Agamidae	Indian pond frog	LC	*
2.	<i>Euphlyctis cynophlyctis</i>	Colubridae	Skipper	LC	*
3.	<i>Tomopterna rolandae</i>	Agamidae	Burrowing frog	LC	
4.	<i>Hoplobatrachus crassus</i>	Colubridae	Jerdon's bull frog	LC	
5.	<i>Limnonectes limnocharis</i>	Lacertidae	Paddy Field frog	LC	
6.	<i>Kaloula taprobanica</i>	Agamidae	Painted frog	LC	*
7.	<i>Ramanella variegata</i>	Elapidae	Marbled frog	LC	
8.	<i>Bufo melanostictus</i>	Bufonidae	Indian Toad	LC	*
9.	<i>Polypedates maculatus</i>		Common tree frog	LC	
<i>D. Butterfly</i>					
1.	Common crow	<i>Euploea core</i>	Nymphalidae	LC	*
2.	Common Emigrant	<i>Catopsilia pomona</i>	Pieridae	NE	*
3.	Common evening brown	<i>Melanitis leda</i>	Nymphalidae	LC	*

4.	Common grass yellow	<i>Eurema hecabe</i>	Pieridae	LC	*
5.	Common lime	<i>Papilio demoleus</i>	Papilionidae	NE	*
6.	Common Mormon	<i>Papilio polytes</i>	Papilionidae	NE	*
7.	Lemon pansy	<i>Junonia lemonias</i>	Nymphalidae	NE	*
8.	Mottled Emigrant	<i>Catopsilia pyranthe</i>	Pieridae	NE	*
9.	Pale Grass Blue	<i>Pseudozizeeria maha</i>	Lycaenidae	NE	*
10.	Peacock pansy	<i>Junonia almana</i>	Nymphalidae	LC	*
11.	Plain tiger	<i>Danaus chrysippus</i>	Nymphalidae	LC	*
12.	Tawny coster	<i>Acraea violae</i>	Nymphalidae	LC	*

LC – Least Concern; * - Yes

Table 3.65.3. IUCN Status of Bird Species in Kazhuvelli Bird Sanctuary Wetland

S. No.	Scientific Name of the Species	Common name	Habitat	IUCN	PS
1.	<i>Accipiter badius</i>	Shikra	T	LC	*
2.	<i>Acridotheres tristis</i>	Common Myna	T	LC	*
3.	<i>Acrocephalus dumetorum</i>	Blyth's Reed Warbler	T	LC	*
4.	<i>Alauda gulgula</i>	Oriental Skylark	T	LC	
5.	<i>Alcedo atthis</i>	Common Kingfisher	T	LC	*
6.	<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	A	LC	
7.	<i>Anas acuta</i>	Northeren Pintail	A	LC	
8.	<i>Anas clypeata</i>	Northern shoveler	A	LC	
9.	<i>Anas penelope</i>	Wigeon	A	LC	
10.	<i>Anas poecilorhyncha</i>	Spot-billed Duck	A	LC	
11.	<i>Anas querquedula</i>	Garganey	A	LC	
12.	<i>Anastomus oscitans</i>	Asian Openbill	A	LC	
13.	<i>Anthus richardi</i>	Richard's Pipit	D	LC	
14.	<i>Anthus rufulus</i>	Paddy-field Pipit	D	LC	*
15.	<i>Apus affinis</i>	House Swift	T	LC	
16.	<i>Ardea cinerea</i>	Grey Heron	A	LC	*
17.	<i>Ardea purpurea</i>	Purple Heron	A	LC	
18.	<i>Ardeola grayii</i>	Indian Pond Heron	A	LC	*

19.	<i>Artamus fuscus</i>	Ashy Woodswallow	T	LC	
20.	<i>Athene brama</i>	Spotted Owlet	T	LC	
21.	<i>Bubulcus ibis</i>	Cattle Egret	D	LC	*
22.	<i>Burhinus oedicephalus</i>	Eurasian Thick-knee	A	LC	
23.	<i>Burhinus recurvirostris</i>	Great Thick-knee	A	LC	
24.	<i>Casmerodius albus</i>	Great Egret	A	LC	
25.	<i>Ceryle rudis</i>	Pied Kingfisher	D	LC	*
26.	<i>Charadrius dubius</i>	Little Ringed Plover	A	LC	
27.	<i>Chlidonias hybridus</i>	Whiskered Tern	A	LC	
28.	<i>Chlidonias leucopterus</i>	White-winged Tern	A	LC	
29.	<i>Ciconia ciconia</i>	White Stork	A	LC	
30.	<i>Ciconia episcopus</i>	Woolly-necked Stork	A	LC	
31.	<i>Circus aeruginosus</i>	Eurasian Marsh Harrier	D	LC	
32.	<i>Circus macrourus</i>	Pallid Harrier	T	LC	
33.	<i>Circus melanoleucos</i>	Pied Harrier	T	LC	
34.	<i>Cisticola juncidis</i>	Zitting Cisticola	T	LC	
35.	<i>Clamator jacobinus</i>	Pied Cuckoo	T	LC	
36.	<i>Columba livia</i>	Rock Pigeon	T	LC	
37.	<i>Copsychus saularis</i>	Oriental Magpie Robin	T	LC	
38.	<i>Coracias benghalensis</i>	Indian Roller	T	LC	*
39.	<i>Corvus macrorhynchos</i>	Large-billed Crow	T	LC	*
40.	<i>Corvus splendens</i>	House Crow	T	LC	*
41.	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	T	LC	*
42.	<i>Dendrocitta vagabunda</i>	Rufous Treepie	T	LC	*
43.	<i>Dicrurus adsimilis</i>	Black Drongo	T	LC	*
44.	<i>Dinopium benghalense</i>	Black-rumped Flameback	T	LC	
45.	<i>Dupetor flavicollis</i>	Black Bittern	A	LC	
46.	<i>Egretta gularis</i>	Western reef heron	A	LC	
47.	<i>Egretta garzetta</i>	Little Egret	A	LC	*
48.	<i>Elanus caeruleus</i>	Black-shouldered Kite	T	LC	*
49.	<i>Ephippiorhynchus asiaticus</i>	Black Necked Stork	A	LC	

50.	<i>Eremopterix grisea</i>	Ashy-crowned Sparrow Lark	T	LC	
51.	<i>Eudynamys scolopacea</i>	Asian Koel	T	LC	*
52.	<i>Falco tinnunculus</i>	Common Kestrel	T	LC	
53.	<i>Francolinus pondicerianus</i>	Grey Francolin	T	LC	*
54.	<i>Fulica atra</i>	Coot	A	LC	
55.	<i>Gallicrex cinerea</i>	Watercock	A	LC	
56.	<i>Gallinula chloropus</i>	Common Moorhen	A	LC	*
57.	<i>Gelochelidon nilotica</i>	Gull-billed Tern	A	LC	
58.	<i>Glareola maldivarum</i>	Oriental Pratincole	A	LC	
59.	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	D	LC	*
60.	<i>Haliastur indus</i>	Brahminy Kite	T	LC	*
61.	<i>Hieraaetus pennatus</i>	Booted eagle	T	LC	
62.	<i>Hierococcyx varius</i>	Common Hawk Cuckoo	T	LC	
63.	<i>Himantopus himantopus</i>	Black-winged Stilt	A	LC	
64.	<i>Hirundo rustica</i>	Barn Swallow	T	LC	
65.	<i>Hirundo smithii</i>	Wire-tailed Swallow	T	LC	
66.	<i>Hydrophasianus chirurgus</i>	Pheasant-tailed Jacana	A	LC	
67.	<i>Ixobrychus cinnamomeus</i>	Cinnamon Bittern	A	LC	
68.	<i>Ixobrychus sinensis</i>	Yellow Bittern	A	LC	
69.	<i>Limosa limosa</i>	Black-tailed Godwit	A	LC	
70.	<i>Lonchura malacca</i>	Black-headed Munia	D	LC	
71.	<i>Merops orientalis</i>	Green Bee-eater	T	LC	*
72.	<i>Merops philippinus</i>	Blue-tailed Bee-eater	T	LC	
73.	<i>Mesophoyx intermedia</i>	Intermediate Egret	A	LC	
74.	<i>Milvus migrans</i>	Black Kite	T	LC	*
75.	<i>Motacilla flava</i>	Yellow Wagtail	D	LC	
76.	<i>Motacilla maderaspatensis</i>	White-browed Wagtail	T	LC	
77.	<i>Mycteria leucocephala</i>	Painted stork	A	LC	
78.	<i>Nectarinia lotenia</i>	Loten's Sunbird	T	LC	
79.	<i>Nycticorax nycticorax</i>	Black-crowned Night Heron	A	LC	

80.	<i>Oriolus oriolus</i>	Eurasean Golden Oriole	T	LC	
81.	<i>Orthotomus sutorius</i>	Common Tailorbird	T	LC	
82.	<i>Passer domesticus</i>	House Sparrow	T	LC	*
83.	<i>Pelecanus philippensis</i>	Spot-billed Pelican	A	LC	
84.	<i>Phalacrocorax carbo</i>	Great Cormorant	A	LC	
85.	<i>Phalacrocorax niger</i>	Little Cormorant	A	LC	*
86.	<i>Phalaropus lobatus</i>	Red-necked Phalarope	A	LC	
87.	<i>Phoenicopterus roseus</i>	Flamingo	A	LC	
88.	<i>Phoeniconaias minor</i>	Lesser Flamingo	A	NT	
89.	<i>Platalea leucorodia</i>	Spoonbill	A	LC	
90.	<i>Plegadis falcinellus</i>	Glossy Ibis	A	LC	*
91.	<i>Ploceus manyar</i>	Streaked Weaver	T	LC	
92.	<i>Pluvialis squatarola</i>	Grey Plover	A	LC	
93.	<i>Porphyrio porphyrio</i>	Purple Swamphen	A	LC	*
94.	<i>Prinia inornata</i>	Plain Prinia	T	LC	
95.	<i>Prinia socialis</i>	Ashy Prinia	T	LC	*
96.	<i>Psittacula krameri</i>	Rose-ringed Parakeet	T	LC	
97.	<i>Pycnonotus cafer</i>	Red-vented Bulbul	T	LC	
98.	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	T	LC	
99.	<i>Rostratula benghalensis</i>	Greater Painted-snipe	A	LC	
100.	<i>Saxicola caprata</i>	Pied Bush Chat	T	LC	*
101.	<i>Sterna aurantia</i>	River Tern	A	LC	
102.	<i>Streptopelia chinensis</i>	Spotted Dove	T	LC	*
103.	<i>Sturnus pagodarum</i>	Brahminy Starling	T	LC	
104.	<i>Tachybaptus ruficollis</i>	Little Grebe	A	LC	
105.	<i>Tadorna ferruginea</i>	Ruddy Shelduck	A	LC	
106.	<i>Threskiornis melanocephalus</i>	Black-headed Ibis	A	NT	*
107.	<i>Tringa glareola</i>	Wood Sandpiper	A	LC	*
108.	<i>Tringa stagnatilis</i>	Marsh Sandpiper	A	LC	*
109.	<i>Turdoides affinis</i>	Yellow-billed Babbler	T	LC	
110.	<i>Tyto alba</i>	Barn Owl	T	LC	

111.	<i>Upupa epops</i>	Hoopoe	T	LC	
112.	<i>Vanellus indicus</i>	Red-wattled Lapwing	D	LC	*
113.	<i>Vanellus malabaricus</i>	Yellow-wattled Lapwing	D	LC	
114.	<i>Zoothera citrina</i>	Orange-headed Thrush	T	LC	

LC – Least Concern; * - Yes; T – Terrestrial; A – Aquatic; D – Dry/ desert; NT – Near Threatened

Table 3.65.4. IUCN Status of major plant invasive alien species in Kazhuvveli Wetland

S. No.	Species	Family	Tamil Name
1.	<i>Alternanthera sessilis</i>	Amaranthaceae	Ponnanganni
2.	<i>Ipomoea carnea</i>	Convolvulaceae	
3.	<i>Lantana camara</i>	Verbenaceae	Unnichedi
4.	<i>Senna occidentalis</i>	Caesalpiniaceae	Thagarai
5.	<i>Prosopis julifera</i>	Fabaceae	Semai karuvel
6.	<i>Xanthium indicum</i>	Compositae	Marul oomatham

Table 65.5. IUCN Status of major medicinal plant species in Kazhuvveli Wetland

S.No	Species	Family	Tamil Name	Habit
1.	<i>Abrus precatorius</i>	Fabaceae	Kundumani	Climber
2.	<i>Abutilon indicum</i>	Malvaceae	Thuthi	Shrub
3.	<i>Acalypha indica</i>	Euphorbiaceae	Kuppaimeni	Herb
4.	<i>Acanthospermum hispidum</i>	Compositae		Herb
5.	<i>Achyranthes aspera</i>	Amaranthaceae	Nayurivi	Herb
6.	<i>Aerva lanata</i>	Amaranthaceae	Peelai	Herb
7.	<i>Borassus flabellifer</i>	Arecaceae	Panai	Tree
8.	<i>Cardiospermum halicacabum</i>	Sapindaceae	Mudakotthan	Herb
9.	<i>Cynodon dactylon</i>	Poaceae	Aruhampul	Grass
10.	<i>Datura metal</i>	Solanaceae	Karu Oomattai	Herb
11.	<i>Mukia leiosperma</i>	Cucurbitaceae		Climber
12.	<i>Solanum trilobatum</i>	Solanaceae	Thoodhuvalai	Herb
13.	<i>Tephrosia purpurea</i>	Fabaceae	Kozhinji	Herb
14.	<i>Tinospora cordifolia</i>	Menispermaceae	Seendhil	Climber
15.	<i>Tridax procumbens</i>	Compositae	Vettukkaaya-thazhai	Herb
16.	<i>Tylophora indica</i>	Asclepiadaceae	Naippalai	Climber

CHECK LIST

- ✓ Responsible agency has been clearly identified and details of contact person included
- ✓ Wetland/Wetlands complex boundary has been delineated using GIS and
firmed up by adequate ground truthing
- ✓ Wetland/Wetlands complex map has been provided at required scale
- ✓ Zone of influence has been delineated and included in Wetland map or a separate map
- ✓ Wetland zone of influence is sufficient to manage all activities
- ✓ Site's importance have been listed, and for major categories, justification provided
- ✓ Site's biodiversity values are listed, and for major categories, justification provided
- ✓ List of pre-existing rights and privileges provided
- ✓ Consistency or, inconsistency of pre-existing rights and privileges
indicated to be best of available knowledge
- ✓ Threats to site listed, and for major categories details provided
- ✓ Activities prohibited, beyond those already listed in Rule 4 (2) have been mentioned
- ✓ List of activities to be regulated within Wetlands and zone of influence is provided
- ✓ List of activities to be permitted is provided