Ramsar Information Sheet

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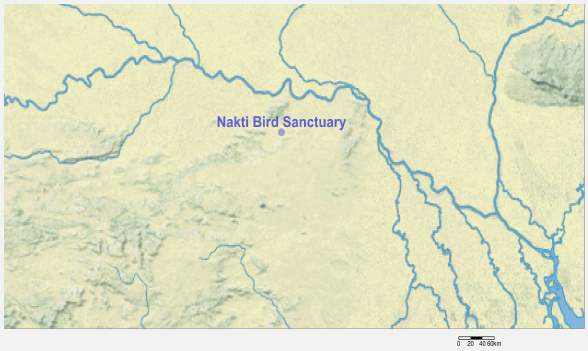
India

Nakti Bird Sanctuary



Designation date	11 October 2023
Site number	2546
Coordinates	24°50'50"N 86°26'50"E
Area	332,61 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Site is a man-made wetland formed after the construction of the Nakti Dam (about 300 hectares) on the Nakti River. It is an important habitat for migratory birds during the winter season and was declared as a Bird Sanctuary in 1984. It has also been designated as an Important Bird and Biodiversity Area (IBA) by the Birdlife International, fulfilling two IBA criteria related to waterbirds abundances. Located in the Jamui district of Bihar, the Site is 31 kilometres away from the Jamui Railway Station and 12 kilometres from the Jhajha railway station. The floodplains of this Site help in groundwater recharge. As a result, the mean depth of the water table increases in the post monsoon season, which helps to sustain the water demand of the local communities for agricultural and domestic activities. The Site also provides opportunities of educational, awareness and eco-tourism related activities, which includes bird watching.

The Site fulfils Criteria 2 (rare and threatened ecological communities) as it provides habitat to endangered species such as black bellied tern (Sterna acuticauda), and other rare species such as lesser adjutant stork (Leptoptilos javanicus), river tern (Sterna aurantia), darter (Anhinga melanogaster) and black-headed ibis (Threskiornis melanocephalus). It fulfils Criteria 3 (biological diversity) as it supports a rich biodiversity of over 75 species of birds, 15 species of macrophytes, 36 species of fishes, 18 species of reptiles, 3 species of amphibia and 28 species of mammals. It fulfils Criteria 5 (>20,000 waterbirds) as it is home to over 30,000 waterbirds according to the data from the Asian Waterbird Census. It fulfils Criteria 6 (>1% waterbird population), as it supports about 2% of the regional population of red-crested pochard.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Divisional Forest Officer, Jamui Forest Divsion
Postal address	Office of Jamui Forest Division, Asok Town Hall Road, Near Collectorate, Jamui-Pin code: 811307

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment, Forests and Climate Change, Government of India
Postal address	Ministry of Environment, Forest and Climate Change Government of India, 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	2018
To year	2022

2.1.3 - Name of the Ramsar Site

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

2.2 - Site location

2.2.1 - Defining the Site boundaries

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

Former maps	0

Boundaries description

The Site lies in Jhajha Forest Range of Jamui Forest Division of Bihar. The north-western boundary of the Site is a dam structure. A road is also present that connects 2 villages, namely Tola Kita Bat Bajra and Tola Baijla. The boundary in the rest of the direction is based on the floodplain of the reservoir recorded in 1987, when the reservoir was established as a Bird Sanctuary under the Wildlife Protection Act (1972). However, the floodplain area can vary every year to some extent due to the annual variance in rainfall intensity, which consequently also determines the annual expanse of the wetland. Hence, the adjacent villages can also serve as reference points for the boundaries. Following that reasoning, the Site is surrounded by Tola Saraia village in the east, Tola Kita Bat Bajra and Tola Phoksa villages in the west, Tola Baijala village in the north and Tola Belbinjha, Tola Kubri and Tola Kita Kasauna villages in the south.

2.2.2 - General location

a) In which large administrative region does the site lie?	The Nakti Bird Sanctuary is located in the Jamui district of the State of Bihar
b) What is the nearest town or population centre?	The nearest town to the Nakti Dam is Jhajha, located 9 km by road (aerial distance of 4.5 km), with a population of 1,986,777 (2011 census). It falls in Jamui district of the State of Bihar.

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):	332.608
Area, in hectares (ha) as calculated from GIS boundaries	332.608

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Ecoregion: Ganges Delta & Plain; Ecoregion ID: 709

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

<no data available>

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

Endangered species like black bellied tern (Sterna acuticauda) and other threatened and near-threatened species such as lesser adjutant stork (Leptoptilos javanicus), river tern (Sterna aurantia), painted stork (Mycteria leucocephala), ferruginous duck (Aythya nyroca), darter (Anhinga melanogaster), Indian Skimmer (Rynchops albicollis) and Black-headed ibis (Threskiornis melanocephalus) also inhabit the Site. Wallago attua, a vulnerable fish species, also inhabits the reservoir.

☑ Criterion 3 : Biological diversity

Justification

The Site supports a rich biological diversity by providing shelter, foraging and breeding grounds to several organisms. It also consists of transitional zones where terrestrial and aquatic habitats meet and thereby harbour organisms can navigate between both habitats or are specifically to the environment conditions created at a transitional zone (edge effect). A total of 75 species of birds, 8 species of macrophytes, 24 species of fishes have been recorded from the Site and its fringes. Several of these species are globally threatened, near-threatened and/ or indigenous to the Indian Subcontinent including, common krait (Bungarus caeruleus), Indian Elephant (Elephas maximus indicus), and butter catfish (Ompok bimaculatus). The Site's catchment is composed of dry deciduous forest with several indigenous terrestrial plants such as khair, babul, siris, kachnar, palash, arjun, bahera, sal, amaltas, peepal, gumhar, mahua and sahjan. The Site provides wintering habitat to several migratory bird species. Large congregation of bar-headed goose (Anser indicus), grey-lag goose (Anser anser), red-crested pochard (Netta rufina), common pochard (Aythya ferina), northern pintail (Anas acuta), and other water birds and shoreline birds have been recorded. Some examples of wildlife of conservation importance: porcupine, brown sand boa, red sand boa, Indian rock python, clown knifefish, wallagu attu, steppe eagle, Baer's pochard, common pochard, ferruginous duck, black necked stork, Asian white-backed vulture, Indian griffon, greater adjutant, lesser adjutant, Egyptian vulture, Indian skimmer, Indian river tern, sociable lapwing, etc. Some examples of wetland dependant species: hydrilla verticillata, vallisnaria natans, marsilea minuta, sagittaria sagtifolia, eleochais palustris, bacopa monnieri, eclipta prostrata, cyperus rotundus, typha angustata, common kingfisher, northern pintail, northern shoveler, common teal, garganey, gadwal, greylag goose, bar-headed goose, paddyfield pipit, Baer's pochard, common pochard, tufted duck, ferruginous duck, little stint, Indian skimmer, red crested pochard, Indian river tern, etc.

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

Optional text box to provide further information

The Site is a wintering ground for various migratory bird species, such as Actitis hypoleucos (Common Sandpiper), Anas acuta (Northern Pintail), Anas clypeata (Northern Shoveller), Anthus hodgsoni (Indian Tree Pipit), Anas crecca (Common Teal), Anas querquedula (Garganey), Anser anser (Greylag Goose), Anthus trivialis (Brown Tree Pipit), Aquila nipalensis (Steppe Eagle), Aythya ferina (Common Pochard), Aythya fuligula (Tufted Duck), Aythya nyroca (Ferruginous Duck), Calandrella brachydactyla (Greater Short toed Lark), Calidris minuta (Little Stint), Chaimarrornis leucocephalus (White capped Redstart), Charadrius alexandrinus (Kentish Plover), Circus aeruginosus (Eurasian Marsh Harrier), Falco tinnunculus (Common Kestrel), Mergus merganser (Common Merganser), Numenius arquata (Eurasian Curlew), Ocyceros birostris (Indian Grey Hornbill), Pluvialis apricaria (Eurasian Golden Plover), Tringa erythropus (Spotted Redshank), etc.

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	21400
Start year	2019
End year	2023
Source of data:	Asian waterbird census
Optional text box to provide further information	The Asian Waterbird Census is conducted annually. The data over the previous five years have been averaged to arrive at the above-mentioned numbers.

☑ Criterion 6 : >1% waterbird population

Optional text box to provide further information	As per the Asian Waterbird Census the number of Red Crested Pochards (Netta rufina) recorded at the site during the census was 3,000, which is above 1% of the global recorded population.

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	*Bacopa monnieri*	☐	☑	☐	LC	☐		Bacopa monnieri is a perennial, creeping herb native to the wetlands of southern and Eastern India, Australia, Europe, Africa, Asia, and North and South America. It commonly grows in marshy areas.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Ceratophyllum demersum*	☐	☑	☐	LC	☐		It is a submerged, free-floating aquatic plant. The wetland offers the aquatic habitat needed by the species.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Eclipta prostrata*	☐	☑	☐	LC	☐		This species grows commonly in moist places in warm temperate to tropical areas worldwide. It is widely distributed throughout India. It is a valuable medicinal plant
TRACHEOPHYTA / LILIOPSIDA	*Eleocharis palustris*	☐	☑	☐	LC	☐		It is a species of mat-forming perennial flowering plants in the sedge family Cyperaceae.. It offers feedstock for fish, and a habitat and breeding ground for birds.
TRACHEOPHYTA / LILIOPSIDA	*Hydrilla verticillata*	☐	☑	☐	LC	☐		It is an aquatic plant, native to the cool and warm waters of Asia, Africa and Australia. It offers feedstock for fish, and a habitat and breeding ground for birds
TRACHEOPHYTA / LILIOPSIDA	*Lemna minor*	☐	☑	☐	LC	☐		Lemna minor is a floating freshwater aquatic plant. The site offers a unique aquatic habitat for the species. The species offers feedstock for fish, and a habitat and breeding ground for birds
TRACHEOPHYTA / MAGNOLIOPSIDA	*Tectona grandis*	☑	☐	☐	EN	☐		It is an endangered plant species, found in this ecosystem. It has a large canopy, which provides shelter to birds and creates a vibrant ecosystem
TRACHEOPHYTA / LILIOPSIDA	*Vallisneria natans*	☐	☑	☐	LC	☐		It is an aquatic plant, which requires a specific aquatic habitat for survival, which is provided by 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								
Others																	
CHORDATA / REPTILIA	*Amphiesma stolatum*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Nonvenomous colubrid snake typically found near wetlands across Asia. Primarily feeds on frogs and toads and hence, is wetland-dependent.
CHORDATA / REPTILIA	*Bungarus caeruleus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Highly venomous elapid snake, native to the Indian subcontinent.

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								
CHORDATA / REPTILIA	*Daboia russelii*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Although there are various subspecies of the Russel's viper found in the Indian subcontinent, the Daboia russelii nordicus is unique to this region.
CHORDATA / AMPHIBIA	*Duttaphrynus melanostictus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Wetland provides breeding ground to this species; it is native to south and south-east Asia.
CHORDATA / MAMMALIA	*Elephas maximus indicus*	☑	☐	☐	☐	☑	☐	☐	☐				EN	☐	☑		Globally endangered species. Signs of this animal have been found around the dam.
CHORDATA / REPTILIA	*Eryx johnii*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐	CITES Appendix II	It is endemic to Iran, Pakistan, and India.
CHORDATA / AMPHIBIA	*Hoplobatrachus tigerinus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a large species of fork-tongued frog found in the wetlands of South and Southeast Asia. It is generally green in colour, but physiological traits can vary between populations.
CHORDATA / REPTILIA	*Naja naja*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	CITES Appendix II	The species is native to the Indian subcontinent, and is a member of the "big four" species that are responsible for the most snakebite cases in India.
CHORDATA / REPTILIA	*Ptyas mucosa*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	CITES Appendix II	Wetland provides breeding habitat to this species. It is native to south and south east Asia.
CHORDATA / REPTILIA	*Python molurus*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐		Near-threatened species and native to Southeast Asia.
CHORDATA / REPTILIA	*Varanus bengalensis*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☑	☐		This near-threatened species is distributed widely in the Indian Subcontinent and some parts of Southeast Asia and West Asia.
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	*Acanthocobitis mooreh*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		This species is found in the Godavari, Krishna, and Kaveri basins of western and southern India.
CHORDATA / ACTINOPTERYGII	*Ailia coila*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐		It is catfish species in the family Ailiidae and is native to India, Bangladesh, Nepal and Pakistan.
CHORDATA / ACTINOPTERYGII	*Botia dario*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Also known as Bengal loach or Queen loach, this species belongs to the family, Botiidae and is found in the Brahmaputra and Ganges basins in Bangladesh, Bhutan and northern India.
CHORDATA / ACTINOPTERYGII	*Chanda nama*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is native from Pakistan to Myanmar in the Indomalayan realm.
CHORDATA / ACTINOPTERYGII	*Channa gachua*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is native to southern Asia, and is able survive in most freshwater wetland types including large rivers, small brooks and creeks, stagnant waters, and in altered waterways such as canals.
CHORDATA / ACTINOPTERYGII	*Channa punctata*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is commonly found in wetlands such as ponds, swamps, brackish water, ditches and beels, in the Indian Subcontinent . Adults prefer stagnant waters. It is specifically adapted to the transitional areas between terrestrial and aquatic habitats, found in the Site.
CHORDATA / ACTINOPTERYGII	*Chitala chitala*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐		It is a near-threatened species found in the Brahmaputra, Indus, Ganges and Mahanadi River basins.

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								
CHORDATA / ACTINOPTERYGII	*Gagata cenia*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a species of sisorid catfish found in the Ganges Delta and the Indus River.
CHORDATA / ACTINOPTERYGII	*Gibelion catla*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is native to rivers and lakes of northern India, Bangladesh, Myanmar, Nepal, and Pakistan.
CHORDATA / ACTINOPTERYGII	*Gudusia chapra*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a species of fish in the family of Clupeidae, and is typically found in the rivers of India and Bangladesh draining to the Bay of Bengal.
CHORDATA / ACTINOPTERYGII	*Heteropneustes fossilis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is found mainly in ponds, ditches, swamps, and marshes, but sometimes occurs in muddy rivers. It can tolerate slightly brackish water. It is native to India, Bangladesh, Pakistan, Nepal, Sri Lanka, Thailand, Myanmar, and Bhutan.
CHORDATA / ACTINOPTERYGII	*Labeo bata*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Wetland provides spawning habitat to this species. It is native to India and Bangladesh.
CHORDATA / ACTINOPTERYGII	*Labeo calbasu*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Wetland provides spawning habitat to this species. It is native to India and Bangladesh.
CHORDATA / ACTINOPTERYGII	*Labeo rohita*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Indo-riverine wetland species that is also used in polyculture. Species is widely distributed in tropical freshwater in Indian subcontinent.
CHORDATA / ACTINOPTERYGII	*Macrognathus aculeatus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a Southeast Asian tropical freshwater fish.
CHORDATA / ACTINOPTERYGII	*Macrognathus pancalus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a small freshwater fish in southern Asia. It usually is found in slow and shallow rivers.
CHORDATA / ACTINOPTERYGII	*Mastacembelus armatus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a ray-finned spiny eel, and is typically native to the riverine ecosystems of India.
CHORDATA / ACTINOPTERYGII	*Mystus tengara*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Adults inhabit rivers and ponds in plains and sub-montane regions of the Indian sub-continent.
CHORDATA / ACTINOPTERYGII	*Notopterus notopterus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		It is a ray-finned fish in the family of Notopteridae, and is found in South and Southeast Asia. Although primarily found in fresh water, it has been known to enter brackish water.
CHORDATA / ACTINOPTERYGII	*Ompok bimaculatus*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐		It is a near-threatened sheatfish native to Asian countries such as Bangladesh, India, Pakistan, and Sri Lanka.
CHORDATA / ACTINOPTERYGII	*Pethia ticto*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Found in the shallow still riparian habitat of wetlands, which is provided by the Site.
CHORDATA / ACTINOPTERYGII	*Systomus sarana*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		Wetland provides spawning habitat to the species. It is native to south and south east Asia.
CHORDATA / ACTINOPTERYGII	*Trichogaster lalius*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		The dwarf gourami is native to Pakistan, India and Bangladesh.
CHORDATA / ACTINOPTERYGII	*Wallago attu*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐		Wetland provides spawning habitat to the species. It is native to south and south east Asia.
Birds																	
CHORDATA / AVES	*Accipiter badius*	☐	☑	☐	☐	☐	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		It is a small raptor, found in a wide range of habitats. The Site provides foraging and a breeding grounds for the species.

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								
CHORDATA / AVES	*Acridotheres ginginianus*	☐	☐	☐	☐	☑	☑	☐	☐	7	December, 2022 to February, 2023		LC	☐	☐		It is a myna found in the northern parts of South Asia. The native range is almost restricted to the Indian subcontinent.
CHORDATA / AVES	*Actitis hypoleucos*	☐	☑	☐	☐	☑	☑	☐	☐	7	December, 2022 to February, 2023		LC	☐	☐		The common sandpiper breeds across most of temperate and subtropical Europe and Asia, and migrates to Africa, southern Asia and Australia in winter. The wetland is a wintering site for the species.
CHORDATA / AVES	*Alcedo atthis*	☐	☐	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		It is a small kingfisher, widely distributed over Europe, Asia, and North Africa. It is strictly a wetland-dependent species.
CHORDATA / AVES	*Anas acuta*	☐	☑	☐	☐	☑	☑	☐	☐	4320	December, 2022 to February, 2023		LC	☐	☐		It is a duck species with wide geographic distribution that breeds in the northern areas of Europe and North America.The Site is a wintering location of the species.
CHORDATA / AVES	*Anas clypeata*	☐	☑	☐	☐	☑	☑	☐	☐	72	December, 2022 to February, 2023		LC	☐	☐		It is a duck species with wide geographic distribution that breeds in the northern areas of Europe and North America.The Site is a wintering location of the species.
CHORDATA / AVES	*Anas crecca*	☐	☑	☐	☐	☑	☑	☐	☐	108	December, 2022 to February, 2023		LC	☐	☐		It is a common and widespread duck that breeds in temperate Europe and migrates south in winter. The Site is a wintering location of the species.
CHORDATA / AVES	*Anas penelope*	☐	☑	☐	☐	☑	☑	☐	☐	540	December, 2022 to February, 2023		LC	☐	☐		It breeds in temperate Europe and migrates south in winter. The Site is a wintering location of the species.
CHORDATA / AVES	*Anas querquedula*	☐	☑	☐	☐	☑	☑	☐	☐	10	December, 2022 to February, 2023		LC	☐	☐		It is a small dabbling duck. The Site is a wintering location of the species.
CHORDATA / AVES	*Anas strepera*	☐	☐	☐	☐	☑	☑	☐	☐	1080	December, 2022 to February, 2023		LC	☐	☐		This Site shelters one of the major congregations of this Species in the entire Indo-gangetic plain.
CHORDATA / AVES	*Anastomus oscitans*	☐	☐	☐	☐	☑	☑	☐	☐	11	December, 2022 to February, 2023		LC	☐	☐		It is a large wading bird in the stork family. It is found only in water bodies. The wetland provides a habitat to the species.
CHORDATA / AVES	*Anser anser*	☐	☑	☐	☐	☑	☑	☐	☐	180	December, 2022 to February, 2023		LC	☐	☐		It is a species of large goose in the waterfowl family. The Site is a wintering location of the species.
CHORDATA / AVES	*Anser indicus*	☐	☐	☐	☐	☑	☑	☐	☐	100	Dec, 2022 to Feb, 2023		LC	☐	☐		This Site shelters one of the major congregations of this Species in the entire Indo-gangetic plain.
CHORDATA / AVES	*Anthus hodgsoni*	☐	☑	☐	☐	☑	☑	☐	☐	10	December, 2022 to February, 2023		LC	☐	☐		It is a small passerine bird of the pipit genus, which breeds across southern, north central and eastern Asia, as well as in the north-eastern European Russia. It is a long-distance migrant moving in winter to southern Asia.
CHORDATA / AVES	*Anthus rufulus*	☐	☑	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It is a small passerine bird in the pipit and wagtail family. It is a resident (non-migratory) breeder in open scrub, grassland and cultivation in southern Asia.
CHORDATA / AVES	*Anthus trivialis*	☐	☑	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It is a small passerine bird which breeds across most of Europe. It is a long-distance migrant moving in winter to Africa and southern Asia. The Site is a wintering location of the species.
CHORDATA / AVES	*Aquila clanga*	☑	☑	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		VU	☐	☐		The Site is a wintering location of this globally threatened species.

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								
CHORDATA / AVES	*Aquila nipalensis*	☑	☑	☐	☐	☑	☑	☐	☐	10	December, 2022 to February, 2023		EN	☐	☑		The Site is a wintering location of this globally threatened species.
CHORDATA / AVES	*Athene brama*	☐	☑	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		It is a small owl which breeds in tropical Asia from mainland India to Southeast Asia.
CHORDATA / AVES	*Aythya baeri*	☑	☑	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		CR	☐	☑		The Site is a wintering location of this globally threatened species.
CHORDATA / AVES	*Aythya ferina*	☑	☑	☐	☐	☑	☑	☐	☐	540	December, 2022 to February, 2023		VU	☐	☐		The Site is a wintering location of this globally threatened species.
CHORDATA / AVES	*Aythya fuligula*	☐	☑	☐	☐	☑	☑	☐	☐	288	December, 2022 to February, 2023		LC	☐	☐		It is a small diving duck with a population of close to one million birds, found in northern Eurasia. The Site is a wintering location of the species.
CHORDATA / AVES	*Aythya nyroca*	☑	☑	☐	☐	☑	☑	☐	☐	540	December, 2022 to February, 2023		NT	☐	☑		It is a medium-sized diving duck from Eurosiberia. The Site is a wintering location of the species.
CHORDATA / AVES	*Calandrella brachydactyla*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It is a small passerine bird. It breeds in southern Europe, north-west Africa, and across the Palearctic from Turkey and southern Russia to Mongolia. During migration they form large, tight flocks that move in unison; at other times they form loose flocks. The Site is a wintering location of the species.
CHORDATA / AVES	*Calidris minuta*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It is a very small wader. It breeds in arctic Europe and Asia, and is a long-distance migrant, wintering south to Africa and south Asia. The Site is a wintering location of the species.
CHORDATA / AVES	*Centropus sinensis*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It widespread resident in the Indian Subcontinent and Southeast Asia. Wetland provides habitat, foraging and breeding ground to the species.
CHORDATA / AVES	*Chaimarrornis leucocephalus*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It is a passerine bird, native to the Indian Subcontinent, Southeast Asia, and some regions of China and Central Asia. The Site is a wintering location of the species.
CHORDATA / AVES	*Charadrius alexandrinus*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It breeds on the shores of saline lakes, lagoons, and coasts, populating sand dunes, marshes, semi-arid desert, and tundra. The Site is a wintering location of the species.
CHORDATA / AVES	*Charadrius dubius*	☐	☑	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		Their breeding habitats are open gravel areas near freshwater environs, including gravel pits, islands and riverbanks across the Palearctic including north-western Africa. Wetland provides similar habitat to the species.
CHORDATA / AVES	*Circus aeruginosus*	☐	☑	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It is a large bird of prey found from temperate and subtropical western Eurasia and adjacent Africa. The Site is a wintering location of the species.
CHORDATA / AVES	*Clamator jacobinus*	☐	☐	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It is partially migratory in India. In cultural beliefs, it has been considered a harbinger of the monsoon rains due to the timing of its arrival.
CHORDATA / AVES	*Copsychus saularis*	☐	☐	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		It is a small passerine bird, occurring across most of the Indian subcontinent and parts of Southeast Asia.

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								
CHORDATA / AVES	*Coracias benghalensis*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		This species occurs widely from West Asia to the Indian subcontinent. Often found perched on roadside trees and wires, it is common in open grassland and scrub forest habitats, and has adapted well to human-modified landscapes. The wetland provides similar habitats for foraging and breeding ground for this species.
CHORDATA / AVES	*Cuculus varius*	☐	☐	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It is a medium-sized cuckoo resident in the Indian subcontinent. It is a wetland-dependent species, receiving ideal habitat conditions from this Site.
CHORDATA / AVES	*Dendrocygna javanica*	☐	☑	☐	☐	☑	☑	☐	☐	720	December, 2022 to February, 2023		LC	☐	☐		It is a species of whistling duck that breeds in the Indian subcontinent and Southeast Asia. They are nocturnal feeders that during the day may be found in flocks around lakes and wet paddy fields.
CHORDATA / AVES	*Dicrurus caerulescens*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		The white-bellied drongo is a resident breeder in India and Sri Lanka. This species is usually found in dry scrub or open forests. It is found specifically in these habitats.
CHORDATA / AVES	*Dicrurus macrocercus*	☐	☑	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It is a common resident breeder in much of tropical southern Asia. The wetland provides habitat, foraging and breeding ground for the species.
CHORDATA / AVES	*Egretta garzetta*	☐	☐	☐	☐	☑	☑	☐	☐	101	December, 2022 to February, 2023		LC	☐	☐		Its breeding distribution is in wetlands in warm temperate to tropical parts of Europe, Africa, Asia, and Australia. It is mainly found near water bodies.
CHORDATA / AVES	*Elanus caeruleus*	☐	☑	☐	☐	☐	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		The Site provides foraging and breeding habitat for the species.
CHORDATA / AVES	*Ephippiorhynchus asiaticus*	☐	☐	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		NT	☐	☐		It is a near-threatened species found in the Site. It lives exclusively in wetlands.
CHORDATA / AVES	*Eremopterix griseus*	☐	☑	☐	☐	☐	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		The wetland provides foraging and breeding habitat for the species.
CHORDATA / AVES	*Euodice malabarica*	☐	☐	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		This species is usually found close to water bodies and may be considered as a wetland dependent species
CHORDATA / AVES	*Falco tinnunculus*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		This species is widespread in Europe, Asia and Africa, and occasionally reaches the east coast of North America. The Site is a wintering location of the species.
CHORDATA / AVES	*Ficedula parva*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		It breeds in eastern Europe and across Central Asia and is migratory and wintering species in south Asia. The Site provides wintering ground to the species.
CHORDATA / AVES	*Francolinus pondicerianus*	☐	☐	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		It is a francolin species found in the plains and drier parts of the Indian subcontinent and Iran.
CHORDATA / AVES	*Fulica atra*	☐	☐	☐	☐	☑	☑	☐	☐	7920	December, 2022 to February, 2023		LC	☐	☐		This Site shelters one of the major congregations of this Species in the entire Indo-gangetic plain.
CHORDATA / AVES	*Gyps bengalensis*	☑	☐	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		CR	☐	☑		It is a Critically Endangered Species found in the wetland.
CHORDATA / AVES	*Gyps indicus*	☑	☐	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		CR	☐	☑		It is a Critically Endangered Species found in the wetland.
CHORDATA / AVES	*Haliaeetus leucoryphus*	☑	☐	☐	☐	☑	☑	☐	☐	4	December, 2022 to February, 2023		EN	☐	☑		It is an Endangered Species found in the wetland.

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								
CHORDATA / AVES	*Himantopus himantopus*	☐	☐	☐	☐	☐	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		The breeding habitat of this species is marshes, shallow lakes and ponds. Hence, the wetland provides an ideal habitat to this species.
CHORDATA / AVES	*Hirundo rustica*	☐	☐	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		This species prefers an open habitat that is close to a water body; this ideal habitat condition is provided by the Site.
CHORDATA / AVES	*Leptoptilos dubius*	☑	☐	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		EN	☐	☐		It is an Endangered Species found in the wetland.
CHORDATA / AVES	*Leptoptilos javanicus*	☑	☐	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		VU	☐	☐		It is a Vulnerable Species found in the wetland.
CHORDATA / AVES	*Mergus merganser*	☐	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		LC	☐	☐		This is a large seaduck species found in freshwater rivers and lakes in the forested areas of Europe, Asia, and North America. The Site is a wintering location of the species.
CHORDATA / AVES	*Microcarbo niger*	☐	☐	☐	☐	☑	☑	☐	☐	180	December, 2022 to February, 2023		LC	☐	☐		This species is widely distributed across the Indian Subcontinent. It forages alone or sometimes in loose groups in lowland freshwater bodies, including small ponds, large lakes, streams and sometimes in coastal estuaries.
CHORDATA / AVES	*Milvus migrans*	☐	☐	☐	☐	☐	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		The wetland provides foraging ground to the species.
CHORDATA / AVES	*Neophron percnopterus*	☑	☐	☐	☐	☑	☑	☐	☐	4	December, 2022 to February, 2023		EN	☐	☑		It is an Endangered Species found in the wetland.
CHORDATA / AVES	*Netta rufina*	☐	☐	☑	☐	☑	☑	☐	☐	3000	December, 2022 to February, 2023	2.2	LC	☐	☐		This Site shelters one of the major congregations of this Species in the entire Indo-gangetic plain.
CHORDATA / AVES	*Nettapus coromandelianus*	☐	☐	☐	☐	☑	☑	☐	☐	720	December, 2022 to February, 2023		LC	☐	☐		It is a small perching duck which breeds in Asia and Southeast Asia, and even extending south and east to Queensland, Australia. They are among the smallest waterfowl in the world and are found in small to large waterbodies with good aquatic vegetation; this habitat is provided by the Site too.
CHORDATA / AVES	*Numenius arquata*	☐	☑	☐	☐	☑	☑	☐	☐	7	December, 2022 to February, 2023		NT	☐	☐		The curlew exists as a migratory species over most of its range, wintering in Africa, southern Europe and south Asia. The Site is a wintering location of the species.
CHORDATA / AVES	*Ocyceros birostris*	☐	☑	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		It is a common hornbill found in the Indian subcontinent. The Site is a wintering location of the species.
CHORDATA / AVES	*Oenanthe fusca*	☐	☐	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		LC	☐	☐		Endemic to India. The provides foraging habitat to this species.
CHORDATA / AVES	*Pandion haliaetus*	☐	☐	☐	☐	☑	☑	☐	☐	6			LC	☐	☐		The osprey tolerates a wide variety of habitats, nesting in any location near a body of water providing an adequate food supply.
CHORDATA / AVES	*Pernis ptilorhynchus*	☐	☑	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It migrates for breeding to Siberia and Japan during summer. They then spend winter in Southeast Asia and the Indian subcontinent. The Site is a wintering location of the species.
CHORDATA / AVES	*Pluvialis apricaria*	☐	☑	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		It tends to breed in the Arctic tundra and other palearctic areas. It tends to gather in large flocks and winters in open areas, agricultural plains, ploughed land, and short meadows. The Site is a wintering location of the species.
CHORDATA / AVES	*Rynchops albicollis*	☑	☐	☐	☐	☑	☑	☐	☐	6			EN	☐	☐		It is found in southern Asia, where it is patchily distributed and is declining in numbers. They are mainly found in rivers or estuaries.

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								
CHORDATA / AVES	*Sterna acuticauda*	☑	☐	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		EN	☐	☐		It is an Endangered Species found in the wetland.
CHORDATA / AVES	*Sterna aurantia*	☑	☐	☐	☐	☑	☑	☐	☐	6	December, 2022 to February, 2023		VU	☐	☐		It is a Vulnerable Species found in the wetland.
CHORDATA / AVES	*Tachybaptus ruficollis*	☐	☑	☐	☐	☑	☑	☐	☐	570	December, 2022 to February, 2023		LC	☐	☐		It is an aquatic bird. The wetland provides suitable feeding and breeding habitat for this species.
CHORDATA / AVES	*Tadorna ferruginea*	☐	☐	☐	☐	☑	☑	☐	☐	10	December, 2022 to February, 2023		LC	☐	☐		This Site shelters one of the major congregations of this Species in the entire Indo-gangetic plain.
CHORDATA / AVES	*Threskiornis melanocephalus*	☐	☐	☐	☐	☑	☑	☐	☐	25	December, 2022 to February, 2023		NT	☐	☐		It is a near-threatened wading bird of the ibis family, Threskiornithidae, which breeds from India to Japan.
CHORDATA / AVES	*Tringa erythropus*	☐	☑	☐	☐	☑	☑	☐	☐	4	December, 2022 to February, 2023		LC	☐	☐		It breeds across northern Scandinavia and northern Palearctic and migrates south to the Mediterranean, the southern British Isles, France, tropical Africa, and tropical Asia in the winter. The Site is a wintering location of the species.
CHORDATA / AVES	*Vanellus gregarius*	☑	☑	☐	☐	☑	☑	☐	☐	5	December, 2022 to February, 2023		CR	☐	☑		It is a migratory bird, breeding in Kazakhstan and wintering in the Middle East, Indian Subcontinent, and Sudan. The bird winters in the wetland.
CHORDATA / AVES	*Vanellus indicus*	☐	☑	☐	☐	☑	☑	☐	☐	4	December, 2022 to February, 2023		LC	☐	☐		This species is usually found near wetlands; this Site provides a suitable habitat for breeding to this species.
CHORDATA / AVES	*Vanellus malabaricus*	☐	☐	☐	☐	☑	☑	☐	☐	8	December, 2022 to February, 2023		LC	☐	☐		The species is endemic to the Indian Subcontinent and is found in the Site.

1) Percentage of the total biogeographic population at the site

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

<no data available>

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

4.1 - Ecological character

The Site was built as a reservoir by constructing the Nakti Dam across the Nakti River for irrigation purposes. Since the construction, the reservoir has slowly developed diverse habitats suitable for various migratory and resident birds, fishes, and other wetland-dependent flora and fauna. Some terrestrial birds such as the Indian courser (Cursorius coromandelicus), the chestnut-bellied sandgrouse (Pterocles exustus), the yellow-wattled lapwing (Vanellus malabaricus) and the Indian robin (Saxicoloides fulicata) have also been seen. More than 20,000 waterbirds congregate in and around the Site in winter. In addition to the irrigational services, the Site also helps in replenishing aquifers in the area and recharging groundwater. Although the Site falls in the Gangetic Plains biogeographic region, the overall characteristics and topography around it is similar to that of the Northern Deccan Plateau. Some species from the Northern Deccan Plateau have also be sighted at the Site. The surrounding terrain is slightly undulating and the catchment area is surrounded by hills. The catchment area of the Site is largely forestlands, where some patches are partially degraded. It comprises of plant species including Boswellia serrata, Anogeissus latifolia, Madhuca longifolia, Ipomoea spp., Ziziphus jujuba, Datura metel, Achyrathus aspera, Mikania micrantha, Lantana camara, etc. The Site receives water from the Nakti River, its tributaries and other smaller seasonal streams. It receives south-west monsoonal rainfall, mostly from the middle of June to early October. The soil is reddish and gravels and pebbles are commonly found on the slopes and in the riverbed. In agricultural lands around the Site, the soil is composed of a mixture between sand and clay.

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

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
6: Water storage areas/Reservoirs	Nakti	1	332.608

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	*Acacia catechu*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Acacia nilotica*	Impacts the environment through soil reclamation
TRACHEOPHYTA/MAGNOLIOPSIDA	*Acalypha indica*	Known for some medicinal properties
TRACHEOPHYTA/MAGNOLIOPSIDA	*Albizia lebbeck*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Andrographis paniculata*	A medicinal plant
TRACHEOPHYTA/LILIOPSIDA	*Aristida adscensionis*	It is a species of grass, native to the Americas but it is distributed nearly worldwide
TRACHEOPHYTA/MAGNOLIOPSIDA	*Azadirachta indica*	It is native to the Indian subcontinent
TRACHEOPHYTA/MAGNOLIOPSIDA	*Boerhavia diffusa*	It is a medicinal plant
TRACHEOPHYTA/MAGNOLIOPSIDA	*Bombax ceiba*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Butea monosperma*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Calotropis gigantea*	This plant plays host to a variety of insects and butterflies.
TRACHEOPHYTA/MAGNOLIOPSIDA	*Carissa opaca*	It is a medicinal plant
TRACHEOPHYTA/MAGNOLIOPSIDA	*Cassia fistula*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Clerodendrum indicum*	It is a medicinal plant
TRACHEOPHYTA/MAGNOLIOPSIDA	*Dalbergia sissoo*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Delonix regia*	It is a beautiful flowering plant, which adds to the scenic beauty of the site
TRACHEOPHYTA/MAGNOLIOPSIDA	*Diospyros ebenum*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Ficus religiosa*	Checks soil erosion
TRACHEOPHYTA/MAGNOLIOPSIDA	*Gmelina arborea*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Gymnema sylvestre*	It is a medicinal plant
TRACHEOPHYTA/MAGNOLIOPSIDA	*Madhuca longifolia*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Nymphoides hydrophylla*	A pondweed, which offers feedstock for fishes
TRACHEOPHYTA/LILIOPSIDA	*Ottelia alismoides*	A pondweed, which offers feedstock for fishes
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pongamia pinnata*	It has a large canopy, which can house a vibrant ecosystem
TRACHEOPHYTA/LILIOPSIDA	*Potamogeton crispus*	A pondweed, which offers feedstock for fishes
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pterocarpus marsupium*	Unique to this biogeography
TRACHEOPHYTA/MAGNOLIOPSIDA	*Scoparia dulcis*	A pondweed, which offers feedstock for fishes
TRACHEOPHYTA/LILIOPSIDA	*Stuckenia pectinata*	A pondweed, which offers feedstock for fishes
TRACHEOPHYTA/MAGNOLIOPSIDA	*Terminalia arjuna*	Unique to this biogeography

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	*Lantana camara*	Actual (minor impacts)

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	*Anhinga melanogaster*				It is a water bird of tropical South Asia and Southeast Asia.
CHORDATA/AVES	*Cursorius coromandelicus*				It is found, mainly in the plains bounded by the Ganges and Indus river system
CHORDATA/MAMMALIA	*Hystrix indica*				It is a hystricomorph rodent species native to southern Asia and the Middle East
CHORDATA/AVES	*Mycteria leucocephala*				Unique to this biogeography
CHORDATA/AVES	*Pseudibis papillosa*				Unique to this biogeography
CHORDATA/MAMMALIA	*Vulpes bengalensis*				Endemic to the Indian subcontinent

4.4 - Physical components

4.4.1 - Climate

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

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 166

a) Maximum elevation above sea level (in metres): 163

- 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.

The Nakti dam reservoir falls within the Harohar-Keol river basin in the Ganga river basin

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 permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from surface water	☑	No change

Water destination

Presence?	
To downstream catchment	No change

Stability of water regime

Presence?	
Water levels largely stable	No change

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

The source of water for the Nakti Bird Sanctuary is perennial. This Site is fed by the Nakti River, which is a tributary of the Keol River. As it is a man-made wetland constructed primarily for irrigational purposes, its water level can mildly fluctuate depending upon the monsoon precipitation and release of water for agriculture.

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 ☐

Please provide further information on sediment (optional):

As it is a man-made wetland on the Nakti River, no significant erosion takes place here and in the upstream area.

(ECD) Water turbidity and colour	Turbidity 7.8 to 15.8 NTU in different areas
(ECD) Water temperature	26-32 degrees Celsius

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:

The surrounding area is undulating and hilly, having dry deciduous forests, degraded forests or places devoid of forest. Apart from forest land, one side of the reservoir is surrounded by agricultural fields.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	High
Fresh water	Drinking water for humans and/or livestock	Low
Wetland non-food products	Other	Low
Wetland non-food products	Fuel wood/fibre	High
Wetland non-food products	Reeds and fibre	Medium
Genetic materials	Ornamental species (live and dead)	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Erosion protection	Soil, sediment and nutrient retention	High
Pollution control and detoxification	Water purification/waste treatment or dilution	Low
Climate regulation	Local climate regulation/buffering of change	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Medium
Spiritual and inspirational	Inspiration	High
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Spiritual and inspirational	Contemporary cultural significance, including for arts and creative inspiration, and including existence values	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Long-term monitoring site	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	Accumulation of organic matter	Medium
Nutrient cycling	Carbon storage/sequestration	Medium

Within the site: 32000

Outside the site: 35000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes ○ No ○ Unknown ◉

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland ☐

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

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

Description if applicable

The ecological character of Nakti Bird Sanctuary is greatly influenced by inundation regime and has linkages with agriculture and fisheries systems. Macrophytes harvest helps keep the overall invasiveness in check. Similarly, harvest of bivalves and fish constitute an important part of the
nutrient and carbon cycles within the wetland system. Conversely, the state of wetland is influenced by the mechanisms through which ecosystem services integrate with livelihood capitals. Increased pressure on fisheries and use of destructive gears has impacted fish populations. Excessive dependence of groundwater for agriculture and aquaculture has implications for water and sediment regimes

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 ☐

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	☑	☑

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	☐	☑

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

The reservoir was formed due to construction of dam on the Nakti river and the land is the property of the Irrigation Department of Bihar State Government. However, an area of 332.608 hectare (3.326 km2) was declared as Bird Sanctuary by Government of Bihar. Due to the importance of the area for migratory birds, the administrative control from the sanctuary point of view lies under Divisional Forest Officer. There are agriculture fields in one side of the reservoir which is owned by private or individual owners.

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:
Principial Chief Conservator of Forest, Environment, Climate Change & Wetland, Department of Environment, Forest and Climate Change, Bihar, India
Bihar State Wetland Authority, Bihar, India

Provide the name and/or title of the person or people with responsibility for the wetland:
Divisional Forest Officer, Jamui Forest Division, Jamui, Bihar, India

E-mail address:
jamuidfo@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
Unspecified development	Medium impact	Medium impact	☐	☑

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Medium impact	High impact	☐	☑

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Annual and perennial non-timber crops	Medium impact	Medium impact	☑	☑

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified/others	High impact	High impact	☑	☑

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Dams and water management/use	High impact	High 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	High impact	High impact	☑	☑
Problematic native species	High impact	High impact	☑	☑

Pollution

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

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Temperature extremes	Low impact	Medium impact	☑	☑

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Wildlife Sanctuary	Nakti Bird Sanctuary	naginaktibirdsanctuary.bihar.gov .in	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Nakti Bird Sanctuary (Important Bird Area)	http://datazone.birdlife.org/site/factsheet/nagi-dam-and-nakti-d am-bird-sanctuary-iba-india	whole
Other non-statutory designation	Nakti Bird Sanctuary (Key Biodiversity Area)	https://www.keybiodiversityareas.org/site/factsheet/18116	whole

5.2.3 - IUCN protected areas categories (2008)

Ia Strict Nature Reserve ☐

Ib Wilderness Area: protected area managed mainly for wilderness protection ☐

II National Park: protected area managed mainly for ecosystem protection and recreation ☐

III Natural Monument: protected area managed mainly for conservation of specific natural features ☐

IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention ☑

V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation ☐

VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Proposed
Improvement of water quality	Proposed
Habitat manipulation/enhancement	Proposed
Hydrology management/restoration	Proposed
Re-vegetation	Proposed
Soil management	Proposed
Land conversion controls	Proposed
Faunal corridors/passage	Proposed

Species

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

Human Activities

Measures	Status
Management of water abstraction/takes	Proposed
Regulation/management of wastes	Proposed
Livestock management/exclusion (excluding fisheries)	Proposed
Fisheries management/regulation	Proposed
Harvest controls/poaching enforcement	Proposed
Regulation/management of recreational activities	Proposed
Communication, education, and participation and awareness activities	Proposed
Research	Proposed

5.2.5 - Management planning

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

Has a management effectiveness assessment been undertaken for the site? Yes ○ No ◉

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

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Proposed
Water quality	Proposed
Soil quality	Proposed
Plant community	Proposed
Plant species	Proposed
Animal community	Proposed
Birds	Proposed

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

1. Management Plan of Nagi and Nakti Birds Sanctuary, Jamui, (Bihar): Department of Environment and Forests Government of Bihar 2019-2020 to 2028-29.
2. Rahmani, A.R., Islam, M.Z. and Kasambe, R.M. (2016) Important Bird and Biodiversity Areas in India: Priority Sites for Conservation (Revised and updated). Bombay Natural History Society, Indian Bird Conservation Network, Royal Society for the Protection of Birds and BirdLife International (U.K.). Pp. 1992 + xii
3. O N Maurya (2019): Indicative Flora of Eco-Sensitive Zone of Nagi Bird Sanctuary, Jamui district, Bihar.Central National Herbarium Botanical Survey of India, Howrah.
4. Sunil Choudhary (2016): Nagi Nakti Bird Sanctuary Management Plan: Primarydata on water quality and plankton. Technical Report · April 2016. DOI: 10.13140/RG.2.1.1421.6562
5. Amrita Laha and Nita Shah (2022): Baseline documentation of the socio -ecological dynamics around select four wetlands in Bihar, Technical Report· August 2022. https://www.researchgate.net/publication/362695019

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
<1 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Mounds in Nakti Bird Sanctuary (*DFO Jamui, 01-12-2020*)


Nakti Dam Reservoir (*DFO Jamui, 15-12-2023*)


Birds of Nakti (*DFO Jamui, 15-12-2023*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2023-10-11