



Ramsar Information Sheet

Published on 1 February 2022

India

Bakhira Wildlife Sanctuary



Designation date	29 June 2021
Site number	2465
Coordinates	26°54'36"N 83°07'47"E
Area	2 894,00 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

Bakhira Wildlife Sanctuary, situated in Sant Kabir Nagar district in Uttar Pradesh, comprises largely of a shallow river connecting freshwater marshes and is located to the west of Rapti river. Famed as the largest natural floodplain wetland of eastern Uttar Pradesh, the wetland spans across an area of 2,894 ha. The terrain of the wetland is mostly flat with an average elevation of 100 meters above mean sea level, characteristic of a typical terai landscape. The major source of water is precipitation and inflows from Ami river which ensures a perennial source of water to this wetland, forming conducive habitats for myriad forms of plant and animal species. The presence of *Phragmites* sp., in patches within the wetland, makes it a unique habitat for migratory birds.

Bakhira wetland provides a safe wintering and staging ground for a large number of migratory bird species of Central Asian Flyway, with prominent ones being red-crested pochard (*Netta rufina*), Northern pintail (*Anas acuta*) and Northern shoveller (*Anas clypeata*). Besides, the site also acts as a breeding ground for resident birds, such as swamphen (*Porphyrio porphyrio*) and is a known congregation site of the vulnerable Sarus crane (*Grus antigone*). The wetland is also known to support at least 45 species of commercially important fish and 119 species of flora belonging to 42 families. Aquatic vegetation like *Typha angustifolia*, *Phragmites karka*, *Vallisneria spiralis*, *Lemna minor* and *Potamogeton* sp. provide staging and nesting sites to avian species.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Department of Forest
Postal address	Office of the Divisional Forest Officer Sant Kabirnagar Uttar Pradesh

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment, Forest and Climate Change
Postal address	Indira Paryavaran Bhawan Jor Bagh Road Delhi-110003

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

From year	2014
To year	2017

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Bakhira Wildlife Sanctuary
Unofficial name (optional)	Bakhira Bird Sanctuary

2.2 - Site location

2.2.1 - Defining the Site boundaries

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

Former maps	0
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Boundaries description

The entire wetland area is located within Bakhira Wildlife Sanctuary and is thus protected under the Wildlife Protection Act. The wetland is surrounded by an eco-sensitive zone that expands up to one kilometer on all sides. Barring North, this zone is dotted with villages on all sides with maximum settlement present towards southern end. Villages of Gaighat, Birar, Banganwa and Matkhas are situated on eastern side while those of Jhungla, Bag nagar, Kanhapar and Dhongia located at the western end. The southern side has more than 20 villages with some villages such as Nawapar, Niwas and Mahla situated near the wetland boundary.

2.2.2 - General location

a) In which large administrative region does the site lie?	The site is situated in Sant Kabir Nagar district in the state of Uttar Pradesh.
b) What is the nearest town or population centre?	Ledwamahua

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):	2894
Area, in hectares (ha) as calculated from GIS boundaries	2894.452

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Ganges delta and plains

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

The diverse habitats enable the wetland to sustain several species that includes over 80 species of avifauna, comprising 47 resident, 28 migrant and 9 resident migrant species. The wetland also supports 119 species of flora belonging to 42 families and 45 species of fish belonging to 17 families, many of which are also commercially important. Globally vulnerable fish *Wallago attu* and near-threatened species of *Ailia coila* are also found in the wetland. Populations of smaller mammals like golden jackal (*Canis aureus*), jungle cat (*Felis chaus*) and small Indian mongoose (*Herpestes auro-punctatus*) have been reported from the site.

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

Criterion 8 : Fish spawning grounds, etc.

Justification

Bakhira Wildlife Sanctuary serves as spawning ground for at least 45 fish species belonging to 7 orders, 17 families, and 32 genera. Globally vulnerable *Wallago attu* and near-threatened species of *Ailia coila* are also found in the wetland.

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

<no data available>

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence ¹⁾	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	<i>Ailia coila</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Amblypharyngodon mola</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Cabdio morar</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Chanda nama</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Channa marulius</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Cirrhinus mrigala</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns 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 / ACTINOPTERYGII	<i>Clupisoma garua</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Cyprinus carpio</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Esomus danrica</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Eutropiichthys vacha</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Gibelion catla</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Gudusia chapra</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Hypophthalmichthys molitrix</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Labeo bata</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Labeo calbasu</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Labeo rohita</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Mastacembelus armatus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Mystus bleekeri</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Nandus nandus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Notopterus notopterus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Pangasius pangasius</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Parambassis ranga</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Puntius sophore</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Securicula gora</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Setipinna phasa</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Sperata aor</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Trichogaster fasciata</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Spawns in the wetland
CHORDATA / ACTINOPTERYGII	<i>Wallago attu</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		spawns in the wetland
Birds																	
CHORDATA / AVES	<i>Actitis hypoleucos</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species that also contributes to it's biodiversity
CHORDATA / AVES	<i>Anas acuta</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		wetland is a wintering site for species that contributes to it's biodiversity
CHORDATA / AVES	<i>Anas clypeata</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species and contributes to it's biodiversity

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	<i>Anas crecca</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species that contributes to biodiversity of the site
CHORDATA / AVES	<i>Anas penelope</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species that contributes to it's biodiversity
CHORDATA / AVES	<i>Anas platyrhynchos</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species which contributes to its biodiversity
CHORDATA / AVES	<i>Anas querquedula</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species which also contributes to its biodiversity
CHORDATA / AVES	<i>Anas strepera</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species that contributes to it's biodiversity
CHORDATA / AVES	<i>Anhinga melanogaster</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		A resident species that contributes to the biodiversity
CHORDATA / AVES	<i>Anser anser</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is wintering site for the species and contributes to biodiversity of the site
CHORDATA / AVES	<i>Anser indicus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species that contributes to it's biodiversity
CHORDATA / AVES	<i>Aquila clanga</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for this vulnerable species that also contributes to biodiversity of the site.
CHORDATA / AVES	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		wetland is a wintering site for the species that also contributes to it's biodiversity.
CHORDATA / AVES	<i>Aythya fuligula</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is wintering site for the species that contributes to its biodiversity
CHORDATA / AVES	<i>Calidris minuta</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		wetland is wintering site for the species which contributes to its biodiversity.
CHORDATA / AVES	<i>Ciconia ciconia</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species that also contributes to it's biodiversity
CHORDATA / AVES	<i>Ciconia episcopus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland serves as habitat for the species that also contributes to biodiversity of the site.
CHORDATA / AVES	<i>Francolinus gularis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Vulnerable resident species that contributes to biodiversity of the site.
CHORDATA / AVES	<i>Fulica atra</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a wintering site for the species which contributes to it's biodiversity
CHORDATA / AVES	<i>Gallinago nemoricola</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		wetland serve as a wintering site for the species which contributes to it's biodiversity.
CHORDATA / AVES	<i>Grus antigone</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Wetland serves as habitat for the species that contributes to its biodiversity
CHORDATA / AVES	<i>Ichthyophaga ichhyaetus</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Resident species that contributes to the biodiversity of the wetland 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
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CHORDATA / AVES	<i>Mycteria leucocephala</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Resident species that contributes to biodiversity of the wetland
CHORDATA / AVES	<i>Neophron percnopterus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		This endangered species is resident to the wetland, contributing to its biodiversity.
CHORDATA / AVES	<i>Netta rufina</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		wetland is a wintering site for the species that also contributes to its biodiversity.
CHORDATA / AVES	<i>Porphyrio porphyrio</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is a breeding ground for this resident species that contributes to its biodiversity
CHORDATA / AVES	<i>Tadorna ferruginea</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		Wetland is wintering site for the species and also contributes to biodiversity of the site.
CHORDATA / AVES	<i>Tringa totanus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		wetland is a wintering site for the species which contributes to its biodiversity.
CHORDATA / AVES	<i>Vanellus duvaucelii</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		Wetland provides habitat to this resident species which contributes to its biodiversity.

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

Bakhira wildlife Sanctuary is a freshwater marsh spread over an area of 2894 ha and consists of a shallow, river connecting perennial wetland that forms a part of natural floodplain. The terrain is majorly flat, characteristic of "terai" landscape. Wetland receives water from Ami river and outflow from the site drains into Rapti river through Churna nala. Marshy conditions interspersed with patches of Phragmites makes it a unique habitat for migratory avian fauna. Around 80 waterbird species have been observed at the site, with the prominent waterbird species being red-crested pochard (*Netta rufina*), Northern pintail (*Anas acuta*) and Northern shoveller (*Anas clypeata*). Besides, the presence of several species of aquatic flora such as *Typha angustifolia*, *Phragmites karka*, *Eichhornia crassipes*, *Hydrilla verticillata*, *Vallisneria spiralis* and *Lemna minor*, the wetland facilitates conditions necessary for wintering and staging grounds for migratory waterbirds. The site is known to support breeding population of purple moorhens and also act as congregation site for sarus cranes. Being a river connected wetland, Bakhira wetland acts as a spawning site for 45 species of commercially important fish, including globally vulnerable *Wallago attu* and near-threatened species of *Ailia coila*.

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 > Marshes on inorganic soils >> Tp: Permanent freshwater marshes/pools		1	2894	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ceratophyllum demersum</i>	leaves are eaten by waterfowl;
TRACHEOPHYTA/LILIOPSIDA	<i>Hydrilla verticillata</i>	aquatic keystone species provide food and breeding site to the aquatic organisms
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ipomoea aquatica</i>	tropical plant used as food and fodder
TRACHEOPHYTA/LILIOPSIDA	<i>Lemna minor</i>	widely distributed in Asia, species is used as medicine, fodder and in bioremediation
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Ludwigia adscendens</i>	Native to sub-tropical Himalayas, species is a source of food for waterfowl and habitat for invertebrates
TRACHEOPHYTA/LILIOPSIDA	<i>Phragmites karka</i>	tropical plant, provides nesting site to waterfowl
TRACHEOPHYTA/LILIOPSIDA	<i>Vallisneria spiralis</i>	cosmopolitan in distribution, the species is significant source of food for waterfowl.

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/LILIOPSIDA	<i>Eichhornia crassipes</i>	Actual (major impacts)

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	<i>Canis aureus</i>				Found throughout India, species is protected under schedule 2 of Indian wildlife (Protection) Act, 1972
CHORDATA/MAMMALIA	<i>Felis chaus</i>				species is protected under schedule II of CITES and Indian wildlife (protection) Act, 1972
CHORDATA/MAMMALIA	<i>Herpestes javanicus auropunctatus</i>				Native to South, South-East Asia, species is protected under Schedule III of CITES and Schedule 2 of Indian Wildlife (protection) Act, 1972

4.4 - Physical components

4.4.1 - Climate

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

The temperature ranges from 4 °C to 23 °C. Average rainfall is 800-1200 mm. The relative humidity is high and reaches above 70%.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

- Entire river basin
- Upper part of river basin
- Middle part of river basin
- Lower part of river basin
- More than one river basin
- Not in river basin
- Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

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	<input checked="" type="checkbox"/>	No change
Water inputs from precipitation	<input type="checkbox"/>	No change

Water destination

Presence?	
Feeds groundwater	No change
To downstream catchment	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:

Water levels are largely determined by inflows from Ami river and outflow to Rapti river.

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site
- Significant accretion or deposition of sediments occurs on the site
- Significant transportation of sediments occurs on or through the site
- Sediment regime is highly variable, either seasonally or inter-annually
- Sediment regime unknown

4.4.6 - Water pH

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

Please provide further information on pH (optional):

pH of Bakhira wetland shows alkaline conditions, ranging between 7.23 - 9.02. Lower pH values are recorded in monsoon whereas higher pH values prevail in summers.

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

Please provide further information on salinity (optional):

Salinity ranges from 0.18-0.20 g/l with highest values recorded during March and July.

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

Please provide further information on dissolved or suspended nutrients (optional):

Chloride- 8.0±0.01-19.0±0.01 mg/l; Phosphate- <0.003±0.01 (January) to 0.39± 0.01 mg/l (May); Sulphate- 2.36±0.09 (May) to 16.20±0.09 mg/l (November); Nitrate- <1.00±0.06 to 4.25±0.06 mg/l; Total nitrogen- varies from 3.36±0.09-10.08±0.09 mg/l, Fluoride - ranges from 0.30±0.05 to 1.54±0.09 mg/l

(ECD) Water conductivity

Conductivity ranges between 212.6±4.6-371.7±6.8 µS/cm. It is generally low in winters and high in summer and monsoon.

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 i) broadly similar ii) significantly different site itself:

- 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:

At least 24 villages surround the sanctuary with majority of land under agriculture.

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
Wetland non-food products	Reeds and fibre	Low

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Low

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Medium

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	Medium

Within the site:

Outside the site:

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

4.5.2 - Social and cultural values

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

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

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

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
Provincial/region/state government	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Out of the total area of the 2894 ha of the wetland, 1819 ha is Gram Samaj land, 1059 ha is agricultural land and 15 ha is Reserve Forest area. The Gram Samaj land forms the core zone of Bakhira Wildlife Sanctuary, which contains the main water body.

5.1.2 - Management authority

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

Divisional Forest Officer, Sant Kabir Nagar district
Uttar Pradesh

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

Mr. T. Rangaraju

Postal address:

Office of Divisional Forest Officer
Sant Kabir Nagar District
Uttar Pradesh

E-mail address:

dfosantkabirnagar@gmail.com

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Agriculture and aquaculture

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

Biological resource use

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

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	Medium impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Sanctuary	Bakhira wildlife sanctuary		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Bakhira Wildlife Sanctuary		whole

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Proposed

Species

Measures	Status
Threatened/rare species management programmes	Proposed

Human Activities

Measures	Status
Fisheries management/regulation	Implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

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:

An Interpretation centre is present at the site.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

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

Population of Sarus crane in the wetland and surrounding areas are proposed to be monitored

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Mishra Sanjay, Satya Narain (2010) Floristic and Ecological Studies of Bakhira Wetland, Uttar Pradesh, India.

Mishra Himanshu, Kumar Vikas (2019) Population Structure and Habitat Utilization of Migratory Birds at Bakhira Bird Sanctuary, Uttar Pradesh, India

Pandey A.K, Chandra Prakash (2015) MONTHLY VARIATIONS IN PHYSICO-CHEMICAL PARAMETERS OF WATER OF PROTECTED WETLAND, BAKHIRA LAKE, SANT KABIR NAGAR (UTTAR PRADESH), INDIA National Journal of Life Science, Vol. 12(2) 2015 : 145-154

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.

Verma Hari Om, Krishna Gopal, Tripathi Suyash and Singh Abhay (2018) Journal of Entomology and Zoology Studies 2018; 6(3): 1357-1361

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

<no file available>

vi. other published literature

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



A pair of bar-headed geese at Bakhira (UP State Wetlands Authority, 02-02-2018)



Raft of Red-crested Pochards at Bakhira Wildlife Sanctuary (Chandan Pratik, 18-11-2020)



Bird's eye view of Bakhira Wetland (DFO, Sant Kabir nagar, 18-11-2020)



Panoramic view of Bakhira wetland (DFO, Sant kabir nagar, 18-11-2020)



Congregation of Gull-billed terns at Bakhira wildlife sanctuary (Chandan Pratik, 18-11-2020)



Flock of birds at Bakhira wildlife sanctuary (Chandan Pratik, 18-11-2020)



Ferruginous ducks at Bakhira Wildlife Sanctuary (Chandan Pratik, 18-11-2020)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation