



Ramsar Information Sheet

Published on 31 October 2022

India

Shallbugh Wetland Conservation Reserve



Designation date	8 June 2022
Site number	2488
Coordinates	34°09'41"N 74°43'41"E
Area	1 675,00 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

Shallabugh Wetland Conservation Reserve is located in the District Srinagar, UT of J&K. It is situated in the deltaic region of the Sindh Nallah, about 18 km from Srinagar to the west of the Anchar Lake. It is an important aquatic ecosystem of Kashmir Himalaya and covers an area of 1675 hectares. The depth of the water varies from 0.3 to 2.0 m, and the water level fluctuates considerably according to the rainfall and snowmelt. Large areas of the wetland dry up between September and March. The area has extensive reedbeds of *Phragmites communis* and *Typha angustata*, and rich growth of *Nymphaea candida* and *N. stellata* on open water. *Lemna* sp. forms mats over the surface in some areas, while adjacent areas have willow plantations and paddy fields. It harbours a rich diversity of resident and migratory avifaunal species as well as macrophytes of high socio-economic importance. Supplementary food like molluscs, fishes, and insects are also available in plenty. Shallabugh Wildlife Conservation/ Wetland Reserve is one of the very important Wetland Conservation Reserves falling within the River Jhelum basin and plays a significant role as a flood absorption basin, biodiversity conservation site, Eco-tourist destination, and livelihood security for local communities. The average elevation of the Wetland is 1580m AMSL. It serves as an abode to more than four lakh resident and migratory birds of at least 21 species. Due to undesirable and excessive silting/ sedimentation, the very existence of the Wetland is under severe threat. The maximum sediment accumulation share is from Anchar inlets which carry a high suspended load. Continuous siltation has decreased the depth of the wetland accompanied by a decrease in water levels. The willow plantations at places have also added to the siltation and accumulation of nutrients in the wetland and changed its wetland characteristics. Consequent to the high rate of siltation, the Wetland has lost its wetland characteristics to a large extent, and at many places

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 Wildlife Protection J&K Government
Postal address	Office of the Chief Wildlife Warden, Wildlife Protection Department, Police Golf course Near Hotel Grand Palace, Boulevard Road Srinagar 190001

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment, Forests & Climate Change
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	2016
To year	2022

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Shallbugh Wetland Conservation Reserve
Unofficial name (optional)	Shallabugh Rakh

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 Shallabugh wetland is bounded by village Dab in the North, village Shallabugh to the East, village Kreshbal to the west and village Sangam to the south. The boundaries of the proposed Ramsar Site coincides with the boundaries of the State formed wetland conservation reserve, whose boundaries are limited by agricultural fields and dense human population on all sides.

2.2.2 - General location

a) In which large administrative region does the site lie?	The wetland is 18 km from Srinagar, the UT summer capital and located in district Srinagar and District Ganderbal of Jammu & Kashmir on the flood plains of river Jhelum at an altitudinal height of 1580 m asl. 34° 9.663'N 74° 43.457'E
b) What is the nearest town or population centre?	The nearest and the main town and population center is Srinagar and Ganderbal and Wetland is approachable by a motorable road 10 to 5 km away. A total of 15 No of villages having population size >45,000 are located in the fringes within 0.5 -2 Km from the

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):	1675
Area, in hectares (ha) as calculated from GIS boundaries	1685.228

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Indus Himalayan Foothills Ecoregion ID 705
Freshwater Ecoregions of the World (FEOW)	2A North Western Himalaya

Other biogeographic regionalisation scheme

Biogeographic classification of India is the division of India according to biogeographic characteristics. Biogeography is the study of the distribution of species (biology), organisms, and ecosystems in geographic space and through geological time. Most of India falls in the "Indian Subcontinent" bioregion of the Indo-malayan realm, which covers most of India, Pakistan, Bangladesh, Nepal, Bhutan, and Sri Lanka. The Hindu Kush, Karakoram, Himalaya, and Patkai ranges bound the bioregion on the northwest, north, and northeast; these ranges were formed by the collision of the northward-drifting Indian subcontinent with Asia beginning 45 million years ago. The Hindu Kush, Karakoram, and Himalaya are a major biogeographic boundary between the subtropical and tropical flora and fauna of the Indian subcontinent and the temperate-climate Palearctic realm. Kashmir Valley however, as per Fresh Water Ecoregions of the World (FEOW) falls in Indus Himalayan Foothills (Ecoregion ID 705) a River Jehlum Basin Wetland tributary of Indus.

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

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

Hydrological services provided	Shallabugh Wetland plays a major role in the natural control, amelioration or prevention of flooding, It is also important for seasonal water retention for wetlands or other areas of conservation importance downstream. The wetland is important for the recharge of aquifers. A major natural floodplain system.
Other ecosystem services provided	Shallabugh Wetland provides plethora of ecosystem services, these include fish and fiber, water supply, water purification, climate regulation, flood regulation, recreational opportunities. The livelihoods of people living in, and adjoining on the fringes of wetlands depend partially or entirely on wetland ecosystem services.
Other reasons	Shallabugh Wetland is highly productive, support exceptionally large biological diversity and provide a wide range of ecosystem services, such as food and fiber; waste assimilation; water purification; flood mitigation; erosion control; groundwater recharge; microclimate regulation; enhance aesthetics of the landscape; support many significant recreational, social and cultural activities, besides being a part of our cultural heritage. It is vital part of hydrological cycle in the valley. Two perennial stream Sindh Nalla along with water from Anchar Lake feed the wetland. The wetland is drained into the River Jehlum in the North .Adjoining to this wetland is another Ramsar Site 1570 (Hokersar) designating a Ramsar Site will improve interconnectedness and conservation.

Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	The wetlands supports IUCN conservational significant species like Anser erythropus, Aquila heliaca, Aquila nipalensis, Aythya ferina, Columba eversmanni, Gallinago nemoricola, Haliaeetus leucoryphus, Sterna acuticauda, and Streptopelia turtur.
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Criterion 3 : Biological diversity

Justification	The Shallabugh wetland Reserve is a hotspot of biological diversity and is evidently species-rich. It is a center of endemism and contains significant numbers of endemic species. It is a part of the Central Asian Flyway and houses the following species: Anas crecca, Anas platyrhynchos, Aythya nyroca, Circus macrourus, Gallinago media, Icthyophaga humilis, Icthyophaga humilis, Icthyophaga ichthyaetus, Limosa limosa, Phylloscopus tyleri, Sterna aurantia, Streptopelia turtur, and Tadorna ferruginea.
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Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further information	The wetland serves as an important breeding ground for many species of waterbirds like Anas crecca, Anas platyrhynchos, Anser erythropus, Aquila heliacal, Aquila nipalensis, Aquila rapax, Aythya ferina, Aythya nyroca, Circus macrourus, Columba eversmanni, Gallinago media, Gallinago nemoricola, Haliaeetus leucoryphus, Icthyophaga humilis, Icthyophaga ichthyaetus, Limosa limosa, Phylloscopus tyleri, Sterna acuticauda, Sterna aurantia, Streptopelia turtur, and Vanellus vanellus.
End year	2019
Optional text box to provide further information	>1% Asiatic Black Bear, Leopard, Indian Himalayan Wolf, Red Fox, Jackal, Jungle Cat

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								
Birds																	
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"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
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"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Anser erythropus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Vulnerable species.The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Aquila heliaca</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Aquila nipalensis</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Endangered species.The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Aquila rapax</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Vulnerable species.The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Vulnerable species.The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Aythya nyroca</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"/>				NT	<input type="checkbox"/>	<input checked="" type="checkbox"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Circus macrourus</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"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Columba eversmanni</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Vulnerable species.The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Gallinago media</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"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Gallinago nemoricola</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Vulnerable species.The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Haliaeetus leucorhynchus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Endangered species
CHORDATA/AVES	<i>Icthyophaga humilis</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"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Icthyophaga ichthyaetus</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"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this 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	<i>Limosa limosa</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"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Phylloscopus tytleri</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"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Sterna acuticauda</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input type="checkbox"/>		Endangered species. The wetland serves as an important breeding ground for this species.
CHORDATA/AVES	<i>Sterna aurantia</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"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		finds refuge in the wetland to avoid critical and harsh winter conditions in the breeding grounds. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Streptopelia turtur</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"/>		Vulnerable species. The wetland serves as an important breeding ground for this species. Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Tadorna ferruginea</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"/>		Helps in maintaining the biodiversity of the Himalayan region.
CHORDATA/AVES	<i>Vanellus vanellus</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input type="checkbox"/>		The wetland serves as an important breeding ground for this species.

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

Shallbugh Wetland is notified as a Wildlife Conservation reserve and is under the direct administrative control of Wildlife Protection department J&K. The wetland offers conducive habitat conditions for more than 4 lakh waterfowl during the winter season. The marshland supports various ecological and economic services, which include fisheries, food products, freshwater, and purification of water, and contributes to regulating the global climate. The wetland supports a broad range of hydrological functions, for example, regulation of floods, recharge of groundwater, control streamflow, and carbon sequestration.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Lakes and pools >> P: Seasonal/intermittent freshwater lakes	shallabugh	1	1675	Representative

(ECD) Habitat connectivity

Shallabugh Wetland is located in close proximity to already designated Ramsar Site No 1570 i.e Hokersar Wetland Reserve and has a great potential in terms of habitat connectivity.

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfb: Humid continental (Humid with severe winter, no dry season, warm summer)

Climate change posing a great threat to this river basin wetland. The very sustenance of the wetland depend on the climatic pattern and any change to this phenomenon will bring death to the wetland Eco system.

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.

Indus River Basin, Subbasin River Jehlum

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

Please provide further information on the soil (optional)

The alluvial soils are deposited by the action of the river Jehlum and are found in the river channels, floodplains, and lakes of Kashmir including ShallbughWetland. The alluvial soil includes all consolidated fragmented material from the coarsest gravels and sands down to the finest clay and silt-sized particles. In other words, sand, silt, and mud were brought down by river Jehlum in floods and deposited on the temporarily submerged lands in the wetland. The Soil is most productive.

4.4.4 - Water regime

Water permanence

Presence?	
Usually seasonal, ephemeral or intermittent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from precipitation	<input checked="" type="checkbox"/>	No change
Water inputs from surface water	<input checked="" type="checkbox"/>	No change
Water inputs from groundwater	<input checked="" type="checkbox"/>	No change

Water destination

Presence?	
To downstream catchment	No change
Feeds groundwater	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 wetland is fed by the perennial stream of the Nallah Sindh and streams from Anchar Lake. The water table fluctuates seasonally and falls in late summer and reaches its lowest in autumn, then begins to rise again in early winter.

(ECD) Connectivity of surface waters and of groundwater Connectivity of surface waters and of groundwater (ECD) Integral part of river system

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):

The rate of siltation has been estimated as 3.33 acre per ft. per year. Siltation has already claimed about 50% of wetland. The heavy siltation load from the Sindh Nallah and Anchar Lake catchment has rendered most parts of the wetlands into landmass and marshes.

(ECD) Water turbidity and colour Higher turbidity content colour changes bluish to hazel 15.81±1.97 N.T.U

(ECD) Light - reaching wetland 40-50%

(ECD) Water temperature -2.2 to 20°C

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):

7.45±0.23

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

(ECD) Dissolved gases in water

COD 293.33±4.08 BOD 194.51±5.79 MGL

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

Mesotrophic

Oligotrophic

Dystrophic

Unknown

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

The agricultural fields near Shallabugh wetland use high doses of both organic and inorganic fertilizers for maximizing the yield. Farmers who have apple orchards also use lots of agrochemicals including synthetic fertilizers much above the permissible limits per acre. Shallabugh wetland acts like a sink to these excessive doses of nutrient ions due to which cultural eutrophication of the wetland is taking place leading to growth and multiplication of macrophytes as well as microphytes.

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 agricultural fields near Shallabugh wetland use high doses of both organic and inorganic fertilizers for maximizing the yield. Farmers who have apple orchards also use lots of agrochemicals including synthetic fertilizers much above the permissible limits per acre. Shallabugh wetland acts like a sink to these excessive doses of nutrient ions due to which cultural eutrophication of the wetland is taking place leading to growth and multiplication of macrophytes as well as microphytes.

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)	Medium
Fresh water	Water for irrigated agriculture	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Medium
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climatic processes	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Medium
Scientific and educational	Educational activities and opportunities	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	Carbon storage/sequestration	High
Pollination	Support for pollinators	Medium

Optional text box to provide further information

Shallbugh wetland provides an over-wintering resort to about 4 lakh waterbirds from their breeding grounds in the Palearctic region extending from north Europe to Central Asia. Shallbugh decreases flooding, remove pollutants from water, recharge groundwater, protect embankments, provide habitat for wildlife, and perform other various important functions.

Other ecosystem service(s) not included above:

Shallbugh wetland is a critical source of livelihood and job opportunities for a large number of populations in the form of fishing, farming, tourism, etc. also provide safe refuge to native vegetation and wild animals. In the Shallbugh ecosystem, nutrients are recycled between the producers, consumers, and decomposers. Oxygen and carbon dioxide are recycled between the plants and animals and water is cycled through the water cycle.

Within the site: 10000

Outside the site: 20000

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

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 checked="" type="checkbox"/>

Other

Category	Within the Ramsar Site	In the surrounding area
Commoners/customary rights	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

- a) The site is a notified wildlife protected area declared as Wildlife Conservation Reserve and its ownership vests with the Government of UT of J&K (Department of Wildlife Protection.
b) Surrounding Zone of influence largely comprise village settlements, agricultural fields, and orchards besides Anchar Lake.

5.1.2 - Management authority

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

Department of Wildlife Protection, Government of UT of Jammu & Kashmir

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

Rashid Y Naqash, Regional Wildlife Warden Kashmir Region, Department of Wildlife Protection

Postal address:

Department of Wildlife Protection, Near Hotel Grand Palace, Police Golf Course, Boulevard Road, Srinagar, Kashmir UT of Jammu and Kashmir 190001 INDIA

E-mail address:

rwlwkashmir@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	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Medium impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water abstraction	Medium impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Canalisation and river regulation	Medium impact		<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Wood and pulp plantations	Medium impact		<input checked="" 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"/>

Human intrusions and disturbance

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

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified/others	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation clearance/ land conversion	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	High impact		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Habitat shifting and alteration	High impact		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please describe any other threats (optional):

Due to undesirable and excessive silting/ sedimentation, the very existence of the Wetland is under severe threat. The maximum sediment accumulation share is from Nallah Sindh and streams of Anchar Lake carries high suspended silt load directly into the wetland during high flows. Continuous siltation has decreased the depth of the wetland accompanied by a decrease in water levels. The willow and popular plantations at places have also added to the siltation and accumulation of nutrients in the wetland and have brought a change in wetland characteristics. Besides illegal grazing of the livestock, paddy cultivation, and use of fertilizers, Shallabugh Wetland has lost its wetland has changed its physical profile into a landmass along the fringes, thereby shrunken and squeezed the wetland from all sides. This has resulted in the loss of habitat conditions to offer a suitable site for visiting migratory birds (Winter/ Summer migrants) and for resident birds as well

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Wildlife Conservation Reserve	Shallabugh Wetland Reserve		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Shallabugh Reserve		partly

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
Habitat manipulation/enhancement	Partially implemented
Improvement of water quality	Proposed
Hydrology management/restoration	Partially implemented
Land conversion controls	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Management of water abstraction/takes	Partially implemented
Regulation/management of wastes	Partially implemented
Harvest controls/poaching enforcement	Partially implemented

Other:

The major threats to Shallabugh wetland include increased siltation, eutrophication due to run-off from catchments, agricultural conversion, receding open water areas as a result of expanding reed beds, construction of canals, weirs, illegal encroachments by the encroachers.

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? No need identified

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Water quality	Implemented
Birds	Implemented

Research, Survey, and Census, water quality monitoring, fitting PTT, and ringing of waterfowl

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- a) Study on effect of seasonal variations on water quality of Shallabugh wetland Ishrat Bashir, FA Lone, Haleem Bano, Nageena Nazir, NA Kirmani, and FA Mohi-u-din
- b) Annual Plans of Wildlife Protection Department
- c) Draft Management Action Plan
- d) Bird Diversity in Shallabugh Wetland (Kashmir), India A. Hai¹ , M. Jeelani¹ , S. Patil² and R. Ahmad.
- e) The ecology of macrozoobenthos in Shallabugh wetland of Kashmir Himalaya, India Sameera Siraj¹ *, A. R. Yousuf¹ , F. A. Bhat² and M. Parveen³

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

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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

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v. site management plan

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vi. other published literature

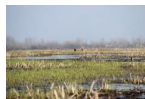
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6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



Shallabugh Wetland (Rashid Naqash, 05-03-2017)



Shallabugh Wetland (Rashid Naqash, 05-03-2017)



Shallabugh Wetland (Rashid Naqash, 05-03-2017)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation