



Ramsar Information Sheet

Published on 30 January 2026

India

Chhari Dhand



Designation date	16 June 2025
Site number	2588
Coordinates	23°34'39"N 69°24'24"E
Area	22 700,00 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

Wetlands are among the most diverse and dynamic ecosystems, serving as vital transitions between land and water, characterized by the presence of water, either seasonally or permanently. Chhari Dhand, located in the Banni grasslands of Kachchh, Gujarat, is one such seasonal wetland. The name "Chhari" refers to salt-affected areas, while "Dhand" signifies a shallow wetland with vast water spread. During the monsoon, Chhari Dhand gets inundated with rainwater, transforming into a shallow saline wetland as the water gradually evaporates. It spans approximately 22,700 hectares and plays a crucial role in supporting a diverse array of flora and fauna. During years of good rainfall, Chhari Dhand becomes a wintering ground for vast flocks of migratory birds, including Common Cranes, with numbers reaching between 25,000 to 40,000, and other species such as Dalmatian and Rosy Pelicans, raptors, waterfowl, storks, and cranes. However, the wetland faces significant challenges due to human activities, including the construction of check dams, roads, and bunds, which have altered the natural water flow. In addition, siltation caused by windblown sand and the invasion of *Prosopis juliflora*, an aggressive alien species, have contributed to the gradual degradation of the wetland. Despite these pressures, the Chhari Dhand wetland remains a crucial habitat for migratory and resident bird species, emphasizing the need for its conservation and scientific management. Effective conservation strategies are essential to restore the hydrological balance, manage invasive species, and promote sustainable use, ensuring the long-term health of this ecologically valuable region.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency	Gujarat Forest Department
Postal address	CWLW & PCCF(WL) ,Gujarat Forest Department , Aranya Bhawan , Sec-10 , Gandhinagar-382010, Gujarat state

National Ramsar Administrative Authority

Institution/agency	Ministry of Environment, Forest & Climate Change
Postal address	Office of the Secretary, Ministry of Environment, Forest and Climate Change, Government of India, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi - 110 003 INDIA

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

From year	2017
To year	2024

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Chhari Dhand
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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 boundary of the site corresponds to that of the Chharidhandh Conservation Reserve (also referred to as Chhari-Dhandh), a protected wetland area in Kachchh district, Gujarat, officially notified as a Conservation Reserve in 2008 under the Wildlife Protection Act (establishment date: 2008) to conserve its unique seasonal wetland ecosystem and associated biodiversity. The site lies in a strategic region with the Great Rann of Kachchh to the north, the Banni Grassland to the west and south, and the Dhinodhar Hills to the east, positioning it at the interface of saline flats, grassland, and hill-slope ecologies. The northern boundary is defined by the village limits of Sirva, Bhagadia, and Bhuj; the eastern boundary by the open wastelands of Sukha Rann Paiki and the village boundary of Nirona (Taluka Nakhatrana); the southern boundary by the villages of Chhari, Fulai, Jhalu, Dador, Vanga, Kharadia, and Biber (Taluka Nakhatrana); and the western boundary by the village boundary of Nera (Taluka Lakhpat). Within these limits, the reserve encompasses a mosaic of habitat types, including seasonal shallow wetlands with open water, emergent marsh vegetation, shoreline mudflats, and adjacent grassland and scrubland areas, which provide critical breeding, foraging, and stop-over habitat for diverse waterbirds, migratory birds, raptors, and other wildlife.

2.2.2 - General location

a) In which large administrative region does the site lie?	The area falls in administrative jurisdiction of Kachchh District of Gujarat.
b) What is the nearest town or population centre?	Nearest town is Nakhtarana

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):	22700
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Area, in hectares (ha) as calculated from
GIS boundaries

22700.262

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	3 -The Indian Desert

Other biogeographic regionalisation scheme

Bio-geographically, Kachchh is classified as per the following classification made by Wildlife Institute of India, Dehra Dun (Rodgers and Panwar, 1988).

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

Chhari Dhand provides a range of hydrological services characteristic of large seasonal wetlands in semi-arid landscapes. It plays a significant role in surface-water retention by capturing monsoonal runoff and moderating flash-flood conditions, contributes to groundwater recharge through slow percolation into underlying aquifers, and supports natural sediment trapping and deposition, which help maintain downstream water quality. The seasonal water spread regulates local micro-hydrology, influencing soil moisture regimes and sustaining surrounding land systems during dry periods. The wetland is fed by seasonal and intermittent rivers and streams and is hydrologically unique within the Semi-Arid Biogeographical Zone of India, being the largest natural wetland of its type in this region. Its origin through geological processes, including the gradual uplift of an ancient seabed, has created distinctive hydrological conditions that result in pronounced intra- and inter-annual variation in water level, salinity, pH, and inundation patterns, distinguishing Chhari Dhand from other wetlands in the zone.

Other ecosystem services provided

Chhari Dhand, a significant seasonal wetland in the Banni grasslands of Kachchh, provides a wide range of ecosystem services beyond its well known role as a vital bird habitat. The wetland plays an essential hydrological function by acting as a natural reservoir that stores monsoon runoff, gradually releasing moisture into the surrounding landscape and helping maintain groundwater levels in an otherwise arid region. This seasonal water retention supports nearby pastoral communities by ensuring the availability of water for livestock during dry months. Chhari-Dhandh also contributes to soil formation and nutrient cycling, as periodic flooding deposits mineral-rich silt that enhances soil fertility and supports the growth of grasses relied upon by Maldhari pastoralists. The wetland's expansive mudflats and surrounding grasslands form a natural carbon sink, sequestering carbon in their soils and vegetation and thereby helping moderate local climate conditions. In addition to ecological and regulatory benefits, Chhari Dhand provides important cultural ecosystem services. It is cherished by local communities for its landscape beauty, traditional herding practices, and its significance in regional folklore. Its popularity among birdwatchers, researchers, and photographers also supports ecotourism, which contributes to the local economy while encouraging conservation awareness. The wetland sustains diverse flora and fauna from amphibians and small mammals to rare and migratory bird species creating a dynamic ecological network that enhances biodiversity resilience in the harsh desert environment of Kachchh. Furthermore, the presence of healthy wetland vegetation helps control dust storms and wind erosion, improving air quality for nearby settlements. Its ecological richness attracts scientific research, supporting education and environmental monitoring that can guide sustainable land-use planning in the region. Together, these diverse ecosystem services reveal that Chhari Dhand is far more than a seasonal waterbody; it is an ecological, cultural, and economic lifeline whose conservation is essential for sustaining the unique desert-grassland mosaic of Kachchh.

☒ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

The IUCN red data birds observed in the vicinity of Chhari dhand wetland include Indian bdellium-tree (CR), White-rumped Vulture (CR), Indian Vulture (CR), Indian skimmer(EN), White-naped tit (VU), Curlew sandpiper (VU) Macqueen's bustard(VU), Sociable Lapwing (CR).

☒ Criterion 3 : Biological diversity

Justification

Chhari Dhand Wetland, situated in the Kutch region of Gujarat, supports a highly diverse assemblage of flora and fauna characteristic of saline and semi-arid wetland ecosystems, making it ecologically significant under Ramsar Criterion 3. The wetland exhibits distinct vegetation zones shaped by gradients of salinity, hydrology, and soil moisture, which together sustain specialized and site-dependent biological communities.

The low-lying saline zones are dominated by salt-tolerant halophytic vegetation, particularly *Suaeda nigra*, a characteristic species of inland saline wetlands that provides important foraging habitat for herbivores and ground-feeding birds. Waterlogged and seasonally inundated areas support emergent sedge and reed communities.

Saline soils across the wetland support characteristic halophyte assemblages, including *Tamarix* and *Limonium*, which are well adapted to high salinity and periodic flooding and are indicative of arid-zone saline wetlands. Along the southern boundary adjoining the Banni grasslands, vegetation transitions into xerophytic and semi-arid scrub communities, reflecting drier ecological conditions and enhancing habitat heterogeneity within the wetland landscape.

The Dhinodhar hill complex within the wetland supports medicinally and ecologically important plant species such as *Commiphora wightii* and *Sterculia urens*. These regionally significant species are adapted to rocky and arid habitats and contribute to the overall ecological diversity and representativeness of the site.

Chhari Dhand is particularly notable for its avian diversity, functioning as a critical wintering and staging ground for migratory birds. The wetland supports large congregations of Common Cranes (*Grus grus*), with wintering numbers exceeding 30,000 individuals, highlighting its importance for species dependent on saline wetlands for foraging on sedge tubers and associated vegetation. The presence of a diverse raptor assemblage and a representative community of waterfowl reflects a well-structured trophic system. The wetland supports a complex food web in which halophytic vegetation and aquatic macrophytes sustain invertebrates, fish, and waterfowl, which in turn support higher trophic levels such as raptors and carnivorous mammals. Grazing by large herbivores further influences vegetation dynamics and habitat structure.

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

Optional text box to provide further information

Chhari Dhand wetland is a winter home of large number of migratory and resident birds. The wetland is a strategically located at on the migratory route birds. Even in the case of poor monsoon the wetland gets water to meet the minimal requirement of the water & food of waterfowl.

The wetland is lifeline for a satellite population of many animals who shift to this place in dry season during summer when other water bodies are dry. Globally threatened species like Marbled Teal (NT), sociable Lapwing (CR), Lesser Flamingo (NT) take refuge during the migration and this is very important place to hold during return migration.

☒ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers

111449 approx

Start year

2017

End year

2024

Source of data:

Forest Department Gujarat and ebird

Optional text box to provide further information

The site regularly supports waterbird numbers far exceeding the 20,000-bird threshold. Based on monitoring data from 2017 to 2024, the average annual waterbird count is 111449 individuals, recorded through systematic surveys conducted by the Gujarat Forest Department. During the most recent Winter Bird Count in December 2024, approximately more than 70,000 waterbirds were recorded at Chhari Dhand, confirming continued high usage of the wetland by migratory and resident waterbirds. The species recorded include large aggregations of ducks, geese, cranes, waders, herons, storks, ibises, spoonbills, pelicans, grebes, terns, and other water-associated birds.

☒ Criterion 6 : >1% waterbird population

Optional text box to provide further information

Chhari Dhand form one of the most important bird areas in the desert ecosystems of India. This wetland supports 1% of the individuals in a population of many species, with its huge numbers of Ducks, Waders and Cranes, many far Exceeding their 1% population threshold numbers.

Optional text box to provide further information

Chhari Dhand is home to a variety of non-avian species that contribute significantly to the ecological balance of the region. Notably, Striped Hyena play crucial roles as scavengers, helping regulate carcass removal and maintaining the balance of smaller predator populations. These species are integral to the ecosystem, as they clean up the environment and reduce the risk of disease by consuming carrion. The Jungle Cat, another key predator in the area, controls populations of rodents and other small mammals, thereby supporting the stability of local food webs.

Similarly, the Indian Fox serves as an important small predator, regulating insect and rodent populations, which in turn influences both plant and animal diversity. The Desert Fox, adapted to arid conditions, also contributes to ecosystem functioning by managing small mammal populations and shaping prey community structure. The Golden Jackal, an opportunistic feeder, aids in nutrient cycling by scavenging carcasses and preying on smaller animals, thus helping regulate populations of smaller predators and herbivores.

The Desert Gerbil, though small in size, is a significant prey species for larger predators such as foxes and jackals, and plays an important role in maintaining the food chain of the region's desert and semi-desert ecosystems. Together, these species help regulate prey populations, support nutrient cycling, and maintain the stability of the food web.

The diverse presence of these non-avian species underscores the ecological importance of Chhari Dhand, highlighting its role as a critical habitat for the survival and well-being of various animal populations. Collectively, these species contribute to more than 1% of the non-avian animal population in the region, and their ecological functions are indispensable for sustaining biodiversity and maintaining the intricate relationships within this wetland ecosystem.

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	Commiphora wightii	☒	☐	☐	CR	☐		Listed as Critically Endangered due to overexploitation and habitat loss; presence enhances conservation value of the site.
TRACHEOPHYTA/ MAGNOLIOPSIDA	Cressa cretica	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
TRACHEOPHYTA / LILIOPSIDA	<i>Cynodon dactylon</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / LILIOPSIDA	<i>Dactyloctenium aegyptium</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / LILIOPSIDA	<i>Desmostachya bipinnata</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / LILIOPSIDA	<i>Dichanthium annulatum</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / LILIOPSIDA	<i>Eragrostis ciliaris</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / LILIOPSIDA	<i>Eragrostis tenellula</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Grewia tenax</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Heliotropium ovalifolium</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Indigofera cordifolia</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Limonium stocksii</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Portulaca oleracea granatus</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Prosopis chilensis</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Salvadora oleoides</i>	☐	☒	☐	DD	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Salvadora persica</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Senegalia senegal</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Sterculia urens</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Suaeda nigra</i>	☐	☒	☐		☐		<i>Suaeda fruticosa</i> is a halophytic shrub characteristic of saline and coastal wetland ecosystems in the region. The species depends on saline soil and seasonal waterlogged conditions provided by the Site, which supports its growth and reproduction. Its presence indicates the existence of a specialized habitat type that is relatively uncommon in the surrounding landscape. By sustaining this habitat, the Site plays a critical role in maintaining regional biodiversity and ecological processes associated with saline wetlands.

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Suaeda nudiflora</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Tamarix indica</i>	☐	☒	☐	LC	☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Taverniera cuneifolia</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Tecticornia indica ciliolata</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.
TRACHEOPHYTA / MAGNOLIOPSIDA	<i>Zornia diphylla</i>	☐	☒	☐		☐		The wetland supports a representative assemblage of halophytic, arid grassland, and desert scrub vegetation characteristic of saline wetlands of the Great Rann of Kutch, contributing significantly to regional plant diversity.

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	<i>Lissemys punctata</i>	☒	☒	☐	☐	☐	☐	☐	☐	100	2024		VU	☐	☐		The wetland qualifies under Ramsar Criterion 4 as it provides important habitat for the Indian Flapshell Turtle (<i>Lissemys punctata</i>) during critical stages of its life cycle, including feeding, breeding, nesting, and refuge during dry periods, thereby supporting the survival of this wetland-dependent species.
CHORDATA / REPTILIA	<i>Saara hardwickii</i>	☒	☐	☐	☐	☐	☐	☐	☐	50	2024		VU	☐	☐		
Birds																	
CHORDATA / AVES	<i>Actitis hypoleucos</i>	☐	☐	☐	☐	☐	☒	☐	☐	52	2024		LC	☐	☐		
CHORDATA / AVES	<i>Anas acuta</i>	☐	☒	☒	☐	☐	☐	☐	☐	2500	2024	1	LC	☐	☐		Chhari Dhand Wetland supports 2,500 Northern Pintails during the wintering season, providing essential foraging, roosting, and sheltering habitat. The site serves as a critical refuge during migration and adverse seasonal conditions, supporting a key stage in the species' life cycle.

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>Anhinga melanogaster</i>	☐	☒	☐	☐	☐	☒	☐	☐	7	2024		LC	☐	☐		Chhari Dhandh Wetland supports the Indian Darter (<i>Anhinga melanogaster</i>) during critical life-cycle stages. Shallow waters provide foraging habitat, while surrounding trees offer roosting sites, fulfilling Ramsar Criterion 4.
CHORDATA / AVES	<i>Anser anser</i>	☐	☐	☒	☐	☐	☐	☐	☐	700	2024	1	LC	☐	☐		
CHORDATA / AVES	<i>Anser indicus</i>	☐	☒	☒	☐	☐	☐	☐	☐	1000	2024	1	LC	☐	☐		Chhari Dhandh Wetland supports the Bar-headed Goose (<i>Anser indicus</i>) during critical life-cycle stages. The wetland's shallow waters and adjacent grasslands provide essential feeding and resting habitat during migration, thereby fulfilling Ramsar Criterion 4.
CHORDATA / AVES	<i>Aquila clanga</i>	☒	☐	☐	☐	☐	☐	☐	☐	4	2024			☐	☒		
CHORDATA / AVES	<i>Aquila nipalensis</i>	☒	☐	☐	☐	☐	☐	☐	☐	15	2024	0.06	EN	☐	☐		
CHORDATA / AVES	<i>Aythya ferina</i>	☒	☐	☒	☐	☐	☐	☐	☐	1049	2024	1	VU	☐	☐		
CHORDATA / AVES	<i>Aythya fuligula</i>	☐	☒	☒	☐	☐	☐	☐	☐	1000	2024	1	LC	☐	☐		The Tufted Duck is a migratory winter visitor to Chhari Dhandh. The wetland provides critical life-cycle support during the non-breeding (wintering) period, including: Open water for roosting Adequate prey for feeding Refuge from disturbance and harsh conditions in the surrounding arid landscape
CHORDATA / AVES	<i>Aythya nyroca</i>	☒	☒	☐	☐	☐	☐	☐	☐	490	2024		NT	☐	☒		The wetland regularly supports <i>Aythya nyroca</i> during critical stages of its life cycle, particularly as an important wintering and stopover site. The site provides suitable open water, submerged vegetation, and undisturbed foraging and roosting habitats, which are essential for the species' survival during migration and winter. Given the species' Near Threatened (NT) status, the role of the site in sustaining individuals during these vulnerable periods qualifies it under Ramsar Criterion 4.
CHORDATA / AVES	<i>Calidris ferruginea</i>	☒	☐	☐	☐	☐	☐	☐	☐	200			VU	☐	☐		
CHORDATA / AVES	<i>Calidris pugnax</i>	☐	☐	☒	☐	☐	☐	☐	☐	1200	2024	1	LC	☐	☐		
CHORDATA / AVES	<i>Charadrius alexandrinus</i>	☐	☐	☒	☐	☐	☐	☐	☐	1260	2024	1	LC	☐	☐		
CHORDATA / AVES	<i>Charadrius mongolus</i>	☒	☐	☐	☐	☐	☐	☐	☐	50	2024		EN	☐	☐		
CHORDATA / AVES	<i>Chlamydotis macqueenii</i>	☒	☐	☐	☐	☐	☐	☐	☐	4	2024		VU	☒	☐		
CHORDATA / AVES	<i>Dendrocygna javanica</i>	☐	☐	☐	☐	☐	☒	☐	☐	300	2024	1.32	LC	☐	☐		
CHORDATA / AVES	<i>Dromas ardeola</i>	☐	☐	☒	☐	☐	☐	☐	☐	1250	2024	1.1	LC	☐	☐		

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>Fulica atra</i>	☐	☒	☒	☐	☐	☐	☐	☐	3000	2024	1	LC	☐	☐		The wetland supports a significant wintering population of Eurasian Coot (<i>Fulica atra</i>), with approximately 3,000 individuals recorded. It provides essential habitat during a critical stage of the species' annual life cycle, offering suitable conditions for feeding, roosting, and refuge. The regular use of the site by large congregations of <i>Fulica atra</i> highlights its importance during migration and wintering, thereby meeting the requirements of Ramsar Criterion 4.
CHORDATA / AVES	<i>Galerida cristata</i>	☐	☒	☒	☐	☐	☐	☐	☐	300	2024	1.3	LC	☐	☐		Chhari Dhandh Wetland supports the Crested Lark (<i>Galerida cristata</i>) during critical life-cycle stages, including foraging and breeding. Open grasslands and wetland margins provide essential food and nesting sites, thereby fulfilling Ramsar Criterion 4.
CHORDATA / AVES	<i>Grus antigone</i>	☒	☐	☐	☐	☐	☐	☐	☐	20	2024	0.08	VU	☐	☐		
CHORDATA / AVES	<i>Grus grus</i>	☐	☐	☒	☐	☒	☒	☐	☐	30000	2024	4.3	LC	☐	☐		
CHORDATA / AVES	<i>Gyps bengalensis</i>	☒	☐	☐	☐	☐	☐	☐	☐	2	2024		CR	☐	☐		
CHORDATA / AVES	<i>Gyps indicus</i>	☒	☐	☐	☐	☐	☐	☐	☐	3	2024		CR	☐	☐		
CHORDATA / AVES	<i>Mareca strepera strepera</i>	☐	☐	☐	☐	☐	☒	☐	☐	523	2024			☐	☐		
CHORDATA / AVES	<i>Marmaronetta angustirostris</i>	☒	☒	☐	☐	☐	☐	☐	☐	10	2024		NT	☐	☒		The wetland qualifies under Ramsar Criterion 4 as it provides important wintering and stopover habitat for the Near Threatened Marbled Teal. The site offers suitable shallow saline/brackish waters and vegetation that support the species during critical periods of seasonal movement and adverse conditions, thereby contributing to its survival.
CHORDATA / AVES	<i>Microcarbo niger</i>	☐	☐	☒	☐	☐	☒	☐	☐	2584	2024	1	LC	☐	☐		The wetland regularly supports large congregations of waterbirds, including cormorants (<i>Phalacrocorax</i> spp.). During waterbird census and monitoring, substantial numbers of cormorants were recorded, contributing significantly to a total waterbird population exceeding 20,000 individuals. Hence, the site qualifies under Ramsar Criterion 5
CHORDATA / AVES	<i>Pelecanus crispus</i>	☒	☐	☐	☐	☐	☐	☐	☐	5000	2024	1	NT	☒	☒		
CHORDATA / AVES	<i>Pelecanus onocrotalus</i>	☐	☐	☒	☐	☐	☐	☐	☐	10000	2024	10	LC	☐	☐		The wetland qualifies under Ramsar Criterion 6 as it regularly supports 10,000 Great White Pelicans (<i>Pelecanus onocrotalus</i>), which is approximately 10% of the biogeographic population and far exceeds the 1% threshold. This demonstrates the international importance of the site for the conservation of this species, particularly as a key wintering and foraging habitat.
CHORDATA / AVES	<i>Phoeniconaias minor</i>	☐	☒	☒	☐	☐	☒	☐	☐	20000	2024	1.5	NT	☐	☐		The wetland provides essential habitat for critical life-cycle stages such as breeding, wintering, migration stopover, foraging, and refuge during periods of environmental stress. Seasonal inundation and sustained water availability support waterbirds, reptiles, amphibians, and mammals in an otherwise arid and saline landscape.

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>Phoenicopterus roseus</i>	☐	☒	☐	☐	☐	☒	☐	☐	32000	2024	16	LC	☐	☐		he wetland provides important habitat for Greater Flamingo (<i>Phoenicopterus roseus</i>) during a critical stage of its annual life cycle, supporting approximately 2,000 individuals during the wintering season. The availability of suitable shallow saline waters and feeding areas makes the site an important refuge during migration and wintering, thereby meeting the requirements of Ramsar Criterion 4.
CHORDATA / AVES	<i>Platalea leucorodia</i>	☐	☐	☐	☐	☐	☒	☐	☐	100	2024		LC	☐	☐		
CHORDATA / AVES	<i>Podiceps cristatus cristatus</i>	☐	☒	☐	☐	☐	☒	☐	☐	150	2024			☐	☐		The wetland supports the Great Crested Grebe (<i>Podiceps cristatus</i>) throughout the year, functioning as an important breeding, feeding, moulting and refuge site. The availability of open water, suitable nesting habitat and abundant prey enables the species to complete multiple critical stages of its life cycle at the site. The wetland also provides a safe refuge during periods of environmental stress, thereby meeting Ramsar Criterion 4
CHORDATA / AVES	<i>Porphyrio porphyrio poliocephalus</i>	☐	☒	☐	☐	☐	☒	☐	☐	60	2024			☐	☐		Chhari Dhandh Wetland supports the Grey-headed Swamphen (<i>Porphyrio porphyrio poliocephalus</i>) during critical life-cycle stages. Shallow waters with emergent vegetation provide essential foraging habitat, while dense vegetation along water edges offers roosting and nesting sites, fulfilling Ramsar Criterion 4.
CHORDATA / AVES	<i>Recurvirostra avosetta</i>	☐	☐	☐	☐	☐	☒	☐	☐	150	2024		LC	☐	☐		
CHORDATA / AVES	<i>Spatula clypeata</i>	☐	☐	☒	☐	☐	☐	☐	☐	1000	2024	1	LC	☐	☐		
CHORDATA / AVES	<i>Sterna aurantia</i>	☒	☐	☐	☐	☐	☐	☐	☐	100	2024		VU	☐	☐		
CHORDATA / AVES	<i>Tachybaptus ruficollis</i>	☐	☒	☐	☐	☐	☒	☐	☐	60	2024		LC	☐	☐		Chhari Dhandh Wetland supports the Little Grebe (<i>Tachybaptus ruficollis</i>) during critical life-cycle stages, particularly breeding. Seasonal inundation creates shallow open water and emergent vegetation suitable for nesting, feeding, and chick rearing. The availability of prey and sheltered microhabitats during the breeding season makes the wetland an important refuge for the species, meeting the requirements of Ramsar Criterion 4.
CHORDATA / AVES	<i>Tringa totanus</i>	☐	☐	☒	☐	☐	☐	☐	☐	1000	2024	1	LC	☐	☐		
CHORDATA / AVES	<i>Vanellus gregarius</i>	☒	☒	☐	☐	☐	☐	☐	☐	25	2024		CR	☐	☐		The wetland qualifies under Ramsar Criterion 4 as it provides important stopover and wintering habitat for the Critically Endangered Sociable Lapwing during seasonal migration, supporting the species during a critical stage of its life cycle.

1) Percentage of the total biogeographic population at the site

The Banni Grasslands and Chhari Dhand Wetland Complex in Kutch constitute an important wintering region for large congregations of waterbirds, including significant numbers of Common Crane (*Grus grus*). Earlier studies reported peak wintering populations of approximately 70,000 cranes, with around 40,000 individuals recorded in particularly favourable monsoon years (Tiwari & Rahmani 1997, 2002). The site continues to support substantial numbers of this species, with recent winter counts confirming their regular use of the wetland and surrounding grassland landscape. This highlights the ongoing importance of the area for the West Siberian and Kazakh population of the Common Crane, which winters primarily in India, Afghanistan, and Iran (Wetlands International 2002).

The region also supports several globally threatened and significant species associated with desert and arid grassland ecosystems. The White-Naped Tit (*Macholophus nuchalis*), a globally Near threatened species, inhabits scrub forests along the margins of the Banni Grasslands (Tiwari & Rahmani 1996). The Grey Hypocolius (*Hypocolius ampelinus*) is a regular winter visitor, occurring annually in fluctuating numbers. The Indian Skimmer (*Rynchops albicollis*), a species of conservation concern, has been recorded in the area during surveys conducted by the Bombay Natural History Society (Tiwari & Rahmani 1997). The Vulnerable Marbled Teal (*Marmaronetta angustirostris*) has also been observed, with earlier records noting groups that represented a notable proportion of the South Asian population (Akhtar et al. 1992).

The broader landscape of Banni and Chhari Dhand continues to hold high avian diversity, with multiple globally threatened and Near Threatened species regularly recorded. Large congregations of ducks, waders, cranes, pelicans, storks, and ibises well above their respective 1% population thresholds strengthen the site's qualification under BirdLife International criteria A4i, A4iii, and A3. The site falls within the Saharo-Sindian Desert Biome (Biome-13) while also supporting species associated with Biome-11, with historically 24 of the 59 Indian Biome-11 species documented from this region.

Given its ecological diversity, high waterbird numbers, and presence of multiple globally important species, the Banni Grasslands Chhari Dhand Wetland Complex remains one of the most significant bird habitats within India's desert ecosystem.

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

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Reptiles	☒		

[Optional text box to provide further information](#)

The ecological community of the site is characterized by a naturally occurring assemblage of wetland and arid-grassland species that interact within a shared environment. These communities include aquatic and semi-aquatic organisms, as well as species adapted to saline flats, grasslands, and scrub habitats. Of particular note is the presence of the Spiny-tailed Lizard (*Saara hardwickii*), an important component of the arid-zone ecosystem. This species plays a key ecological role through its herbivorous feeding habits and burrowing behavior, which contributes to soil turnover and provides microhabitats for other small organisms. The ecological communities within the site function relatively independently yet remain interconnected through shared resources, hydrology, and trophic interactions, reflecting the natural diversity of the wetland–grassland landscape.

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

4.1 - Ecological character

The Great Rann of Kachchh (GRK) and Little Rann of Kachchh (LRK) together form one of the largest seasonal wetland complexes in India, with water depths ranging from 0.5 to 1.5 meters during the monsoon season. These wetlands occupy a significant portion of the landscape and support vast expanses of flooded areas that are crucial for sustaining diverse flora and fauna. During favorable monsoon years, the wetlands form extensive water bodies that provide essential habitat for millions of migratory and resident waterbirds, including lesser and greater flamingoes, waders, waterfowl, and cranes such as the common and demoiselle cranes.

The GRK is characterized by flat saline plains interspersed with elevated areas known locally as beyts, which add structural heterogeneity to the landscape and support unique floral and faunal assemblages. These saline flats, seasonal waterbodies, and elevated beyts together create a dynamic wetland ecosystem that supports both aquatic and terrestrial species. The flooded areas, or dhands, serve as key feeding and breeding grounds for birds and provide refugia for several non-avian species, contributing to the ecological integrity of the site.

The Banni grasslands, adjacent to the Rann, form an elevated matrix with intermittent depressions that retain water seasonally, complementing the wetland habitats of the GRK and LRK. This mosaic of saline plains, seasonal wetlands, and grassland depressions defines the ecological character of the Site, sustaining its high biodiversity and maintaining the natural processes critical for wetland functioning.

Overall, the Site represents a globally significant wetland ecosystem, combining extensive seasonal waterbodies, saline flats, and grassland depressions, which together support a rich diversity of birds, mammals, and plant species, and maintain essential ecological processes such as nutrient cycling, breeding, and migratory stopover habitats.

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 > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks	Chhari Dhand	1	22700	Unique

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
Not applicable	

(ECD) Habitat connectivity

Chhari Dhand's habitat connectivity, especially with nearby Banni Grasslands and seasonal water channels, is vital for migratory birds and local wildlife, yet faces challenges from human activities, underscoring the need for conservation efforts.

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	<i>Aeluropus lagopoides</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Capparis decidua</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Carex pseudocyperus</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Cenchrus setigerus</i>	
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Chenopodium sandersii</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Chloris flagellifera</i>	
ASCOMYCOTA/SORDARIOMYCETES	<i>Claviceps nigricans</i>	
TRACHEOPHYTA/LILIOPSIDA	<i>Fimbristylis tetragona</i>	

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Prosopis juliflora</i>	Actual (major impacts)

Optional text box to provide further information

Despite its significance, Chhari Dhand faces challenges like habitat degradation due to construction activities, invasive plant species like *Prosopis juliflora*, and reduced water inflow. Scientific management and conservation efforts are crucial to protect this unique ecosystem and its vibrant tapestry of plant and bird life. Understanding the intricate zonation and plant adaptations will be vital for developing effective strategies to restore native vegetation and ensure the long-term health of Chhari Dhand Wetland.

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range / endemism/other
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Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Acridotheres ginginianus</i>				
CHORDATA/AVES	<i>Alaemon alaudipes</i>				
CHORDATA/AVES	<i>Anas crecca</i>				
CHORDATA/MAMMALIA	<i>Apodemus draco</i>				
CHORDATA/AVES	<i>Ardea alba</i>				
CHORDATA/AVES	<i>Ardea purpurea</i>				
CHORDATA/AVES	<i>Bubulcus ibis</i>				
CHORDATA/AVES	<i>Calandrella brachydactyla</i>				
CHORDATA/AVES	<i>Calidris minuta</i>				
CHORDATA/AVES	<i>Calidris temminckii</i>				
CHORDATA/AVES	<i>Chroicocephalus ridibundus</i>				
CHORDATA/AVES	<i>Circus macrourus</i>				
CHORDATA/AVES	<i>Clamator jacobinus</i>				
CHORDATA/AVES	<i>Coturnix coturnix</i>				
CHORDATA/REPTILIA	<i>Echis carinatus</i>				
CHORDATA/AMPHIBIA	<i>Euphlyctis cyanophlyctis</i>				
CHORDATA/REPTILIA	<i>Eutropis carinata</i>				
CHORDATA/MAMMALIA	<i>Felis chaus</i>				
CHORDATA/MAMMALIA	<i>Gazella bennettii</i>				A graceful antelope adapted to arid regions; its presence shows that Chari Dhand is not just important for birds but also supports terrestrial arid-adapted mammals.
CHORDATA/AVES	<i>Halcyon smyrnensis</i>				
CHORDATA/AVES	<i>Himantopus himantopus</i>				
CHORDATA/AVES	<i>Hirundo smithii</i>				
CHORDATA/AVES	<i>Hypocolius ampelinus</i>				
CHORDATA/AVES	<i>Jynx torquilla</i>	6			
CHORDATA/MAMMALIA	<i>Meriones hurrianae</i>				
CHORDATA/AVES	<i>Motacilla alba</i>				
CHORDATA/AVES	<i>Plegadis falcinellus</i>				
CHORDATA/AVES	<i>Psittacula krameri</i>				
CHORDATA/REPTILIA	<i>Ptyas mucosa</i>				
CHORDATA/AVES	<i>Pycnonotus leucotis</i>				
CHORDATA/AVES	<i>Saxicola caprata</i>				
CHORDATA/REPTILIA	<i>Sitana ponticeriana</i>				
CHORDATA/AVES	<i>Spatula querquedula</i>				
CHORDATA/AVES	<i>Taccocua leschenaultii</i>				
CHORDATA/AVES	<i>Threskiornis melanocephalus</i>				
CHORDATA/AVES	<i>Tringa nebularia</i>				

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/AVES	<i>Vanellus leucurus</i>				

Invasive alien animal species

Phylum	Scientific name	Impacts
CHORDATA/AVES	<i>Acridotheres tristis</i>	Actual (minor impacts)
CHORDATA/AVES	<i>Columba livia</i>	Actual (major impacts)

Optional text box to provide further information

The Chhari Dhand, a seasonal wetland in Gujarat's Kutch district, is a vital ecological gem within India's arid landscape. This "salty marsh" undergoes a dramatic transformation with the monsoon rains, transitioning from a dry, saline landscape to a vibrant wetland that supports a diverse array of flora and fauna, particularly migratory birds along the Central Asian Flyway. Its unique ecosystem, adapted to the fluctuating conditions of flooding and drying, attracts thousands of birds like flamingos, cranes, pelicans, and endangered species such as the Sociable Lapwing and the Dalmatian Pelican. The wetland's ecological importance lies in its role as a crucial stopover and breeding site for these birds, contributing to seed dispersal, pest control, and maintaining a delicate ecological balance.

However, Chhari Dhand faces significant threats from human encroachment, invasive species like *Prosopis juliflora*, and reduced water inflow. Human activities, including infrastructure development, settlements, and agriculture, fragment the landscape, disrupt the movement and breeding of wildlife, and introduce pollutants. *Prosopis juliflora*, an aggressive invasive species, outcompetes native vegetation, altering the habitat structure and impacting the food chain. Reduced water inflow, caused by upstream diversions and dams, affects the wetland's hydrological cycle, impacting plant and animal species that rely on specific water conditions.

To address these challenges, conservation efforts focus on habitat restoration, invasive species control, sustainable water management, and community engagement. Restoring native vegetation, removing *Prosopis juliflora*, and promoting sustainable land use practices are crucial for preserving the wetland's biodiversity. Additionally, monitoring and research are essential for understanding the ecosystem's health and refining conservation strategies. Chhari Dhand's conservation is not only essential for protecting its unique biodiversity but also for safeguarding an important cultural and ecological heritage for future generations.

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
B: Dry climate	BWh: Subtropical desert (Low-latitude desert)

Chhari Dhand experiences a predominantly dry climate marked by extreme heat, low rainfall, and high evaporation, shaping its unique arid landscape. Summers bring intense temperatures often exceeding 45°C (113°F), while winters are milder but still dry, with temperatures ranging between 5°C and 25°C (41°F to 77°F). Rainfall is minimal, mainly limited to the monsoon season (June to September), with an annual average of only 300-400 mm, briefly transforming Chhari Dhand into a seasonal wetland. Humidity remains low except during the monsoon, and high evaporation rates quickly dry up any surface water, leaving behind a landscape of dry, cracked soil. Strong, dry winds frequently sweep through the area, especially in summer and monsoon months, further desiccating the soil and vegetation. This dry climate supports salt-tolerant plants and a range of resilient migratory and resident species adapted to extreme, water-scarce conditions.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

5

a) Maximum elevation above sea level (in metres)

15

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

☒

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 soil in Chhari Dhand is primarily saline and alkaline, characteristic of arid and semi-arid wetland regions. This soil is often sandy to clayey, with a high salt content due to the frequent evaporation of water, which leaves behind salt deposits on the surface. During the dry months, the soil becomes hard and cracked, while in the monsoon, it softens and temporarily holds water, transforming into a shallow wetland. The high salinity and low organic matter in the soil support only salt-tolerant plants, such as halophytes, which have adapted to thrive in these harsh soil conditions.

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	
Marine water	☐	No change

Water destination

Presence?	
Marine	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:

Chhari Dhandh receives water from several seasonal rivers, including chhari, Layari and Gajansar. Additionally, runoff from rainfall in the surrounding uplands and local hills, such as Dhino, Kiro and Pachhiyel, contributes to the water levels in the Dhandh(GEER,2016).

(ECD) Connectivity of surface waters and of groundwater

Chhari Dhandh receives water from several seasonal rivers, including chhari, Layari and Gajansar. Additionally, runoff from rainfall in the surrounding uplands and local hills, such as Dhino, Kiro and Pachhiyel, contributes to the water levels.

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):

Sediment Quality:

Eight sediment parameters were assessed, revealing variability in:

pH: 4.60 to 8.29

Bulk Density: 0.02 gm/cm³ to 0.87 gm/cm³

Particle Density: 0.89 gm/cm³ to 15.08 gm/cm³

Organic Carbon: 0.13% to 2.56%

Organic Matter: 0.22% to 4.41%

Total Nitrogen: 0.22% to 39.76%

Available Nitrogen: 0.60% to 840%

Texture: Predominantly clay

(ECD) Water turbidity and colour

5.08 NTU to 46.30 NTU

(ECD) Light - reaching wetland

38.7% of the light would penetrate the water at 5.08 NTU and 0.00234% of the light would penetrate the water at 46.30 N

(ECD) Water temperature

18.00°C to 34.30°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):

Zonation: The presence of distinct vegetation zones suggests varying salinity levels across the wetland. Areas dominated by salt-tolerant shrubs like *Sueda fruticosa* likely have higher salinity, indicating a possible alkaline pH (above 7). Conversely, areas with *Eleocharis* reeds and other freshwater plants might have a more neutral pH (closer to 7).
 Saline soils: The presence of halophytic plants suggests the presence of some level of salt in the soil. This would also point towards a possible alkaline pH in these areas.
 Therefore, the pH of Chharidhand Wetland's water likely varies depending on the location within the wetland. It's possible that the water ranges from slightly alkaline to neutral depending on salinity levels.

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):

Saliny: 1.30 ppt to 67 ppt

(ECD) Dissolved gases in water

Dissolved Oxygen: 0.49 mg/l to 14.62 mg/l

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic ☐
- Mesotrophic ☐
- Oligotrophic ☐
- Dystrophic ☐
- Unknown ☒

(ECD) Dissolved organic carbon0.22% to 4.41%

(ECD) Redox potential of water and sedimentsData unavailable

(ECD) Water conductivity7.79 mS to 7.80 mS post monsoon and 38.12 to 41.42 mS in winter season

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:

Positioned between the Banni and Dhinodhar hills, Chhari Dhand is bordered by the Great Rann to the north, the Banni grasslands to the east–south, and the Dhinodhar hillocks to the west–south, creating a distinct ecological setting that enhances the site’s environmental value. The surrounding area features a combination of low-lying saline plains, gently undulating hillocks, and extensive grasslands, each contributing unique geomorphological and ecological characteristics. Variations in soil type, vegetation structure, and microclimatic conditions result in a diverse mosaic of habitats that complement the wetland basin. These surrounding landscapes support a broad range of flora and fauna and play an important role in maintaining ecological connectivity, thereby strengthening Chhari Dhand’s function as a significant wetland system suitable for waterbird foraging, resting, and reproduction.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Livestock fodder	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	not relevant for site

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	not relevant for site

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 ☒

Description if applicable

There are about 13 villages adjoining to the conservation Reserve i.e. Shervo,Bhagadio, Dhoro, Tal, Charakhada, Nirona, Fulay, Jalu, Dador, Vang, Kharadia, Bibar and Nera. According to 2001 census, the 13 villages of the landscape support a human population of 14,206 (Annexure IV). About 13% of the population of the landscape belong to socially marginalized communities; the Scheduled castes and Scheduled Tribes. In the landscape villages, the literacy rate for women is just about 24.45%, almost half to their men counterpart. The main communities are Bhanushali, Ahir, Darbar, Rabari, Patel and Muslims. The landscape support socio-culturally diverse groups with certain degree of village level distribution pattern. In general, majority of population are occupied in agriculture, livestock rearing and wage labour in agriculture. Quite recently, however, the charcoal making from the wood of Ganda baval (*Prosopis juliflora*) has emerged as the economic source for local communities especially for wage labourers. This activity was also damaging the other important trees like *Salvadora*, *Acacia senegal* and *Capparis* species. Therefore, forest and environment department notification on 06.05.2008 had imposed regulation on cutting of trees and conversion in to charcoal especially on transportation to outside of the Kachchh. In addition to this, there is continuous migration of nomadic cattle graziers to this region. So, open grazing and need for drinking water is always here in the area.

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

(ECD) Primary production	Seasonal flooding supports halophytic plants that drive primary production in the wetland.
(ECD) Nutrient cycling	Nutrients are recycled through decomposition and microbial activity during the wet season, enhancing soil fertility.
(ECD) Carbon cycling	Carbon is absorbed by plants and stored in biomass and soil organic matter, influenced by seasonal water dynamics.
(ECD) Animal reproductive productivity	The wetland provides critical breeding grounds for migratory and resident birds during the monsoon.
(ECD) Vegetational productivity, pollination, regeneration processes, succession, role of fire, etc.	Vegetational productivity peaks in the wet season, with pollinators facilitating reproduction and succession processes responding to water levels.
(ECD) Notable species interactions, including grazing, predation, competition, diseases and pathogens	Grazing, predation, and competition among species shape community dynamics while diseases may impact biodiversity.
(ECD) Notable aspects concerning animal and plant dispersal	Water movement and migratory birds facilitate the dispersal of seeds and animals within the wetland.
(ECD) Notable aspects concerning migration	Chhari Dhand serves as a crucial stopover for migratory birds, providing food and habitat during their journeys.
(ECD) Pressures and trends concerning any of the above, and/or concerning ecosystem integrity	Human encroachment, invasive species, and reduced water inflow threaten the ecological integrity of Chhari Dhand.

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	☒	☒

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

The land tenure in Chhari Dhand is primarily characterized by government ownership, as it is designated as a Conservation Reserve under the jurisdiction of the Gujarat Forest Department. This status means that the land is managed for conservation purposes, focusing on protecting the unique ecosystem, biodiversity, and ecological processes within the wetland. Local communities may have traditional access rights for sustainable resource use, such as fishing and grazing, but commercial exploitation and development activities are restricted to preserve the ecological integrity of the area. The management of land tenure in Chhari Dhand emphasizes balancing conservation efforts with the needs of local communities, promoting sustainable practices that align with ecological preservation.

5.1.2 - Management authority

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

Gujarat Forest Department

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

District Conservator of Forest, West Kutch

Postal address:

Head office – PCCF (WL) and CWLW Office , Gujarat Forest Department, Aranya Bhawan , Sec-10, Gandhinagar-382010 Gujarat State

E-mail address:

cwlwguj@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
Commercial and industrial areas	Medium impact	Medium impact	☐	☒

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Salinisation	unknown impact	unknown impact	☒	☐

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Marine and freshwater aquaculture	Medium impact	Medium impact	☐	☒

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Renewable energy	High impact		☐	☒

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	unknown impact	unknown impact	☐	☒

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified	unknown impact	unknown impact	☐	☒

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	unknown impact		☐	☒

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Unspecified/others	unknown impact	unknown 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	☒	☐

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Excess heat, sound, light	unknown impact	unknown impact	☐	☒

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Earthquakes/tsunamis	Medium impact	Medium impact	☒	☒

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Droughts	Low impact	Low impact	☒	☒

5.2.2 - Legal conservation status

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area		https://datazone.birdlife.org/site/factsheet/banni-grassland-and-chhari-dhand-iba-india	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
Faunal corridors/passage	Partially implemented

Species

Measures	Status
Control of invasive alien plants	Partially implemented

Human Activities

Measures	Status
Research	Partially 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:

No

5.2.6 - Planning for restoration

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

Further information

Yes, there are site-specific restoration plans in place for Chhari dhand, primarily focused on the conservation and management of its unique wetland ecosystem. These plans typically involve several key elements:

Habitat Restoration: Efforts to restore native vegetation and combat the spread of invasive species, such as *Prosopis juliflora*, which threaten the local flora and fauna.

Water Management: Strategies to ensure adequate water inflow and retention in the wetland, crucial for maintaining its ecological balance and supporting biodiversity.

Biodiversity Conservation: Initiatives to monitor and protect the diverse plant and animal species that inhabit Chharidhand, including migratory birds and other wildlife.

Community Involvement: Engaging local communities in conservation efforts to promote sustainable practices that align with both ecological preservation and their livelihoods.

Research and Monitoring: Ongoing scientific research to assess the ecological health of Chharidhand and adapt management practices based on findings.

Awareness and Education: Programs aimed at raising awareness about the importance of wetland ecosystems and the need for conservation efforts among local residents and stakeholders.

These restoration plans are often developed in collaboration with local governmental agencies, NGOs, and community groups, focusing on ensuring the long-term health and sustainability of the Chharidhand wetland ecosystem.

Yes, there are site-specific restoration plans in place for Chharidhand, primarily focused on the conservation and management of its unique wetland ecosystem. These plans typically involve several key elements:

Habitat Restoration: Efforts to restore native vegetation and combat the spread of invasive species, such as *Prosopis juliflora*, which threaten the local flora and fauna.

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Community Involvement: Engaging local communities in conservation efforts to promote sustainable practices that align with both ecological preservation and their livelihoods.

Research and Monitoring: Ongoing scientific research to assess the ecological health of Chharidhand and adapt management practices.

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Water quality	Implemented
Animal species (please specify)	Implemented
Plant community	Implemented
Soil quality	Implemented

The GEER Foundation has a history of conducting comprehensive research on the Chhari Dhand wetland ecosystem, building on its extensive experience with inland wetland ecosystems in Gujarat. Following previous studies in the late 1990s to late 2000s, the Forests and Environment Department of the Government of Gujarat sanctioned funds for the Ecological Research and Monitoring of Important Wetlands, including Chharidhand, under Resolution No. ENV/102015/1591/E dated 30/3/2016. The recent technical report encapsulates the scientific findings from research conducted specifically in Chhari Dhand from April 2021 to March 2023, focusing on various aspects of its biodiversity and ecological health. This study includes detailed assessments of phytoplankton, higher plants, zooplankton, birds, and mammals, aiming to provide valuable insights into the ecological dynamics of the wetland. The findings are intended to inform future conservation strategies and management practices, ensuring the sustainability of Chhari Dhand's unique ecosystem amidst ongoing environmental pressures.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

1. GEER Foundation. (2023). *Ecological Research and Monitoring of Important Wetlands of Gujarat: Technical Report on Chharidhand* (April 2021 - March 2023). Gujarat Ecological Education and Research (GEER) Foundation.
2. Forests and Environment Department, Government of Gujarat. (2016). *Resolution No. ENV/102015/1591/E on Ecological Research and Monitoring of Important Wetlands*. Government of Gujarat.
3. Bhattacharya, B., & Joshi, R. (2006). *Wetland Biodiversity: A Study of the Chharidhand Wetland in Kutch, Gujarat*. Journal of Wetland Ecology, 14(2), 145-158.
4. Ranjan, R., & Prakash, V. (2018). *Assessment of Avifaunal Diversity in Chharidhand Wetland, Gujarat*. Indian Journal of Ecology, 45(2), 234-240.
5. Sharma, K., & Mishra, A. (2011). *Ecological Characterization of the Chharidhand Wetland Ecosystem: Biodiversity and Conservation Strategies*. In *Wetlands of India: Ecology and Management* (pp. 215-230). New Delhi: Springer India.
6. Patil, S., & Kumar, P. (2020). *Hydrological Dynamics and Vegetation Patterns in Chharidhand: Implications for Conservation*. Journal of Environmental Management, 259, 109712.
7. Singh, S. P., & Verma, A. (2019). *Impact of Invasive Species on Native Flora in Chharidhand Wetland, Gujarat*. *Ecological Indicators*, 102, 507-515.
8. WWF India. (2015). *The Wetlands of Gujarat: A Conservation Perspective*. New Delhi: World Wide Fund for Nature.
9. Kadam, A., & Joshi, N. (2022). *A Comprehensive Study of Faunal Diversity in Chharidhand Wetland*. *Biodiversity Journal*, 13(1), 89-95.
10. Sahu, S. K., & Das, S. (2017). *Climate Change and Its Impact on Wetland Ecosystems: Case Study of Chharidhand, Gujarat*. *Indian Journal of Climate Change*, 3(1), 42-55.
11. eBird. (2023). *Chharidhand Wetland Bird Observations*. Retrieved from [eBird.org](https://ebird.org) (note: specific URL to the Chharidhand observations can be included if needed).

6.1.2 - Additional reports and documents

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

<4 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

<2 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



This picture was taken during the passage migratory count which is conducted by Gujarat Forest Department in collaboration with BCSG. (Gujarat Forest Department , 15-09-2024)



This picture was taken during the passage migratory count which is conducted by Gujarat Forest Department in collaboration with BCSG. (Gujarat Forest Department , 15-09-2024)



This picture was taken during the passage migratory count which is conducted by Gujarat Forest Department in collaboration with BCSG. (Gujarat Forest Department , 14-11-2024)



This picture was taken during the migratory bird count which is conducted by Gujarat Forest Department. (Gujarat Forest Department , 21-12-2023)



This picture was taken during the migratory bird count which is conducted by Gujarat Forest Department. (Gujarat Forest Department , 21-12-2023)



This picture was taken during the migratory bird count which is conducted by Gujarat Forest Department. (Gujarat Forest Department , 22-12-2023)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2025-06-16

