Ramsar Information Sheet

Published on 2 February 2025

Iran (Islamic Republic of)

Gandoman

Designation date	21 July 2024
Site number	2558
Coordinates	31°50'13"N 51°05'58"E
Area	1 070,00 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

The Gandoman wetland is a permanent freshwater inland wetland in the Karoun river basin and Aghbolagh sub basin. This wetland is located in the Gandoman district of Boroujen town in the province of Chaharmahal and Bakhtiari which is located in southwest Iran. The Gandoman wetland is located in the Middle Zagros mountain range and the Iran-Tourani vegetative zone of Iran in Tange Sayyad-Sabzkooh biosphere reserve and designated as a no hunting area. This wetland has an area of 1070 hectares. The average depth of this lake is 45cm, with a maximum depth of 150 cm.
The wetland recharges the groundwater with its water in the downstream area and controls flooding.
It is a habitat for wintering and hatching of different species of waterbirds and native birds. In fact, about 83 species are identified in this wetland. There are also a wide range of migratory and waterbirds including, mallard, lesser white-fronted goose, common pochard, ferruginous duck, marbled duck, Dalmatian pelican, grey sea eagle.
The plant diversity in this wetland is remarkable. About 129 plants species are identified belonging to 32 families and 87 genera. Mammals identified in this area are Eurasian lynx, Gray wolf, Eurasian badger, Golden jackal, Brown bear , Jungle cat, , Eurasian otter, and etc.
Gandoman Wetland is considered to be one of the most important sites in Iran for the endemic Zagros pupfish (Aphanius vladykovi).
In this site, a center for communication, education, participation and increasing environmental awareness (CEPA Center) and birdwatching, as well as a birdhides shelter has been established. Firefighting training is provided at the fire station next to this site.
Threats such as drought, climate change, fire, agricultural effluents and garbage and solid waste, etc. may affect the inside and around the site.
In order to respond to probable threats to the wetland, monitoring measures are carried out by the General Department of Environmental Protection of the province by employing experts in various fields and periodically based on the schedule of the Gandoman Wetland Management Plan. Also since the past years, due to the importance of the wetland for local communities and their spiritual and livelihood dependences, interacting with the wetland, providing water right, preventing fires and changing land use, etc., have always been considered by the local people around the wetland and well done.

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 Environment of Iran

Postal address:
P.O. box: 14155-7383
Pardisan Natural Park, Hakim Highway
Department of Environment
Tehran, I.R.Iran

National Ramsar Administrative Authority

Institution/agency: Department for the International Affairs of Environment and Sustainable Development , Ministry of Foreign Affairs of the Islamic Republic of IRAN

Postal address: Ministry of Foreign Affairs of the Islamic Republic of IRAN,P.O. box: 1136914811 Bldg.8 West, United Nations St., Imam Khomeini Ave. Tehran. Iran

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

From year: 2012

To year: 2024

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Gandoman

Unofficial name (optional): -

2.2 - Site location

2.2.1 - Defining the Site boundaries

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

Former maps: 0

Boundaries description

The site is located in the East of Chaharmahal and Bakhtiari province, 90 km from Shahrekord city. This wetland is situated at the latitude of 31˚-49' to 31˚-53' N and a longitude of 51˚-5' to 51˚-7' E. In the Eastern part there is Zoleykha Cave.In the north it reaches the Aghbolagh River.There are agricultural lands in the north-west and south. The western part of the wetland is located on the hillside of Chirou mountain. Wetland water supply 8 springs named Gol Gap, Gol Kochak, Gol Shirberenji, Bishe Ghalamestan, Chahar Sang, Bare Shour, Ab Kour and Paniri.
The boundary has been defined by specifically incorporating all of the wetland habitats and taking into account the region's topography.
The defined boundary for the wetland is closed based on hydrological features for this reason, agricultural lands are located within the defined boundary.

2.2.2 - General location

a) In which large administrative region does the site lie? Chaharmahal and Bakhtiari province

b) What is the nearest town or population centre? Gandoman

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): 1070

Area, in hectares (ha) as calculated from GIS boundaries: 1094.672

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Freshwater Ecoregions of the World (FEOW)	Upper Tigris & Euphrates

Other biogeographic regionalisation scheme

Gandoman Wetland is located in West Asia in Iran. According to the studies conducted by Leonard(1993), the Irano-Tourani vegetative zone is divided into 4 geographical sub-regions, of which Gandaman wetland is located in the geographical region of Irano- Anatolian, which is climatically located in a cold and mountainous region.

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	Gandoman wetland is located in the middle part of Gandoman-Boldaji plain. The lake is permanent with an average depth of 45 centimeters and the maximum depth of 150 centimeters. In addition to snow and rain, the water sources of this site are the permanent springs around the wetland named Gol Kochak, Gol Bozorg, Muradan, Kayun, Shirberenji and Nasir Abad. According to the location of the aquifer and the hydrogeological conditions of the aquifer in the area of Gandoman wetland, this wetland acts as a feeder of the aquifer. The feeding rate of the groundwater aquifer in this site, is more than 7 million cubic meters per year. The main hydrological services of the Site are water purification, water retention and storage as well as for regulating the groundwater level and recharging aquifers in the surrounding area. It also helps to maintain water quality and balance the microclimate of the region. The Site also helps in controlling local dust by keeping the aquifer alive, preventing the plains from drying out and increasing humidity, which have been one of the significant environmental concerns in the region in recent years.
Other ecosystem services provided	Gandoman is a representative wetland with beautiful landscape. This Site provides a wide range of important ecosystem services. Biodiversity support, the habitat of aquatic plants such as Carex binervis and Phragmites australis, the breeding place of a wide range of bird species, such as: Anas crecca, Anas platyrhynchos, Anas querquedula, Anser erythropus, Aythya ferina,…. Aphanius vladykovi as endemic fish species is migrating and spawning in this site. Scientific services include various visits and studies of other ecosystem services of Gandoman wetland. Therefore, this wetland is a representive wetland due to the hydrological services provided and other ecosystem services.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	The wetland is substantial breeding and nursery grounds for several species listed as vulnerable under the Red List of Threatened Species of the International Union for Conservation of Nature (IUCN), including Testudo graeca, Anser erythropus, Aythya ferina,... The Near Threatened species are Lutra lutra, Aythya nyroca,...

☑ Criterion 3 : Biological diversity

Justification	The wetlands support very diverse flora and fauna and thus, play an important role in maintaining the genetic and biological diversity of the region. It is located in Tange Sayyad- Sabzkooh biosphere reserve. In the site There are 83 bird species, 6 fish species, 129 plants,2 amphibians, 11 reptiles and 12mammals species. Some important species of this wetland are: Anser erythropus, Aythya ferina, Aythya nyroca, Marmaronetta angustirostris which are listed on the IUCN Red list of Threatened species. The site is an important area for both terrestrial birds and waterbirds and forms of stop-over area for migrating birds specially ducks. About 45 bird species are nesting in the site, and most of them are dependent on the wetland. The site is ecotone area and supports animal and terrestrial birds in the Tange Sayyad- Sabzkooh biosphere reserve.

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

☑ Criterion 5 : >20,000 waterbirds

Overall waterbird numbers	25538
Start year	2015
End year	2024
Source of data:	Annual census report of birds in this wetland (conducted by the Department of Environment).
Optional text box to provide further information	Gandoman Permanent Freshwater wetland is located in the East Asian–East African Flyway of the Bird Migration flyway, and in some years, more than 30,000 bird individuals were counted in the wetland. Waterbird Population status reports from 2015 to 2024 have been added to the Additional material (6.1.2.i).

☑ Criterion 7 : Significant and representative fish

Justification	The Zagros pupfish (Aphanius vladykovi) is an endemic species found in a restricted area of the Central Zagros Mountains of Iran, which is found in Gandoman wetland. Other important and native fishes such as Chondrostoma regium, Capoeta damascina, Capoeta trutta and Aphasias sophiae lives in Gandoman Wetland.

☑ Criterion 8 : Fish spawning grounds, etc.

Justification	There are more than 8 permanent freshwater springs in the Gandoman wetland, which is the most important habitat of the fish in Gandoman wetland and the place of their spawning and regeneration. These fish spawn in places where the bed is sandy, clear, cold, and rich in oxygen And by providing these conditions, the springs provide the possibility of the survival of these fish in the Gandoman wetland. Desirable types and amounts of aquatic vegetation provide habitat for fish and wildlife, help remove excess nutrients from the water and improve water clarity by filtering particles. These habitats in addition to the physical and chemical properties of the wetlands provide suitable environment for spawning, nursery and feeding grounds for: Aphanius vladykovi, Chondrostoma regium, Capoeta damascina, Capoeta trutta, Aphasias sophiae.

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 / LILIOPSIDA	*Carex riparia*	☐	☑	☐	LC	☐		As breeding sites, plants are considered important for maintaining biodiversity
TRACHEOPHYTA / LILIOPSIDA	*Phragmites australis*	☐	☑	☐	LC	☐		As breeding sites, plants are considered important for maintaining biodiversity

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 / ACTINOPTERYGII	*Chondrostoma angorense*	☐	☐	☐	☐	☐	☐	☐	☑				LC	☐	☐		The species is spawn in the site.
CHORDATA / MAMMALIA	*Lutra lutra*	☑	☐	☐	☐	☐	☐	☐	☐				NT	☑	☐		
CHORDATA / REPTILIA	*Testudo graeca*	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☐		
Fish, Mollusc and Crustacea																	
CHORDATA / ACTINOPTERYGII	*Aphanius vladykovi*	☐	☐	☐	☐	☐	☐	☑	☑					☐	☐		The species is a migrating and spawn in the site.
Birds																	
CHORDATA / AVES	*Anas crecca*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		With average number of 3000 in the site, as a endemic species Anas crecca maintains biodiversity of the region. Also the breeding of this species is in Gandoman wetland
CHORDATA / AVES	*Anas platyrhynchos*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐		With average number of 5500 in the site, as a endemic species Anas platyrhynchos maintains biodiversity of the region. Also the breeding of this species is in Gandoman wetland
CHORDATA / AVES	*Anser erythropus*	☑	☐	☐	☐	☐	☐	☐	☐				VU	☐	☑		
CHORDATA / AVES	*Aythya ferina*	☑	☑	☐	☐	☐	☐	☐	☐				VU	☐	☐		The breeding of this species is in Gandoman wetland.
CHORDATA / AVES	*Aythya nyroca*	☑	☑	☐	☐	☐	☐	☐	☐				NT	☐	☑		The breeding of this species is in Gandoman wetland.
CHORDATA / AVES	*Fulica atra*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐		With average number of 16500 in the site, as a endemic species Fulica atra maintains biodiversity of the region. Also the breeding of this species is in Gandoman wetland
CHORDATA / AVES	*Haliaeetus albicilla*	☑	☐	☐	☐	☐	☐	☐	☐				LC	☑	☑		
CHORDATA / AVES	*Marmaronetta angustirostris*	☑	☐	☐	☐	☐	☐	☐	☐				NT	☐	☑		
CHORDATA / AVES	*Pelecanus crispus*	☑	☐	☐	☐	☐	☐	☐	☐				NT	☑	☑		
CHORDATA / AVES	*Vanellus gregarius*	☑	☐	☐	☐	☐	☐	☐	☐				CR	☐	☑		

1) Percentage of the total biogeographic population at the site

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

<no data available>

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

4.1 - Ecological character

The Gandoman wetland is located in the Middle Zagros mountain range and the Iran-Tourani vegetative zone of Iran in Tange Sayyad-Sabzkooh biosphere reserve and designated as a no hunting area. This wetland has an area of 1070 hectares. Climatic region is Moist Mid-Latitude climate with cold winters. Maximum and Minimum elevation above sea level respectively is about 2229 and 2207 meters.
It is a permanent freshwater inland wetland in the Karoun river basin and Aghbolagh sub basin. The wetland recharges the groundwater with its water in the downstream area.
It is a habitat for wintering and hatching of different species of waterbirds and native birds. In fact, about 83 species are identified in this wetland. This Site is an important habitat of wintering internationally important species such as Vanellus gregarious(“Critically Endangered”), Pelecanus crispus (“Near Threatened”), Marmaronetta angustirostris (“Near Threatened”), Aythya ferina (“Vulnerable”) which is listed as on the IUCN Red list.
There are also a wide range of migratory and waterbirds including, mallard, lesser white-fronted goose, common pochard, ferruginous duck, marbled duck, Dalmatian pelican, grey sea eagle.
The plant diversity in this wetland is remarkable. About 129 plants species are identified belonging to 32 families and 87 genera. Mammals identified in this area are Eurasian lynx, Gray wolf, Eurasian badger, Golden jackal, Brown bear , Jungle cat, Eurasian otter, etc.
Gandoman Wetland is considered to be one of the most important sites in Iran for the endemic Zagros pupfish (Aphanius vladykovi) and Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part.
This wetland controls flooding, as runoff containing destructive force flows into the wetlands during the wet season. The main hydrological services of the Site are water purification, water retention and storage as well as for regulating the groundwater level and recharging aquifers in the surrounding area. It also helps to maintain water quality and balance the microclimate of the region.
Other wetland ecosystem services: Avoiding dust, feeding underground water sources, adjusting the climate and microclimate of the region, regulating water flow, scientific services include various visits and studies, recreation and tourism(Picnics, bird watching, touring…), etc.
The wetland has a view of the Kallar mountain, adding tourism value, and agricultural lands and apple gardens are located at a greater distance from the wetland.

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 >> Tp: Permanent freshwater marshes/ pools	Gandoman	0	596.95	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non-forested peatlands	Gandoman	0	537.412	Representative

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	*Anacamptis palustris*	
TRACHEOPHYTA/LILIOPSIDA	*Bolboschoenus glaucus*	Dominant species
TRACHEOPHYTA/LILIOPSIDA	*Cladium mariscus*	Dominant species
TRACHEOPHYTA/LILIOPSIDA	*Dactylorhiza incarnata*	Rare
TRACHEOPHYTA/LILIOPSIDA	*Eleocharis mitracarpa*	Dominant species
TRACHEOPHYTA/LILIOPSIDA	*Juncus inflexus*	Dominant species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Parnassia palustris*	
TRACHEOPHYTA/MAGNOLIOPSIDA	*Pentanema oculus-christi*	Dominant species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Persicaria amphibia*	Dominant species
TRACHEOPHYTA/LILIOPSIDA	*Potamogeton lucens*	Dominant species
TRACHEOPHYTA/MAGNOLIOPSIDA	*Potentilla elvendensis*	Endemic
TRACHEOPHYTA/LILIOPSIDA	*Schoenoplectus litoralis*	Dominant species
TRACHEOPHYTA/LILIOPSIDA	*Scirpoides holoschoenus*	Traditionally used for medical treatment
TRACHEOPHYTA/LILIOPSIDA	*Typha angustifolia*	Traditionally used for food
TRACHEOPHYTA/LILIOPSIDA	*Zannichellia palustris*	Dominant species

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	% occurrence	Position in range /endemism/other
CHORDATA/MAMMALIA	*Canis lupus*				migrating
CHORDATA/MAMMALIA	*Hemiechinus auritus*				migrating
CHORDATA/MAMMALIA	*Meles meles*				migrating
CHORDATA/MAMMALIA	*Ochotona rufescens*				migrating
CHORDATA/REPTILIA	*Paralaudakia caucasia*				migrating
CHORDATA/AMPHIBIA	*Pelophylax ridibundus*				migrating
CHORDATA/AVES	*Anas strepera*				migrating
CHORDATA/AVES	*Anser anser*				migrating
CHORDATA/AVES	*Aquila clanga*				migrating
CHORDATA/AVES	*Ardea cinerea*				migrating
CHORDATA/AVES	*Aythya fuligula*				migrating
CHORDATA/AVES	*Chlidonias leucopterus*				migrating
CHORDATA/AVES	*Ciconia ciconia*				migrating
CHORDATA/AVES	*Circus aeruginosus*				migrating
CHORDATA/AVES	*Cygnus olor*				migrating
CHORDATA/AVES	*Grus grus*				migrating
CHORDATA/AVES	*Phalacrocorax carbo*				migrating
CHORDATA/AVES	*Platalea leucorodia*				migrating
CHORDATA/AVES	*Plegadis falcinellus*				migrating
CHORDATA/AVES	*Podiceps nigricollis*				migrating

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)

Climatic conditions with drought affect the site, resulting in annual fires.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 2207

a) Maximum elevation above sea level (in metres): 2229

- 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.

This site is located in Karoun river basin and Aghbolagh subbasin.

4.4.3 - Soil

- Mineral ☑
- Organic ☑
- No available information ☐

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes ○ No ◉

4.4.4 - Water regime

Water permanence

Presence?	
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from groundwater	☐	No change

Water destination

Presence?	
To downstream catchment	No change
Feeds groundwater	No change

Stability of water regime

Presence?	
Water levels fluctuating (including tidal)	No change

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):

No significant sedimentation regime occurs in this site.

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):

The range PH is between 7.3 - 8.

4.4.7 - Water salinity

Fresh (<0.5 g/l) ☑

Mixohaline (brackish)/Mixosaline (0.5-30 g/l) ☐

Euhaline/Eusaline (30-40 g/l) ☐

Hyperhaline/Hypersaline (>40 g/l) ☐

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic ☐

Mesotrophic ☑

Oligotrophic ☐

Dystrophic ☐

Unknown ☐

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

TSI index has been used to evaluate the level of nutrients in Gandoman wetland. TSI scale is divided from 0 to 100 and calculated according to TP, Chl-a, and TN parameters. According to TSI index, the level of nutritionism in Gandoman wetland is Mesotroph.

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 landscape of the wetland is covered by grassland in the Kallar mountain, and agricultural lands and apple gardens are located at a greater distance from the wetland.

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
Wetland non-food products	Peat	High
Wetland non-food products	Reeds and fibre	Low
Wetland non-food products	Livestock fodder	Low
Genetic materials	Medicinal products	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	Medium
Erosion protection	Soil, sediment and nutrient retention	Medium
Hazard reduction	Flood control, flood storage	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	High
Recreation and tourism	Nature observation and nature-based tourism	High
Spiritual and inspirational	Cultural heritage (historical and archaeological)	High
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Long-term monitoring site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	Medium
Nutrient cycling	Storage, recycling, processing and acquisition of nutrients	Medium
Nutrient cycling	Carbon storage/sequestration	Medium
Pollination	Support for pollinators	Medium

Other ecosystem service(s) not included above:

Avoiding dust, Feeding underground water resources, Climate adjustment and microclimate of the region, Regulation of water flows and...

Within the site: 10000

Outside the site: >15000

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

Where economic studies or assessments of economic valuation have been undertaken at the site, it would be helpful to provide information on where the results of such studies may be located (e.g. website links, citation of published literature):

Based on the results of the research project "Economic Valuation of Gandoman Wetland Ecosystem Services" carried out in 2023. At first, basic information and samples were provided in the study area. Then, sampling and inventory were done in order to quantify and evaluate the ecosystem functions of the wetland, includes assessment of vegetation, carbon sequestration and O2 production, assessment of soil fertility, habitats for wildlife and recreational services. After that, economic evaluation of ecosystem functions based on cost-based or market-based approaches. The results showed that the economic value of Gandoman wetland is 3885 US$ per hectare for various functions (forage production, carbon sequestration, O2 production, soil fertility, wildlife and tourism).

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 ☑

Description if applicable

In the past, water management in Gandoman wetland was traditionally done by a farmer's representative named Mirab. Mirabs traditionally regulate water while using the water sources of the surrounding springs for agriculture. They do not use all the water and release some of it to the wetland in such a way that the water rights of the wetland (enough water for the ecological characteristics of the wetland) are maintained. Also, in the seasons when they don't do agriculture and use water, they direct all the water to the site.

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

Since the past years, due to the importance of the wetland for local communities and their spiritual and livelihood dependences, interacting with the wetland, providing water right, preventing fires and changing land use, etc., have always been considered by the people around the wetland and well done.

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
National/Federal government	☑	☑

Private ownership

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

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:	P.O. box: 8818613156 Jahad square, Piroozi st. Department of Environment Shahrekord, Chaharmahal&Bakhtiari Province, I.R.Iran
Provide the name and/or title of the person or people with responsibility for the wetland:	General Director of Department of the Environment in Chaharmahal & Bakhtiyari
Postal address:	P.O. box: 8818613156 Jahad square, Piroozi st. Department of Environment Shahrekord, Chaharmahal&Bakhtiari Province, I.R.Iran
E-mail address:	wetland.bureau@doe.ir

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
Housing and urban areas	Low impact	Low impact	☐	☑
Tourism and recreation areas	Low impact	Low impact	☑	☑

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Canalisation and river regulation	Low impact	Low impact	☐	☑

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Livestock farming and ranching	Low impact	Low impact	☐	☑

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Low impact	☐	☑

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Hunting and collecting terrestrial animals	Medium impact	High impact	☑	☑

Human intrusions and disturbance

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

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	Low impact	Medium impact	☑	☑

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Agricultural and forestry effluents	Low impact	Low impact	☑	☑
Garbage and solid waste	Low impact	Medium impact	☑	☑

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Droughts	Medium impact	Medium impact	☑	☑

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	TangeSayyad-Sabzkooh		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
No shooting, hunting or trapping areas	No-hunting area of Gandoman wetland		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
Land conversion controls	Implemented
Catchment management initiatives/controls	Partially implemented
Hydrology management/restoration	Implemented
Improvement of water quality	Implemented
Habitat manipulation/enhancement	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Implemented
Research	Implemented
Regulation/management of recreational activities	Proposed
Harvest controls/poaching enforcement	Implemented

Other:

This wetland has: Fire Fighting station-Online Surveillance Cameras- several telescopes and cameras-Flow meter-

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 ◉

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site:

In this site, a center for communication, education, participation and increasing environmental awareness (CEPA Center) and birdwatching, as well as a bird hides shelter has been established. Firefighting training is provided at the fire station next to this site.

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

Further information

This site has maintained all its functions as an important and valuable wetland, and due to the cooperation of local communities to preserve this wetland, so far, the site has not undergone changes and destruction, and there is no need to be revived and restorated, and only conservation and maintenance measures are done in cooperation with all stakeholders.

5.2.7 - Monitoring implemented or proposed

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

WaterBirds are counted annually in this wetland and Zagros pupfish (Aphanius vladykovi) Monitored regularly.

For general monitoring of the indicators mentioned above, monitoring measures are carried out by the General Department of Environmental Protection of the province by employing experts in different fields and periodically according to the schedule of Gandoman wetland's Management Plan.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

- General Department of Environmental Protection Chaharmahal and Bakhtiari Province. 2021. Comprehensive management plan of Gandman wetland. First Edition.

- Lotfi, G., Ahmadi Nadoushan, M. and Abolhasani, M., 2019. The feasibility of using Landsat OLI images for water turbidity estimation in Gandoman wetland, Iran. Journal of Radar and Optical Remote Sensing, 2(2), pp.49-62.

- Iranmanesh, Y., Shirmardi, H.A. and Jahanbazi Gujani, H., 2017. Gandoman wetland: One of the most beautiful bird watching wetlands in Iran. Iran Nature, 2(4), pp.82-91.

- Khoshkam, M., Marzuki, A. and Arzjani, Z., 2014. Wetland capabilities in enhancing wetland tourism in Gandoman, Iran. International Journal of Sustainable Development and Planning, 9(3), pp.362-375.

- Cheraghpour, J., Afsharzadeh, S., Sharifi, M., Ghadi, R.R. and Masoudi, M., 2013. Phytoplankton diversity assessment of Gandoman wetland, west of Iran. Iran. J. Bot, 19(2), pp.153-16.

- Abari, M.F., Radnezhad, H. and Sadeghi, M., 2015. Evaluation of drought selected stations by Standardized Precipitation Index (SPI) on Wetland Gandoman. J. Mater. Environ. Sci, 6, pp.10-14.
- Agriculture and natural resources research and education center of Chaharmahal and Bakhtiari province.2023. Research project: Economic Valuation of Ecosystem Services of Gandoman wetland.
- Annual census report of birds in this wetland (conducted by the Department of Environment).
- Asgari, R., Sarhangzadeh, J. and Mosleh Arani, A., 2022. The study of species diversity of waterfowl and waders in Gandomman wetland. Journal of Wetland Ecobiology, 13(1), pp.0-0.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<12 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
<2 file(s) uploaded>

vi. other published literature
<6 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Vanellus spinosus in Gandoman wetland (*Department of Environment, 08-05-2021*)


Gandoman Wetland (*Department of Environment, 14-05-2015*)


Phoenicopterus roseus in Gandoman wetland (*Department of Environment, 14-05-2015*)


Himantopus himantopus in Gandoman wetland (*Department of Environment, 05-01-2023*)

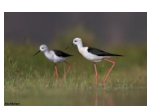

Phalacrocorax carbo in Gandoman wetland (*Department of Environment, 22-09-2021*)


Natrix tessellata hunting fish in Gandoman wetland (*Department of Environment, 09-03-2023*)


Ardeola ralloides in Gandoman wetland (*Department of Environment, 18-05-2020*)


Podiceps nigricollis in Gandoman wetland. (*Department of Environment, 30-11-2020*)


Bird watching tower in Gandoman wetland. (*Department of Environment, 13-09-2022*)

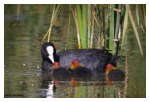

Himantopus himantopus in Gandoman wetland. (*Department of Environment, 13-12-2018*)


Online Surveillance Camera in Gandoman wetland. (*Department of Environment, 14-02-2023*)


Egretta garzetta in Gandoman wetland. (*Department of Environment, 16-07-2014*)


Ciconia ciconia in Gandoman wetland. (*Department of Environmen, 08-04-2021*)


Fire Fighting station and Ranger station in Gandoman wetland. (*Department of Environment, 24-02-2024*)


Fulica atra in Gandoman wetland. (*Department of Environment, 19-10-2019*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2024-07-21