



Ramsar Information Sheet

Published on 31 January 2024

Iran (Islamic Republic of) Barm Alvan



Designation date	13 February 2022
Site number	2539
Coordinates	31°00'36"N 50°14'28"E
Area	20,00 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 Barm Alvan is a permanent, brackish inland lake in Iran that plays an important role in ecological and biological processes within this region. The area of this wetland is 20 hectares and is located in the south-west of Iran in Kohgiluyeh and Boyer-Ahmad Province. The average depth of this lake is 13 meters, with a maximum depth of 35 meters. Natural water holes and gypsum pits that surround the lake are the most important source of water for the lake. They also provide critical habitat for bird and wildlife in the area. The lake is surrounded by Zagros Mountain range with Almond and Oak forests and numerous animal species of particularly rare birds and plants. It is located near Tang-e Soulak Conservation Area and Forest Reserve. So, the lake plays a key role during water storage to support wildlife population around and within the Conservation Area and the Forest Reserve.

The Site supports rich biodiversity in both the terrestrial and aquatic environments, including 170 species of birds, mammals, fish, reptile, and amphibian, floating, submerged vegetation and flowering plants. It provides critical habitat for up to 5,000 breeding waterbirds and it is an important resting site for numerous species of migrating birds. There are some globally important animal species such as *Lutra lutra*, *Aythya ferina* and *Cyprinus carpio* that depend on this lake for survival. It provides important ecosystem services for the surrounding communities in term of dust control, water regulation, ecotourism, recreation, and sport fishing.

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
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, 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	2015
To year	2023

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Barm Alvan
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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 Site is located in a closed drainage basin at Zagros Mountains (mountain range in southwestern Iran) with an area of 20.0 hectares . It is located in the southwest of Kohgiluyeh and Boyer-Ahmad province, in 40 km Likak city. It is situated between the eastern geographical coordinates from 50°.14'.17" to 50°.14'.36" and the north latitude of 31°.00'.27" to 31°.00'.44". This area is extended from the southern part to the Barm-Alvan village, and the boundary of the Site is surrounded by the agricultural fields and the Almond Oak forest. In addition, the riparian section or coastal areas of the lake are covered by *Tamarix hispida* and *Phragmites australis* species almost from all sides.

2.2.2 - General location

a) In which large administrative region does the site lie?	Yasouj
b) What is the nearest town or population centre?	Likak city

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):	20
Area, in hectares (ha) as calculated from GIS boundaries	19.949

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
WWF Terrestrial Ecoregions	Zagros Mountains forest steppe

Other biogeographic regionalisation scheme

Middle East - Persian Gulf

The Middle East is a large and diverse geographical area located in southwest Asia and northeast Africa. It extends over 2,000 miles from the Black Sea in the north to the Arabian Sea in the south, and about 1,000 miles from the Mediterranean Sea in the west to the mountains of Iran. Mountains and deserts divide the Middle East into six zones (including Nile River, Eastern Mediterranean, Anatolian Plateau, Arabian Peninsula, Mesopotamia, Zagros Mountains) that are both geographically distinct and have influenced the development and maintenance of cultural traditions through much of the history of the region. The climate of the Middle East ranges from the warm summers and cold winters of highland Turkey and Iran, through hotter summers and cool winters of northern Mesopotamia and the Mediterranean coast, to the extreme temperatures of the Arabian desert. Most, but not all, of the region is arid. Barm Alvan lake is located in the Zagros mountain range. Persian Gulf is the warmest water expanse known with dry semi-tropical climate. Its widest part reaches 180 miles and its depth is from 10-30m in the west to 93m. The Persian is a thermally extreme and hypersaline body of water with temperatures regularly exceeding 34°C during summer in its southern and hottest part. Barm Alvan Lake is located near the Persian Gulf.

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

The lake is permanent with an average depth of 13 meters and the maximum depth of 35 meters. Natural water holes and gypsum pits surrounding the lake are its major sources of water. Spontaneous lakebed springs, rain, seasonal floods and groundwater form the secondary sources of water. There is no noticeable river that enters this lake. The Lake in itself is critical for 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 stabilize regional climate. During heavy rain season, it helps to retain water and sediment and aids in maintaining the biogeochemical cycle of the Site. The Site also helps in controlling regional dust storms, which have been one of the significant environmental concerns in the Middle East in recent years.

Other ecosystem services provided

The Barm Alvan lake is a unique brackish lake with beautiful landscape and high biodiversity. This Site provides a wide range of important ecosystem services for the surrounding areas, including ecotourism services, providing fodder for livestock, hunting, fishing for local communities. It also plays a key role as feeding, breeding and nursery grounds for a wide range of bird species, especially endangered birds such as, the *Aquila nipalensis*, *Aythya ferina* and *Anas crecca*.

Other reasons

The Site is located in the Zagros Mountains forest steppe ecoregion. It is a brackish lake and is fed by nature water holes and surrounding gypsum pits; these features makes the wetland unique in this ecoregion.
It is located near the Tang-e Soulak Conservation Area and Forest Reserve which has a high a rich biodiversity that includes more than 300 plant species and more than 240 animal species. The animal species of this Conservation Area use the Site for drinking water, especially in the warmer seasons. In addition, the Zagros Mountain Range along with the surrounding almond forests provide habitat for *Lutra lutra*, *Cyprinus carpio*, *Falco pelegrinoides*, *Sciurus anomglus*, and *Felis silvestris* (endangered species).

Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information

The Site provides suitable habitat to endangered and vulnerable species such as, *Aquila nipalensis*, *Aythya ferina*, *Falco cherrug*, *Lutra lutra* and *Cyprinus carpio*. In addition, the flora in the riparian and surrounding area of the lake such as Almond and Oak forests provide habitat and food resources for a rich fauna, including several vulnerable and endangered species like *Panthera pardus*, *Tetraogallus caspius* and *Caracal caracal*. As the Site is located near the Tang-e Soulak Conservation Area and Forest Reserve, it plays an important role in maintaining populations of vulnerable and endangered species that live in the Forest and Conservation Area.

Criterion 3 : Biological diversity

Justification

The Site is rich in biodiversity in terms of birds, plants and fish. It is located near the Tang-e Soulak conservation area and Forest Reserve which has more than 300 plant species and more than 240 animal species. In the Site, there are 65 bird species, 4 fish species, 71 plants, 2 amphibians, 12 reptiles and 16 mammal species. The Lake is not connected to a river and has unique hydrological characteristics that maintain the biodiversity of the Middle East and Persian Gulf regions, and Zagros mountain ranges. Some important species of this lake include: *Lutra lutra*, *Cyprinus carpio*, *Aythya nyroca*, *Falco peregrinus*.

The Site is an important area for both terrestrial birds and waterbirds and forms a stop-over area for migrating birds - especially ducks. About 17 bird species (terrestrial and waterbirds) are nesting in the Site and most of them are dependent on the lake, the surrounding Almond and Oak Forest, and the ecotone area. There are four different habitat types: the open water of the lake, reed beds, meadows or marginal plant communities and *Tamarix* thickets. As there are no permanent surface water bodies in the surrounding areas, the Site also supports animal and terrestrial birds of the Zagros Mountain range and the Tang-e Soulak Conservation Area and Forest Reserve.

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

Optional text box to provide further information

This Site is an important habitat of breeding and wintering internationally important species such as *Anas crecca* (at least 45 pairs); *Fulica atra* (80-100 pairs), *Aythya nyroca* (11-16 pairs) and *Aythya ferina* (at least 5 pairs) which is listed as a vulnerable species on the IUCN Red list. Recently, a small number of *Vanellus gregarius* (at least 3 numbers) have been observed in the Site ("Critically Endangered"). Other noteworthy species of the area and its surroundings is *Lutra lutra* ("Near Threatened").

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

<no data available>

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

Phylum	Scientific name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
		2	4	6	9	3	5	7	8								
Others																	
CHORDATA/MAMMALIA	<i>Caracal caracal</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/MAMMALIA	<i>Lutra lutra</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input checked="" type="checkbox"/>	<input type="checkbox"/>		This species is a resident species in the wetland
CHORDATA/MAMMALIA	<i>Panthera pardus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/REPTILIA	<i>Testudo graeca</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		
Fish, Mollusc and Crustacea																	
CHORDATA/ACTINOPTERYGII	<i>Cyprinus carpio</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Spawning in the Site
CHORDATA/ACTINOPTERYGII	<i>Mesopotamichthys sharpeyi</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		Spawning in the Site
Birds																	
CHORDATA/AVES	<i>Anas crecca</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		This species breeds in the lake and is a resident species
CHORDATA/AVES	<i>Aquila nipalensis</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA/AVES	<i>Aythya ferina</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		This species winters at the Site
CHORDATA/AVES	<i>Aythya nyroca</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				NT	<input type="checkbox"/>	<input checked="" type="checkbox"/>		The lake is the breeding area of the <i>Aythya nyroca</i>
CHORDATA/AVES	<i>Falco cherrug</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
CHORDATA/AVES	<i>Falco peregrinoides</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Falco peregrinus</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Pelecanus onocrotalus</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input checked="" type="checkbox"/>		The species migrates to the Site in winter.
CHORDATA/AVES	<i>Podoces pleskei</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input type="checkbox"/>	<input type="checkbox"/>		The species is endemic to the area
CHORDATA/AVES	<i>Streptopelia turtur</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				VU	<input type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Tetraoallus caspius</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				LC	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
CHORDATA/AVES	<i>Vanellus gregarius</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				CR	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Recently small number of sociable lapwing have been observed breeding in the Site.

1) Percentage of the total biogeographic population at the site

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

<no data available>

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

4.1 - Ecological character

This Site is located in the south-west Iran and is about 20 hectares in size. The lake is permanent and brackish, and is used for raising livestock and maintaining fisheries. It is also important in ecotourism and recreation. The lake is moderately deep (average 13 meters) and in rainy seasons its water level reaches up to 35 meters, which also highlights the water storage function of the lake during rainy season.

Despite having a relatively smaller size, the Site supports a rich biodiversity. 170 species of birds, mammals, fish, reptile, and amphibian, floating, submerged vegetation and flowering plants live in this Site. The riparian vegetation is dominated by *Tamarix hispida* and *Phragmites australis* species almost from all sides. The Site is also surrounded by the Zagros Mountain Range along with almond and oak forests which inhabit numerous animal species, and rare birds and plants. The lake helps in recharging the groundwater which supports the almond and oak forests.

There are many threatened species listed under the IUCN Redlist and CITES, such as: *Lutra lutra*, *Cyprinus carpio*, *Falco pelegrinoides* and *Falco cherrug*. The main threats to the Site's ecological character are aquaculture and the loss of groundwater due to the severe droughts.

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
Saline, brackish or alkaline water > Lakes >> Q: Permanent saline/brackish/alkaline lakes	Barm Alvan	1	20	Unique

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Alhagi graecorum</i>	Traditionally used for food and medical treatments
TRACHEOPHYTA/LILIOPSIDA	<i>Phragmites australis</i>	Dominant riparian species
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Pistacia atlantica</i>	Traditionally used for food and medical treatments
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Prunus scoparia</i>	Traditionally used for food
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Quercus brantii</i>	Traditionally used for food and medical treatments, It is the dominant species in the surrounding areas
TRACHEOPHYTA/MAGNOLIOPSIDA	<i>Tamarix hispida</i>	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/AVES	<i>Anas acuta</i>				This species breeds in the wetland and a resident species
CHORDATA/AVES	<i>Anas platyrhynchos</i>				This species breeds in the wetland and a resident species
CHORDATA/AVES	<i>Anhinga rufa</i>				This species wintering at the site
CHORDATA/REPTILIA	<i>Apathya yassujica</i>				endemic
CHORDATA/AVES	<i>Aquila chrysaetos</i>				This species breeds in the wetland and a resident species
CHORDATA/AVES	<i>Falco tinnunculus</i>				It is a resident species in this area
CHORDATA/AVES	<i>Fulica atra</i>				This species breeds in the wetland and a resident species
CHORDATA/AVES	<i>Pycnonotus leucotis</i>				This species breeds in the wetland and a resident species
CHORDATA/MAMMALIA	<i>Sciurus anomalus</i>				endemic

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
B: Dry climate	BSh: Subtropical steppe (Low-latitude dry)

Average seasonal temperature variation in the lake fluctuates from 13.5 C° in winter to 33 C° in summer. The average amount of evaporation from the wetland is 1975.1 mm/year, which varies monthly. The average annual precipitation in the basin is about 600mm.

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

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

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

Basin of Hendijan-Jarahi

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

Water destination

Presence?	
Feeds groundwater	No change

Stability of water regime

Presence?	
Water levels largely stable	No change

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

The Site is located in a closed basin and no river feeds the lake. It is recorded that the lake is fed by an underground spring and precipitation. The depth of the lake in the deepest section is about 35 meters while the average of depth is about 13 meters. The lake does not have a natural outflow and its main source of water loss is through evaporation and uptake by vegetations. The lake has brackish water and the level of pollution is not very important.

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 lake

4.4.6 - Water pH

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

4.4.7 - Water salinity

- Fresh (<0.5 g/l)
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l)
- Euhaline/Eusaline (30-40 g/l)
- Hyperhaline/Hypersaline (>40 g/l)
- Unknown

4.4.8 - Dissolved or suspended nutrients in water

- Eutrophic
- Mesotrophic
- Oligotrophic
- Dystrophic
- Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the site itself: i) broadly similar ii) significantly different

Surrounding area has greater urbanisation or development

Surrounding area has higher human population density

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

Villages surround the Site and road constructions are ongoing around the Site. In addition the surrounding area has been predominantly covered by agricultural fields, and almond and oak forests.

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
Wetland non-food products	Livestock fodder	High
Wetland non-food products	Fuel wood/fibre	Medium
Wetland non-food products	Reeds and fibre	Low
Biochemical products	Extraction of material from biota	Medium
Genetic materials	Medicinal products	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Erosion protection	Soil, sediment and nutrient retention	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Medium
Climate regulation	Local climate regulation/buffering of change	High
Biological control of pests and disease	Support of predators of agricultural pests (e.g., birds feeding on locusts)	Medium
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Recreational hunting and fishing	High
Recreation and tourism	Nature observation and nature-based tourism	High
Recreation and tourism	Water sports and activities	Medium
Spiritual and inspirational	Contemporary cultural significance, including for arts and creative inspiration, and including existence values	Medium
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium
Scientific and educational	Long-term monitoring site	Medium
Scientific and educational	Major scientific study site	Low

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High
Soil formation	Sediment retention	Medium
Soil formation	Accumulation of organic matter	High
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:

This wetland plays an important role in reducing the phenomenon of dust for local communities.

Within the site: 100s

Outside the site: 1000s

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

4.5.2 - Social and cultural values

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

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

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

Description if applicable

The local communities around of the Site utilizes various ecosystem services for livelihood, livestock feeding, sport fishing and recreational. The interactions between local communities and wetland ecosystem are very important to maintain the ecological character of the Site.

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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

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

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: Kohgiluyeh and Boyer-Ahmad Provincial Office of the Department of the Environment, Modereyat Street, PO Box 7591653697, Yasouj, 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 Kohgiluyeh and Boyer-Ahmad.

Postal address: Kohgiluyeh and Boyer-Ahmad Provincial Office of the Department of the Environment, Modereyat Street, PO Box 7591653697, Yasouj, 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Water regulation

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

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Wood and pulp plantations	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Livestock farming and ranching	Low impact	Medium impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Marine and freshwater aquaculture	High impact	High impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Energy production and mining

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

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	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Hunting and collecting terrestrial animals	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gathering terrestrial plants	Low impact	Low impact	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Logging and wood harvesting	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fishing and harvesting aquatic resources	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Vegetation clearance/ land conversion	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Agricultural and forestry effluents	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Garbage and solid waste	Low impact	Medium impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Air-borne pollutants	Low impact	Low impact	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Climate change and severe weather

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

5.2.2 - Legal conservation status

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National wetland	Barm Alvan		whole

5.2.3 - IUCN protected areas categories (2008)

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

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Proposed
Re-vegetation	Proposed
Land conversion controls	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Proposed

Human Activities

Measures	Status
Livestock management/exclusion (excluding fisheries)	Proposed
Regulation/management of wastes	Partially implemented
Regulation/management of recreational activities	Partially implemented
Fisheries management/regulation	Partially implemented
Harvest controls/poaching enforcement	Implemented
Communication, education, and participation and awareness activities	Partially implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

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:

There is an education and ecotourism center (CEPA center) in this Site that provides facilities for visitor and local communities (especially students and women). This centre is managed by the Department of Environment (DOE) with local people participation. It plays an important role in education and raises public awareness about the importance of wetland protection in human lives.

5.2.6 - Planning for restoration

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

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Water quality	Proposed
Water regime monitoring	Proposed

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Hashtinejad, F., & Abbasi, A. (2015). Investigating the role of Barm Alvan lake in ecotourism development. First National Conference on Tourism Management and Geograph. <https://civilica.com/doc/248785/>. [In Persian]

Danaei, A., & Dabui, R. (2015). Investigating the role of Boram Alvan Lake (Kohgiluyeh and Boyer-Ahmad Provinces) in the sustainability of surrounding rural settlements. International Conference on Applied Research in Agriculture, Natural Resources and Environment. [In Persian]

Shakeri, S., Owliaie, H., Abtahi, A., & Azadi, A. (2016). Soil survey and land suitability assessment of saline and gypsiferous soils of Barm Alvan region, Kohgiluyeh and Boyer-Ahmad Province. Human & Environment, 13(3), 15-27. [In Persian]

Kohgiluyeh and Boyer-Ahmad Regional Water Authority. (2016). Investigation to determine the bed and boundary of Barm Alvan lake. [In Persian]

Golzar, E., Sadeghimehr, F., & Hedayikushk, H. (2019). Monitoring and evaluation of Barm Alvan wetland using remote sensing. 6th Regional Conference of Climate change. <https://civilica.com/doc/1002768/>. [In Persian].

Department of the Environment in Kohgiluyeh and Boyer-Ahmad. (2021). Reports and documents. [In Persian].

6.1.2 - Additional reports and documents

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

<1 file(s) uploaded>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

vi. other published literature

<no file available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



A view of Barm Alvan wetland (Rasoul Jahani pour, 02-02-2021)



A view of Barm Alvan wetland (Sayed Mohammad Hossein, 25-05-2018)



view of a natural water hole around of Barm Alvan wetland (Masoud Hatami-maneh, 01-05-2021)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2022-02-13