

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:

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Designation date

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Site Reference Number

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2. Date this sheet was completed/updated:

25 June 2003

3. Country: Islamic Republic of Iran

4. Name of the Ramsar site: Fereydoon Kenar, Ezbaran & Sorkh Ruds Ab-Bandans

5. Map of site included:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps.

a) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ♦

b) **digital (electronic) format** (optional): *yes* ♦

6. Geographical coordinates (latitude/longitude): 36°40'N, 52°33'E

7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

On the coastal plain of the South Caspian, just south of the town of Fereydoon Kenar and 13 km southwest of Babolsar, Mazandaran.

8. Elevation: (average and/or max. & min.)
23m below sea level

9. Area: (in hectares) 5,427 ha

10. Overview:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland. This site is in fact a Non-Shooting Area through the rice fields. The area is comprising four “Damgahs” or duck trapping areas (Fereydoon Kenar, Ezbaran, Eastern and Western Sorkh Ruds) and also a Wildlife Refuge (Fereydoon Kenar WR, 48ha.) is based in north eastern part of these damgah. Each damgah is comprising with a complex of shallow freshwater impoundments situated in harvested rice paddies where developed as a duck-hunting area, surrounded by forest strips and reed enclosures. The area is situated in the southeast Caspian lowlands; of outstanding importance as the winter quarters of the entire western population of the Siberian Crane (*Grus leucogeranus*), but also extremely important as a wintering area for many other species of waterfowl, notably dabbling ducks (*Anas* spp.) and Gees (*Anser* spp).

11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8

6, 2, 5, 3, 4

12. Justification for the application of each Criterion listed in 11. above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

2: Fereydoon Kenar Marshes are critically important as the regular wintering grounds of the known western population of Siberian Crane, *Grus leucogeranus* (7-14 birds, see table 1). Other endangered species using the site include Red-breasted Goose, *Branta ruficollis*, Lesser White-fronted Goose, *Anser erythropus*, Dalmatian Pelican, *Pelecanus crispus* and Pygmy Cormorant, *Phalacrocorax pygmaeus* (occasional visitors), wintering raptors such as *Falco* spp. and *Haliaeetus albicilla*.

3: The site is a particularly important area for migratory waterfowl, regularly supporting large numbers of birds and over 30 species. It is therefore of importance for conservation of the region’s biodiversity.

4: Based on current information, the site appears to support the entire western population of Siberian Cranes *Grus leucogeranus* in winter.

5: The site regularly holds well in excess of tens thousand waterfowl in winter, with up to 100,000 birds at any one time.

6: The wintering waterfowl includes over 1% of the regional populations of Great Cormorant, *Phalacrocorax carbo* (maximum 1,560); Greater white-fronted goose, *Anser albifrons* (maximum 1,700); Greylag Goose, *A. anser* (maximum 6,000), *Vanellus vanellus* and Black-tailed Godwit, *Limosa limosa* (maximum 5,000)

13. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) **biogeographic region:**

Sub- tropical and temperate rainforests

b) biogeographic regionalisation scheme (include reference citation):

Odwardi System

14. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

(whole area: 5427 ha.) Damgahs are a system of small circular or strip forests including ponds and channels surrounded by flooded rice paddies designed by villagers to catch ducks. Rice fields are under cultivation activities during spring and summer (April- early September), and become flooded in autumn and winter (October-March) with a depth of 10-30cm.

15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Forestry and Rice farming are from the main activities at the site's catchment.

16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Flooded condition is important for ground water recharge and also provide a supply of water for irrigation during the dry summer months.

17. Wetland Types

a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A • B • C • D • E • F • G • H • I • J • K • Zk(a)

Inland: L • M • N • O • P • Q • R • Sp • Ss • Tp Ts • U • Va •
Vt • W • Xf • Xp • Y • Zg • Zk(b)

Human-made: 1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

b) dominance: 3, 4, 2

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

The shallow impoundments support abundant floating and submerged aquatic vegetation and some fringing reed-beds of *Phragmites australis* and *Typha* sp. *Cyperus rotundus* (the principal food of the wintering cranes) is common. The surrounding plains are under rice cultivation.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

No information

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

The artificially-maintained shallow impoundments and extensive rice fields at Fereydoon Kenar provide excellent feeding and roosting habitat for large numbers of wintering waterfowl, notably *Phalacrocorax carbo* (maximum 1,560), dabbling ducks (maximum 200,000), *Anser albifrons* (maximum 1,700), *A. anser* (maximum 6,000), *Vanellus vanellus* (maximum 16,000) and *Limosa limosa* (maximum 5,000). Peak counts of dabbling ducks have included 14,500 *Anas penelope*, 20,000 *A. strepera*, 80,000 *A. crecca*, 80,000 *A. platyrhynchos*, 60,000 *A. acuta* and 12,000 *A. clypeata*. A small flock of 11 *Anser erythropus* was present in January 1992. Other wintering waterfowl have included up to 500 *Aythya ferina*, 330 *A. fuligula*, 900 *Fulica atra*, 15 *Pluvialis apricaria* and 40 *Gallinago gallinago*. These large concentrations of waterbirds attract a variety of wintering raptors including *Haliaeetus albicilla* (maximum 4), *Aquila heliaca*, *A. clanga* and *Falco peregrinus*. Large concentrations of *Philomachus pugnax* (maximum 2,800) have been recorded on spring migration. The wetland gained international fame in 1978 when ornithologists from the Department of the Environment discovered a tiny wintering population of the endangered Siberian Crane (*Grus leucogeranus*) at the site. The local duck-hunters were very familiar with the cranes, and reported that they had been coming to this area for many years. The cranes arrive in October and depart in mid-March. Since the discovery of the cranes in mid-January 1978, their numbers (except recent years that their numbers decreased to only 3 birds) have fluctuated between 7 and 14. The rediscovery of *Grus leucogeranus* in the South Caspian, after an absence of records for 60 years, has been described by Ashtiani (1987).

21. Social and cultural values:

e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

A very important traditional duck-trapping area, one of the few remaining sites in the South Caspian Lowlands where this practice has not been replaced by hunting with guns. The area is used for rice-farming outside the wintering period for waterfowl.

22. Land tenure/ownership:

(a) within the Ramsar site:

(b) in the surrounding area:

Both are privately owned by local farmers, with the exception of the Fereydoon Kenar Wildlife Refuge nearby, which is owned by the Department of the Environment.

23. Current land (including water) use:

(a) within the Ramsar site:

1. Duck-hunting for local consumption and export. The duck-hunting was originally developed as market hunting and provided many local people with a livelihood throughout the winter months, but in recent years, the primary interest of many hunters has been for sport. The hunters operate from trapping stations set on the embankment surrounding the main ab-bandan (flooded rice paddies), and use live decoy Mallard (*Anas platyrhynchos*) to lure other ducks (principally Mallard, but also occasionally Teal *A. crecca*) into flight nets. The duck-netting is carried out under licence from the Department of the Environment, each of trapping stations (each manned

by two men) being permitted to capture up to ten birds a day throughout the hunting season. The ab-bandans also provide a supply of water for irrigation during the dry summer months. The damgah contains several duck-trapping units named 'dooma'. Each dooma consists of a pond with two semi-circular channels leading from them. One channel connects the pond with the main flooded field where most of the waterfowl and cranes spend their day. The other channel ends blindly at a pen. During the trapping procedure, domestic ducks are thrown into the air in the direction of the pond. The heavy, poorly-flying ducks just manage to clear the patch of thorny brush planted around their cage and land noisily in the pond where they find the water strewn with floating grain. The sight and sound of these flying and feeding ducks arouse the curiosity of wild ducks in the main flooded field. They swim up the narrow channel to the pond where they are caught by trappers. Because of the height of the brush surrounding the pond and the narrowness of the channel, the wild ducks are unable to take flight and quickly trapped.

3. Agricultural activities (mainly rice farming) from April to early September.
4. Fish farming into the irrigation ponds.

(b) in the surroundings/catchment:

Rice farming, Fish farming, Cattle farming, Forestry plans...

24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

(a) within the Ramsar site:

(c) in the surrounding area:

(a): Fereydoon Kenar Non-Shooting Area (except Fereydoon Kenar Wildlife Refuge) is not among the protected areas network. This problem is an underlying cause of most threats to the wintering population of Siberian Cranes, including:

-End of Season Shoot-out: Towards the end of each season, when duck netting becomes unprofitable, the area is opened up to hunting with guns in a massive "shoot-out". There is a potential threat that Siberian Cranes could be shot accidentally. This is the single greatest threat to the surviving flock of Siberian Cranes. In March 2000, the end of season "shoot out" happened whilst the Siberian Cranes were still present. This was an extremely dangerous situation and it is very fortunate that no cranes were shot. They were still seriously disturbed by the shoot-out, and were forced to leave the site early (being subsequently located at Ardabil). Since 2001, Department of Environment designate a Non-Shooting Area for whole area of Fereydoon Kenar with an a total area of 5,427 ha. From this time eand of season shoot out became strongly forbidden.

-Aerial nets: The damgah has been maintained by the local community for the purposes of trapping ducks. The local duck-trappers are concerned at the level of human disturbance and prevent shooting in the area, which is probably the only reason the Siberian Cranes have survived. The traditional use of captive ducks and baited ponds with clap-nets is legal. The aerial nets used around the damgah present more of a problem because they are illegal. The options are to register them (under licence from DoE, with negotiated conditions), or to phase them out over a period of time with the full agreement of the trappers. Some compensation or other benefits would be necessary for the second option. However, there is no report about accident of Siberian Cranes with aerial nets.

(b): Widespread shooting and the use of aerial nets in the surrounding area represent a threat to the Siberian Cranes and other endangered species using the area. The incidence of lead poisoning in waterfowl is poorly known, but may be significant. Overhead power cables pose a hazard to large waterbirds in flight, including the Siberian Cranes.

25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

To ensure that the waterfowl are not disturbed, the duck trappers enforce a very strict ban not only on shooting activities in the area, but also on all other unnecessary human activity. As a result, the damgah wetland and surrounding paddies constitute one of the best protected and least disturbed wetlands in the South Caspian lowlands. Few birds other than *Anas platyrhynchos* and *A. crecca* are trapped, and thus for the many thousands of other ducks, geese and shorebirds and for the cranes, conditions are ideal. The site has been identified as an "Important Bird Area" by BirdLife International (Evans, 1994). The site has become as a Non Shooting Area since June 2001, covering Fereydoon Kenar, Ezbaran, Easter & Western Sorkh Rud Damgahs and Fereydoon Kenar Wildlife Refuge including a buffer zone around each of these areas. Fereydoon Kenar Wildlife Refuge (48 ha.) is situated 2km to the NE of the Fereydoon Kenar damgah.

26. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

It is Preparatory activities have been undertaken in order to receive a 8ha block of land from the Office of Natural Resources. It is currently covered by degraded forest and lies immediately adjacent to the south end of the area used by the Siberian Cranes. This would allow consideration of the establishment of a monitoring/guard under the GEF project on Siberian Crane Wetlands.

27. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Annual mid-winter waterfowl censuses have been carried out by the Ornithology Unit, Department of the Environment, since 1974. During the annual mid-January waterfowl census in 1978, ornithologists of the Department of Environment discovered a flock of about 11 Siberian cranes near the southeast Caspian town of Fereydoon Kenar. It was the first sighting after 60 years. According to the local villagers, these cranes were yearly visitors to the flooded fields near the town and, like their conspecifics in India, spent their time wading in shallow water and digging plant roots. This population has been monitored closely since its discovery in 1978, and the Department of the Environment has established a long-term research and conservation project on the cranes, through:

(a): Memorandum of Understanding (MoU): Iran and nine countries "Range States" have joined an international effort through the adoption, in 1993, of a *Memorandum of Understanding concerning Conservation Measures for the Siberian Crane* (MoU) under the auspices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) to help further protect and conserve this important endangered species. Under the CMS MoU (updated in 1998), the participating Range States have committed to identify and conserve wetland habitats essential to the survival of Siberian Cranes, to co-operate with international organizations and other Range States and to develop a long-term Conservation Plan.

The following activities concerning Fereydoon Kenar were assigned to the I.R.Iran under the Conservation Plan, to be undertaken in 1999-2000:

- Establish an education centre/bird garden with Babolsar municipality; Russian Federation (Oka) to provide a pair of Siberian cranes for this purpose.
- Establish new NGOs.
- Provide information by e-mail to Azerbaijan about start of spring migration in order to facilitate Azerbaijan planning for monitoring.
- Attach a PTT to a wild chick on the wintering ground in order to locate and protect the region in which sub-adult cranes spend the summer.
- Organize a guard system through NGOs to keep intruders away from the cranes at Fereydoon Kenar.
- Work towards the objective of obtaining long-term leases of suitable crane habitat
- Study possible construction of an observation tower at Fereydoon Kenar in collaboration with NGOs and Finish sponsors.

(b): GEF project on Wetlands for Siberian Cranes: Following a period of intensive preparation led by the International Crane Foundation (ICF), a Global Environment Facility (GEF) project on the *Conservation of the Globally Significant Wetlands and Migratory Corridors required by Siberian Cranes and other Globally Significant Migratory Water birds* began in March 2000. Project proposal discussed at the third Siberian Crane range country meeting held at Ramsar, I.R. Iran in December 1998, and a preliminary draft of work plan approved by the meeting and appended to the proposal. The PDF B phase of the project, which covers China, the Islamic Republic of Iran, Kazakhstan and the Russian Federation, will be completed in March 2001 with the submission of a comprehensive six-year Full Project proposal. The project is being implemented through UNEP, and is being coordinated by ICF and the Convention on Migratory Species. The Project aims to conserve the critical sites that are used by Siberian Cranes for breeding (in Russia), staging during migration (all four countries), and the main wintering grounds (in China and Iran). National experts are carrying out the work in each of these countries. The damgah complex at Fereydoon Kenar, Ezbaran and Sorkhe Rud is one of the selected project sites.

28. Current conservation education:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.
None.

29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.
A few informal visits by local and foreign birdwatchers only.

30. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

a) territorial jurisdiction: Fereydoon Kenar local government

b) functional jurisdiction: Local farmers and duck trappers (except Fereydoon Kenar Wildlife Refuge)

31. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

None *per se*, as the area is managed by local farmers and duck trappers. (Fereydoon Kenar Wildlife Refuge is managed by DoE's Mazandaran Provincial Office)

32. Bibliographical references:

scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

1. Archibald, G. (1992). Ron Sauey and the Siberian Cranes. *Journal of Ecological Society*, Vol. 5, 1992, ICF, Baraboo, Wisconsin, USA.
2. Bugle (1978). Mile Stones, *International Crane Foundation Quarterly Newsletter*, Volume 4, Number 2, ICF, Baraboo, Wisconsin, USA.
3. Bugle (1996). The Mystery of the Missing Siberians, *International Crane Foundation Quarterly Newsletter*, Volume 22, Number 4, ICF, Baraboo, Wisconsin, USA.
4. Prentice, C.. (2000). Trip Report, Islamic Republic of Iran, 1-9 June 2000. GEF Siberian Cranes Wetlands Project.
5. Farhadpour, H (1985). Capturing Common Crane with Alpha-chloralose, 1st meeting of the Working Group on European Cranes. (Oroshaza-Kardoskut, Hungary 21-26 October 1985). Department of Environment, I.R. Iran.
6. GEF Project on Siberian Cranes (1999). Proposal for a PDF block B grant. (Conservation of the Globally Significant Wetlands and Migratory Corridors required by Siberian Cranes and other Globally Significant Migratory Water birds in Asia).
7. Kelly, M. (1998). Project "Sterkh": Summary of Siberian Crane Reintroduction Program 1983-1998. International Crane Foundation. Baraboo, Wisconsin, USA.
8. Mirande, C. & Prentice, C. (2000). New GEF Project Begins on Wetlands for Siberian Cranes. *CMS Bulletin*. Issue no. 11, August 2000. UNEP/CMS Secretariat, Bonn, Germany.
9. Sadeghi-Zadegan, S. (1998). An Overview to the Historical Situation of the Siberian Crane and Common Crane in Iran. Report of the Third Meeting of Siberian Crane range States, 8-13 December 1998, Ramsar, I.R.Iran.
10. Sadeghi-Zadegan, S. (2000). Status of Siberian Crane in the Islamic Republic of Iran and activities to restore the western population. Proposed paper to the IVth European Crane Workshop. 11-13 November 2000, Verdun, France.
11. Scott, D.A. (1995). *A Directory of Wetlands in the Middle East*, IUCN, Gland, Switzerland and IWRB, Slimbridge, UK.
12. UNEP/CMS. (1999). *Conservation Measures for the Siberian Crane*. CMS Technical Series Publication No.1, UNEP/CMS Secretariat, Bonn, Germany.

Table 1: The number of the Siberian Cranes wintering in Iran (Fereydoon Kenar):

Year (winter)	Number	Year (winter)	Number
1977-78	11-14	1991-92	10
1981-82	8	1992-93	11
1982-83	5	1993-94	10
1983-84	7	1994-95	8-10
1984-85	10	1995-96	9
1985-86	11	1996-97	7-8
1986-87	11	1997-98	7-9
1987-88	10-11	1998-99	6-14*
1988-89	11-14	1999-2000	7
1989-90	8-10	2000-2001	5-6
1990-91	9	2001-2002	3
		2002-2003	3

* (According to various reports)

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