

Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

Available for download from http://www.ramsar.org/ris/key_ris_index.htm.

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes 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. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3rd edition). A 4th edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all 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:

1 April 2009

3. Country:

Turkmenistan

4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Turkmenbashy Bay

5. Designation of new Ramsar site or update of existing site:

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site ; or
b) Updated information on an existing Ramsar site
-

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
ii) the boundary has been extended ; or
iii) the boundary has been restricted**

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
ii) the area has been extended ; or
iii) the area has been reduced**

** **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site:

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

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List): ;
ii) an electronic format (e.g. a JPEG or ArcView image) ;
iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The boundary of the site follows the Turkmenbashy Bay with an average of 1 km coastal zone.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

Central coordinate: 39°47.47N 53°21.70E

9. General location:

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

Turkmenbashy Bay - Western Turkmenistan, Balkan Administrative Region, Turkmenbashy Administrative District, nearest city – Turkmenbashy

Turkmenbashy Bay 70,000 inhabitants, capital city of the region Balkanabad – 150 km to the East, about 105 000 inhabitants. The municipality of Turkmenbashy town (population of 100,000) is located in the north part of the site.

10. Elevation: (in metres: average and/or maximum & minimum)

Minimum: 2m Maximum: 70m (Mountain Karadag at the north shore)

11. Area: (in hectares)

267,124 ha

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The site encompasses several bays of the Caspian Sea: Turkmenbashy, Balkan, North-Cheleken and Mikhailovsky which are separated from the open sea by Krasnovodskiy and North-Cheleken Spits. The north of the territory is limited by ledges of the Krasnovodskiy Plateau, in the south by the Cheleken Peninsula, and in the northeast by the Dardzha Peninsula. The relief of the site can be divided into 3 basic components: a) shallow brackish bays having open access to each other and separated from the sea by sandy spits; b) sandy-shelly spits, islands and dunes, overgrown with halophytes; c) stony islands in Balkan Bay, including the largest - Dagada - with an area of 120 hectares. The coastal shallow waters of the southeast Caspian Sea are the largest flyway, and also the largest wintering area, of waterfowl and waterbirds nesting in Western Siberia, Kazakhstan and other regions of Northern Asia.

13. Ramsar Criteria:

Tick the box under 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). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 8 • 9

14. Justification for the application of each Criterion listed in 13 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).

Criterion 2.

The wetland supports the following threatened species which have national and/or international status.

Turkmen name	Russian name	English name	Latin name	Turkmenistan Red Data Book (1999)	IUCN Red List	CITES (1997)	CMS
Insecta							
Kaspi iylanbalygy	Каспийская минога	Caspian lamprey	<i>Caspiomyzon wagneri</i> (Kesser, 1870)	IV	NT	-	-
Bekre	Шшш	Barbel	<i>Acipenser</i>	I	CR	-	

Turkmen name	Russian name	English name	Latin name	Turkmenistan Red Data Book (1999)	IUCN Red List	CITES (1997)	CMS
balyk (Sop balyk)		sturgeon	<i>nudiventris</i> (Lovetsky, 1828)				-
Birds							
Gyzgylt gotan	Розовый пеликан	Great White Pelican	<i>Pelecanus onocrotalus</i> (Linnaeus, 1758)	II	LC	-	Appendix I
Buiraly gotan	Кудрявый пеликан	Dalmatian Pelican	<i>Pelecanus crispus</i> (Bruch, 1832)	III	VU	-	Appendix I
Kichi sakargaz	Пискулька	Lesser White-fronted Goose	<i>Anser erythropus</i> (Linnaeus, 1758)	IV	VU	-	Appendix I
Ekinchi ordek	Мраморный чирок	Marbled Teal	<i>Marmaronetta angustirostris</i> (Menetries, 1832)	III	VU	-	Appendix I
Korzhe	Савка	White-headed Duck	<i>Oxyura leucocephala</i> (Scopoli, 1769)	II	EN	-	Appendix I
Balykchy gyrgy	Скопа	Osprey	<i>Pandion haliaetus</i> (Linnaeus, 1758)	+III	LC	-	Appendix II
Chakyryk	Авдотка	Eurasian Thick-knee	<i>Burhinus oedicnemus</i> (Linnaeus, 1758)	III	LC	-	Appendix II
Gara depeli tekezhylyk	Кречетка	Sociable Lapwing	<i>Chettusia gregaria</i> (Pallas, 1771)	III	CR	-	Appendix I
Mammals							
Itaiy	Медоед	Honey Badger	<i>Mellivora capensis</i> (Schreber, 1776)	II	LC	Appendix I	-
Suvity	Каспийский тюлень	Caspian Seal	<i>Phoca caspica</i> (Gmelin, 1788)	-	EN	-	-
Fish							
Bekre balyk	Русский осетр	Russian Sturgeon	<i>Acipenser gueldenstaedtii</i> (Brandt, 1833)	-	CR	-	Appendix II

Categories for Turkmenistan Red Data Book:

I – Vanishing species (or under a threat of becoming endangered)

II – Declining species

III – Rare species

IV – Poorly known (indeterminate) species

Criterion 3.

This site is a hotspot for biodiversity, 296 birds species have been recorded, including 138 waterbird species, among them, more than half occur during migration and winter. This site is IBA and conserves a number of important and endangered species such as: Dalmatian Pelican (*Pelecanus crispus*) and the White-

headed Duck (*Oxyura leucocephala*). In the summer period there are grebes, cormorants, sandpipers and numerous gulls forming sometimes multi-thousand colonies in bays and on islands.

The most interesting species is the Caspian Seal (*Phoca caspica*) which is endemic to the Caspian Sea, and is listed on the IUCN Red List as endangered. Recently the number of seals has dramatically decreased, therefore only single individuals may migrate to Turkmenbashi Bay.

Criteria 4.

This site is a source of food for fish during migration, fattening and partial spawning, as well as for seals. Abundant waterfowl (dominated by coots) and wading birds are present in winter and in summer, nesting seabirds also feed here. This site is located on one of the most important migratory flyways of the Afro-Eurasian Flyway (AEWA) and part of Central Asian - Indian Flyway (CAW) for waterbirds breeding in Western Siberia, Kazakhstan and other regions of Central Asia, providing a valuable stopover and wintering site.

Criterion 5.

Being located on the migratory flyways of the Afro-Eurasian Flyway (AEWA) and part of Central Asian - Indian Flyway (CAW), it was estimated (in the 20th century) that about 5-8 million waterbirds passed along the eastern coast of the Caspian Sea on migration, and up to 0.8 million birds wintered in the site. Between 1971 – 2005, the number of waterfowl (geese, swans, ducks and coots) recorded at the site was, 22,409 to 568,530 (average 171,785) in November and from 47,654 to 688,471 (average 215,088) in January. The dominant species, whose numbers exceed 20,000 individuals is the Common Coot (*Fulica atra*), (up to 48,000), Common Teal (*Anas crecca*) (up to 27,000), Mallard (*Anas platyrhynchos*) (up to 21,000), Red-crested Pochard (*Netta rufina*) (up to 50,000), Common Pochard (*Aythya ferina*) (up to 33,000), Tufted Duck (*Aythya fuligula*) (up to 20,000) and in some years, also Mute Swan (*Cygnus olor*) and Whooper Swan (*Cygnus cygnus*). Over 25,000 Greater Flamingo (*Phoenicopterus roseus*) can occur on migration and in winter.

Criterion 6.

1% of the individuals in a population supported by this site

English, Russian or Kazakh name	Scientific Name	Subspecies / Population (if applicable)	Count/s	1% threshold
Lesser White-fronted Goose	<i>Anser erythropus</i>	N Europe, Arctic W Siberia (br)	Year: 2002 249 individuals (Vasiliev et.al., 2006)	110 individuals
White-headed Duck	<i>Oxyura leucocephala</i>	E Mediterranean, SW Asia	Year: 2007 4350 individuals during spring migration .Average 565 individuals (Rustamov et al., 2009).	75 individuals

Criterion 8.

Turkmenbashi Bay is place for many fish species. The many bays serve as nurseries for the maturation of Herring (*Alosa brashnikovi*, *A. kessleri*) and other fish. Breeding bottom freshwater fish, such Roach (*Rutilus rutilus*) and Common Carp (*Cyprinus carpio*) which are found in the Etrek River eventually find its way into the Caspian Sea.

15. 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:

The site is situated in the Eurasian Deserts and Semi-Deserts zone

b) biogeographic regionalisation scheme (include reference citation):

Scheme of eco-regions WWF

16. 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.

The site encompasses several bays of the Caspian Sea: Turkmenbashi, Balkan, North-Cheleken and Mikhailovsky which are separated from the open sea by Krasnovodskiy and North-Cheleken Spits. The north of the territory is limited by ledges of the Krasnovodskiy Plateau, in the south by the Cheleken Peninsula, and in the northeast by the Dardzha Peninsula. The relief of the site can be divided into 3 basic components: a) shallow brackish bays having open access to each other and separated from the sea by sandy spits; b) sandy - shelly spits, islands and dunes, overgrown with halophytes; c) stony islands in Balkan Bay, including the largest - Dagada - with an area of 120 hectares. Alongside natural processes increasing the area of wetlands over the last 10 years. The main vegetation communities are various types of macrophytes in shallow bays and on the coast. The vegetation of the bays is represented by groups of lower plants (seaweeds) and higher flowering plants (sea grasses). In addition to these macroscopicals, there are many hundreds of species of microscopic seaweed - in the plankton and benthos.

The main factor determining the sea shore dynamic and therefore the wetlands characteristics is the hydrological regime that is effected by long-term (centuries-old) fluctuations of Caspian Sea level.

Geological peculiarities of the site related with past and current activities of the Caspian Sea. Seashore forms with tertiary and quaternary sea sediments. Relief is typical for seaside accumulative plain, where interchange of sandy massifs and sandy saline lands are registered.

Soil cover consists of grey-brownish soil of sandy and stony areas. The young drained substratum of islands and coastal areas, hydromorphic salt marshes (solonchaks) and weakly-fixed sand dunes (Dardja Peninsula). Soils are of natural origin. The most typical landscapes are landscapes of sea bays and shallow waters. Sand spits and islands are also present. The coastal area is characterized by landscape elements of caspian sand and salt marsh accumulative terrace. The main definitive factor is the dynamics of the sea level.

Tide fluctuations and variations are not significant and appear as a result of fetches caused by winds. Climate is continental with large fluctuations of daily and seasonal temperatures, with small amount of rains and with the intensive solar radiation (more than 150 kkal per square centimeter per year). Average annual temperature is +15.8°C, average in July +28°, January -4°; absolute maximum +47°, minimum -21°C. Frost free period continues usually 270-275 days, including air temperature higher than 10°C for at least 250 days.

Dominant wind direction is north-west. In the summer it cools the area, in the winter - south east winds lead to warming in the winter and to the heat in the summer. The average wind speed is 6-9 m/sec. However, in summer, strong winds occur (20-25 m/sec), followed by dust storms. Precipitation is 100-120 mm/year. The snow falls rarely. Shallow parts of the Turkmenbashi Bay are getting frozen almost every year, but the ice does not stay for a long time (up to 2 weeks in January). There are extremely cold winters (1968/69, 1971/72, 1976/77, 1984/85, 2007/08) where almost the entire bay is covered by ice.

17. Physical features of the catchment area:

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

Turkmenbashi Bay is part of the marine area of the Caspian Sea. There are no streams flowing into the bay.

18. Hydrological values:

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

Stabilize and mitigate climate. Delineations of coast line are showing considerable dynamic as a result of cycle changes of the Caspian Sea level. Marine water is not used for consumption

Caspian Sea influences the temperature – humidity conditions. Coastal Caspian Zone greatly mitigates climate conditions.

Rivers play an important role in the balance of water in the Caspian Sea. There are more than 130 large and small rivers that flow into Caspian Sea. Climate change and the use of water for consumption is said to impact river flows.

19. 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:

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.

A, E

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Bays within the site provide rich food reserves for fish and birds. Bays cover nearly 180,000 square meters with maximum depths of nearly 10 meters and prevailing depths of 5-7 meters. Vast communities of macrophyte algae and benthos have formed there, with a total estimated bio-mass of 700,000 tons. The benthos of the bay includes 855 species of algae and invertebrates.

The coastal area, foothills and ridges of the northern shore of Turkmenbashi Bay is the most diverse in ecosystems and species. It consists of undulating coastal sands and alkaline soils, sandy, pebble and oozy-sand beaches, with narrow strips of alluvial deposits with bushes of glassworts and tamarisks, ravines, loamy and rubble canyons and rocky slopes with small caves, niches and tali of weathered deposits. Plant diversity is high (400 species) and attracts numerous insects and other invertebrates, which, in turn, are feeding objects for green toads (*Bufo viridis*), reptiles, birds, insectivorous mammals and greater animals. Nearly 200 bird species have been recorded. This area is one of the sites of mass wintering of White-tailed Eagle (*Haliaeetus albicilla*), which has been recently included in the Red Data Book. On some days more than 20 individuals can be observed. The adjacent shallow waters preserve their significance as places of rest, feeding and wintering for many migrating birds.

Land areas of the coastal buffer zone is a zone of sand beaches, alkaline soils, small-bump coastal sands, barchan and ridge-barchan sands of aeoline origin.

Coastal islands are major nesting sites for colonies of terns, gulls and sandpipers as well as habitats of water snakes and seals. They include the small coastal islands on the entrance to Turkmenbashi Bay and islands on the northern shore of the Cheleken Peninsula. Several species nest there: Great-crested

Grebe (*Podiceps cristatus*), Great Cormorant (*Phalacrocorax carbo*), Little Ringed Plover (*Charadrius dubius*) Snowy Plover (*Charadrius alexandrinus*), Gull-billed Tern (*Sterna nilotica*), Sandwich Tern (*Sterna sandwicensis*), Common Tern (*Sterna hirundo*) and Little Tern (*Sterna albifrons*) (from Hazar Reserve management plan).

The vegetation of the bays is represented by groups of lower plants (seaweeds) and higher flowering plants (sea grasses). Green (28 species), red (11 species) and brown (1 species) seaweeds form thickets on the shores down to a depth of 6m. In addition to these macroscopicals, there are many hundreds of species of microscopic seaweed - in the plankton and benthic organisms.

Ecological services of the site include the following:

While most of Turkmenbashy Bay is a strictly protected area of Hazar State Reserve, fishing is allowed by some local government directive, and this contributes to local economy, especially for small villages around the bay. Estimated 200 fishermen use the site for fishing with more than 1000 people in total depending on fishery resources. Until recently, the northern part of the bay was an official hunting ground, with at least 500 hunters depending on hunting of birds during autumn and winter times. 40% of food and income for families come from resources from the bay. At present, the Hazar Reserve prepares documents on the inclusion of the north of the site into the protected area as sakaznik with controlled use of biological resources and other economic activities.

Other ecosystem services of the site including supporting services (purification of polluted waters), cultural services (cultural, intellectual and spiritual inspirations) and preserving services, are yet to be studied and discovered.

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, 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.*

There are 502 species of vascular plants in total from 269 genus and 65 families; 41 species of seaweed–macrophytes and 5 species of flowering plants occur in the bays. The main vegetation communities in the reserve are various types of desert, floodplains and dry subtropics, plus macrophytes in shallow bays and on the coast. Flowering plants are represented by a few species: *Zostera* sp, *Ruppia* sp, *Potamogeton* sp, *Najas marina*. They grow mainly on sandy soils and in water up to a depth of 4.5 m. Accumulation of algae is registered in Kyzylsu Bay.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. 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.*

Globally threatened species, with populations lesser then threshold values

Common name	Scientific name	Subspecies / Population (if applicable)	Count/s	1% threshold
Ferruginous Duck	<i>Aythya nyroca</i>	SW Asia & NE Africa (non-br)	At migration stages till 500 ind.	1000
Dalmatian Pelican	<i>Pelecanus crispus</i>	SW, S Asia (non-br)	Very rare	110
Marbled Teal	<i>Marmaronetta angustirostris</i>	SW Asia (non-br)	Very rare	100

Table lists those some species which are not recognised as internationally threatened but which have national status and it also includes threatened **landbirds**. As such, these species are noteworthy to mention here.

Turkmen name	Russian name	English name	Latin name	Turkmenistan Red Data Book (1999)	IUCN Red List	CITES (1997)	CMS
Flora							
Oyukly teloshistes	Телосхистес ямчатый		<i>Teloschistes lacunosus</i> (Rupr.) Savicz, 1934	III			
Zakaspi shorasy	Солянка закаспийская	Trans-Caspian saltwort	<i>Salsola transhyrcanica</i> (Ijtin, 1933)	III	-	-	-
Eihval'dyn sozeni	Песчаная акация Эйхвальда	-	<i>Ammodendron eichwaldii</i> (Ledeb. 1853)	III	-	-	-
Chegemik	Мягкоплодный критмолистный	-	<i>Malacocarpus crithmifolius</i> (Retz.) (C.A. Mey. 1843)	II	Data deficient	-	-
Moh gornushli laziopogon	Лазипогон моховидный	-	<i>Lasiopogon muscoides</i> (Desf.) (DC. 1837)	III	-	-	-
Androsovy n fagnalony	Фагналон Андросова	-	<i>Phagnalon androssovii</i> (B. Fedtsch. 1949)	II	-	-	-
Insecta							
Bolivaryn hudayatysy	Боливария короткокрылая	-	<i>Bolivaria brachyptera</i> (Pallas, 1773)	II	-	-	-
Garaganat murtlak chekirtge	Кузнечик темнокрылый	-	<i>Ceraeocercus fuscipennis</i> (Uvarov, 1910)	III	-	-	-
Volga takgazy	Волжская сельдь	-	<i>Alosa kessleri volgensis</i> (Berg, 1913)	II	LC	-	-
Kaspi azatmahysy	Каспийская кумжа	Caspian trout	<i>Salmo trutta caspius</i> (Kessler, 1870)	III	-	-	-
Birds							
Kashykburun	Колпица	Common Spoonbill	<i>Platalea leucorodia</i> (Linnaeus, 1758)	III	-	-	-
Gyzylgaz	Обыкновенный фламинго	Greater flamingo	<i>Phoenicopterus roseus</i> (Pallas, 1811)	III	LC	-	-
Burgut	Беркут	Golden Eagle	<i>Aquila chrysaetos</i> (Linnaeus, 1758)	III	LC	-	-
Gok bahry	Сапсан	Peregrine	<i>Falco peregrinus</i>	III	LC	-	-

Turkmen name	Russian name	English name	Latin name	Turkmenistan Red Data Book (1999)	IUCN Red List	CITES (1997)	CMS
		Falcon	(Tunstall, 1771)				
Soltantovuk (Shatovuk)	Суланка	Purple Swampphen	<i>Porphyrio porphyrio</i> (Linnaeus, 1758)		LC	-	-
Mazargaragushy	Могильник	Eastern Imperial Eagle	<i>Aquila heliaca</i> (Savigny, 1809)	II	VU	-	Appendix I
Uzynguiruk garagush	Орлан-ДОЛГОХВОСТ	Pallas's Fish-eagle	<i>Haliaeetus leucoryphus</i> (Pallas, 1771)	II	VU	-	Appendix I
Sehragovenegi	Степная пустельга	Lesser Kestrel	<i>Falco naumanni</i> (Fleischer, 1818)	III	VU	-	Appendix I
Huvi	Филин	Eurasian Eagle-owl	<i>Bubo bubo</i> (Linnaeus, 1758)	III	LC	-	-
Mammals							
Garagulak	Каракал	Caracal	<i>Felis caracal</i> (Schreber, 1776)	II	-	-	-
Blanfordyn yalmany	Тупшканчик Бланфорда	Blanford's Jerboa	<i>Jaculus blanfordi</i> (Murray, 1884)	+II	LC	-	-
Sychan shekilli homyakzhagaz	МЫШЕВИДНЫЙ ХОМЯЧОК	Afghan Mouse-like Hamster	<i>Calomyscus mystax</i> (Kashkarov, 1925)	+III	LC	-	-

Fish are represented by 10 valuable species: Herring (*Caspialosa* sp.), Mullet (*Mugil* sp.), *Rutilus* sp., *Cyprinus* sp., *Artedius* sp., *Atherina* sp., *Clupeonella* sp., *Aspius* sp., *Salma* sp. Bays provide spawning grounds for commercial fish. Amphibians: Lake Frog (*Rana ridibunda*) and Green Toad (*Bufo viridis*). Reptiles- *Echis caruinatus*, *Agama sanquinolenta* and *Laudakia caucasicus* (all uncommon) - at the foot of Garadag Mountain and the Ufra Peninsula - Tessellated Water Snake (*Natrix tessellata*) is numerous everywhere where there are reed thickets, in particular on Krasnovodskiy Spit. Mammals - about 50 species of which 19 are rodents, 13 - predators, 7 - insectivores and Chiroptera, 2 - ungulates, 1 - Pinnipedia. The most interesting species is the Caspian Seal (*Phoca caspica*). In 1980, large congregations of seals occurred on Bolshoy Osushnoy Island.

23. Social and cultural values:

a) Describe if the site has any general social and/or 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:

Among social values, the fishery is worth to mention. The shallow waters of the reserve form an important breeding and nursery area for many species (though not for Sturgeon, which do not breed here) and a sheltered feeding area for many species in winter. This has a potentially significant economic value, which is not yet evaluated.

Historical significance of the reserve is not obvious and not thoroughly studied from the period of the late medieval (17 century) until today, though the area was populated from the Neolithic times. The ancient Oxus River (now Amy-Darya river) flowed into Turkmenbashi Bay allowing migration of civilizations (II-I millennia b. c. and medieval 13-16 century a.c.) during ancient times. The neolithic settlements, mostly in caves, were discovered here in the coastal mountain areas in the north of the bay in the middle of the 20th century; these are of the earliest discovered in the region. The area around the site

was populated with nomad Turkmen and some Kazakh community tribes and was used mainly as traditional fishery and lesser hunting grounds. The establishment of the relations with Russian Empire in the 18th century significantly improved the position of local population to access the local resources. The region significance particularly started to increase in the 19th century when the large quantities of oil were discovered and explored in the Cheleken Peninsula.

Traditional communities located around the site are still exercising traditional livelihoods which are directly related to the wetland services. Some of these communities, such settlements of Gyzylsuw, have the high level of dependency on biological resources of the site and preserve some of the traditional knowledge on hunting, fishing and processing.

Economic value of the site includes the following elements.

- As an integral part of the development of the oil and gas industry around the reserve: the site borders with one of the largest refineries in the Caspian, in the southern border of the site oil exploration takes place.
- As the important transportation corridor, Turkmenbashy Bay is crossed by the navigation canal which connects the Caspian Sea with the important oil terminal and sea port, with cargo and oil traffic exceeding 4 million tons per year.
- For local communities of Turkmenbashy Town and smaller settlements of Turkmenbashy, Yangadja, Garatengir and Belek, it represents the main ground for fishing and hunting.
- Turkmenbashy Bay and surrounding caspian coastal areas are nationally recognized as tourist places, especially during summer times. Several hundred thousand national tourists come to visit this coastal area. The government has launched USD multi-billion investment project to create a international tourist zone in Avaza, only 10 km from the site. This site would become increasingly important as a tourist attraction, especially for ecotourism, for international and local visitors.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box and describe this importance under one or more of the following categories:

- i) sites, which provide 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:

The long history of protected area management provide almost untouched preserved landscape and biodiversity, while maintaining traditional uses of the site. This practice has to be maintained in order to preserve the ecological character of the wetland. The interaction with local communities and their involvement in conservation activities should continue to be encouraged and supported.

- ii) sites, which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

Since local communities depend on the biodiversity of the site, there is increasing pressure on the biological diversity, especially on migratory birds from the local communities, requiring the introduction of conservation activities and establishment working relations with the local communities.

- iv) sites where 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
-

24. Land tenure/ownership:

a) within the Ramsar site: State ownership.

b) in the surrounding area: State ownership.

25. Current land (including water) use:

a) within the Ramsar site:

Nature conservation and research – 72 % of the site is designated as a territory of Hazar State Reserve- a strictly protected area.

Transport marine channel is located across the site; ships pass through this channel, connecting oil terminal and cargo port which are bordering with the site. There is the Turkmenbashi Oil Processing Factory and Turkmenbashi Power plant.

The hunting grounds located in the north of the reserve was closed from 2008, providing the opportunity to increase the territory of the protected area to almost 90% of the site. The site waters are subject to limited fishing activities by local fishermen and hunting is limited to areas outside of the protected area.

While most of Turkmenbashi Bay is a strictly protected area of the Hazar State Reserve, fishing is allowed by some local government directive.

b) in the surroundings/catchments: Land use:

Tourism and recreation, oil and gas production

Today, there is legal foundation for the creation of a functioning national tourist zone. So, since August 2007, the first new “Avaza” Tourist Complex was announced, and this is located close to the north-west border of the site. Turkmenbashi Town was announced as the first Free Economical Tourist Zone in Turkmenistan.

On the north-western border of the site, on the coastal 800 km zone of Turkmenistan section of the Caspian Sea, there is a large scale construction of the new “Avaza” Tourist Complex, one of the biggest complexes on the Caspian Sea.

Large oil exploration and extraction areas are located south of the site. There are oil pipes bordering some parts of the site.

There are settlements with a population of around 150,000 living around the site with one large municipality and a half a dozen smaller settlements. The important rail and road transportation network borders the reserve in the north.

Agricultural use is limited to pasture land mainly in the northern part of the site.

26. 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:

Analysis of the anthropogenic factors which have affected ecological conditions for the last decade shows that disturbance has had the greatest negative influence on the condition of waterfowl and water birds.

Pollution is a problem. A developing oil and gas complex is now potentially influencing the site, but this is subject to a regulated Environmental Impact Assessment.

The condition of the wetlands and, accordingly, the fauna are affected by the natural processes connected with changes in the level of the Caspian Sea.

Alongside favourable natural processes increasing the area of wetlands over the last 10 years, anthropogenic factors have also strongly increased: pollution by mineral oil, disturbance and illegal hunting of a significant proportion of the wintering and migrating waterfowl and waterbirds.

b) in the surrounding area:

In recent year's, oil and oil products transported from terminals in Turkmenistan has drastically increased. The major terminals for oil transporting are terminals in Ekerem (south), Alaja (the Cheleken Peninsula) and Ufra (the Turkmenbashy Bay). In 2001, transportions via Turkmenistan Caspian ports exceeded 4 million tons; more than 80% of oil and oil products (+4 million tons Atyrau-Heka).

Though no significant oil spills were observed for the time being, this threat demands careful attention.

Technical reinforcement is required. Within the framework of the Caspian Environment Program Grant in 2002-2003, about 200 m of booms and an oil collector were purchased; they were established in the Turkmenbashy Port. The company "Dragon Oil" in Hazar also possesses some remedies for oil spills.

The major sources of municipal pollution is the town of Turkmenbashy and the town of Cheleken. The town's daily municipal waste discharge in the 1990s made about 25-30.000 cubic metres per day, whereas the available network of four pump stations could pump only 12-13.000 cubic metres, which led to discharges into the Turkmenbashy Bay and the Soimonov Bay.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site: In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

72 % (192, 329 ha) of the site is covered by the Hazar State Reserve (which before 1994 was named Krasnovodskiy State Reserve since its foundation in 1968). Ramsar Site area is 267,124 ha (74 795 ha more than Hazar State Reserve).

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?

Within "conservation and sustainable use of globally significant biological diversity in Hazar Nature Reserve on the Caspian Sea Coast" (Hazar project) the management plan for Hazar Reserve was developed and is to be adopted in 2011. The comprehensive field scientific monitoring program, developed under and for the management plan, is launched and successfully being implemented from September 2008.

d) Describe any other current management practices:

The scientific monitoring program which completely serves the management of the reserve is being established and runs with the support of the Hazar Project until the government approval. The technical and human resource capacity improvement program is under implementation by the Reserve and the Hazar Project.

28. Conservation measures proposed but not yet implemented:

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

Within Hazar Project, the management plan for Hazar Reserve was developed. The proposal about the increase of the protected area territory was submitted to the government. The boundaries of the protected area within the site are being studied by a group of specialists in order to propose new

boundaries of Hazar Reserve, establish buffer zones and conduct internal zoning. Under the Hazar Project, the comprehensive program of capacity building for Hazar Reserve management is being prepared and implemented. The technical capacity of the Hazar Reserve, including laboratory, field, office and audio-visual equipment was supplied in 2009.

29. Current scientific research and facilities:

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

- Annual Biodiversity Monitoring (“Letopis prirody”) is implemented by researchers of the scientific department of the Hazar State Reserve; all biodiversity data, collected on annual basis, is recorded in this annual report.
- Caspian Environmental Service “Caspecocontrol” of the Ministry of Nature Protection of Turkmenistan is an independent specialized organization controlling protection and rational management of water, land resources and air of Balkan Province. Tasks of the Service include: State control of observance of the set order of utilizing water reservoirs and waters by enterprises, organizations, institutions, foreign companies, vessels and other floating means, construction on the area of water of the Caspian Sea, as well as citizens, foreign legal and natural persons, based on the environmental legislation of Turkmenistan.
- Experts of the “Conservation of Biodiversity of Global Value in the Hazar Reserve on Caspian Sea Project and Important Bird Areas (IBA) Project jointly carried out autumn-winter assessment of water birds (2007-2008). A Caspian water bird census was carried out in November 2007, February 2008. There has been exchange of data concerning migratory and wintering birds with the Mazandaran Department of Environment (Iran).
- All these activities were included into the newly-developed field monitoring program of the Hazar Reserve which was launched in September 2008. The program will be supported by the comprehensive capacity building program under Hazar Project in 2009-2010.
- In 2007 EU/TACIS regional project on “Caspian Water Quality Monitoring and Action Plan for Areas of Pollution Concern” started in Turkmenistan as well as in all 5 countries of the region in order to support governments to undertake activities on monitoring water quality and develop long-term Action Plans on “hot pots”. Project provides “Caspecocontrol” with technical equipment for laboratories.
- The “Caspian Seal” Project funded by the UK Government’s Darwin Initiative started in Turkmenistan in 2007 as well as in all 5 countries of the region, and is aimed to identify the causes of the Caspian Seal (*Phoca caspica*) decline, and to establish the conservation measures needed to stabilize and restore the seal population.
- The construction of the scientific monitoring base of the Hazar Reserve on the Ufra Peninsula is underway in addition to the existing enforcement and scientific base.
- Other scientific research of the reserve includes the study of populations and impact of new invader species (e.g Ctenophore *Mnemiopsis leidyi*) the monitoring of fish population on the site and its condition, dissertation work on swans is being developed by reserve specialist.
- The short-term internship program for students from Turkmen State University to visit the site and the Hazar Reserve was launched in 2008.
- The technical capacity of the scientific department is being improved with the provision of (2008-2009) audio-visual, laboratory and field equipment. The program of monitoring of biodiversity (mainly birds) will be supported financially and technically until the end of 2010.

- The territory of the Turkmenbashi Bay has more than 75 years long history of the scientific research and monitoring. The Hazar State Reserve is one of the oldest ornithological reserves in Asia. The accumulated knowledge of the reserve is of immense value as the basis for studying the long term impacts of pollution, resource use, climate change and other factors on the Caspian ecosystem.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

- Within the regional "Caspian Seal" Project information booklets, CD materials were prepared and distributed.
- There is the Ornithological Club, based on the "Important Bird Areas" (IBA) Programme and "Caspian" Club in Hazar Reserve which are working with students, children and local communities. Activities of the Club include education and public awareness among schoolboys and schoolgirls, picture competitions for children on "Nature protection". "Our Caspian Sea" subject; ecological and ornithological trainings, field visits, ecological summer camps, etc. "Important Bird Areas in Turkmenistan" annual newsletter is published within IBA programme, supported by OSCE Centre in Ashgabat (Please see annex 1).
- Public awareness includes public events organized on an annual bases and environmental days, where school children, NGO and scientist participate.
- With the support of GEF, the number of publications and other awareness materials were prepared, including 15 minutes documentary about the Ramsar Convention and Turkmenistan (aired on national and satellite television), leaflets on the reserve, protected species etc.
- The Hazar State Reserve has a museum and exhibition which are open to visitors. In 2007 the reserve's museum accepted more than 1,000 visitors. Reserve specialists conducted lectures to 448 attendees and held meetings on environmental topics (340 people). There is the awareness program implemented by reserve specialists which includes 2 monthly visits to schools in Turkmenbashi Town, lectures for kids, as well as the cooperation with 4 schools which has environmental clubs, museums and laboratories.
- The regional Dawrin Project, implemented by FSC, is aimed at biodiversity education among 11-14 year old children in the Caspian Sea. The project is aimed among other activities at the creation of a small bird guide (key) to conduct educational field visits (due 2009).

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

On the north-western border of the site a large scale of the new "Avaza" Tourist Complex, one of the biggest complexes on the Caspian Sea, is under construction.

There is vast potential for tourism activities including ecotourism such as bird watching and tourism. This potential is now being uncovered with the GEF assistance under the Hazar Project. Large stretches of the Caspian coast of Turkmenistan exist in a near natural, relatively unmodified state and the waters are reported to be relatively clean. Urban centres are widely scattered and although the infrastructure required for the import of oil and gas degrades the aesthetic appeal of the area, this is limited to a relatively small area. Turkmenbashi Town and smaller coastal settlements around the site are popular seaside resorts visited by very large numbers of Turkmen holidaymakers in the summer months. The construction of the Avaza Tourism Zone with its 60 hotels and extensive modern tourism facilities close to the site will attract increasing numbers of international visitors.

32. Jurisdiction:

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

72 % of the territory of the site is state property and is under the Ministry of Nature Protection of Turkmenistan and 28 % - is under the local authorities (municipal and regional)

33. 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.

1) Ministry for Nature Protection of Turkmenistan
Turkmenistan, Ashgabat, ul. Kemine, 102
Fax: + 8.312.39.31.84

2) Hazar State Reserve
Nuryev Amanmurad, Director
h. 42 a, Bahry Hazar Str., Turkmenbashi City,
Turkmenistan

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

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Annex 1. List of IBAs of Turkmenistan

No.	International site name	National code
1.	Garshy - Tarta	TM001
2.	Garabogazgol - Garshy	TM002
3.	Garabogazgol	TM003
4.	Ogurjaly ada	TM004
5.	South Cheleken bay	TM005
6.	Turkmenbashy bay	TM006
7.	Turkmen bay	TM007
8.	Garadashly-Ekerem	TM008
9.	Ekerem-Esenguly	TM009
10.	Delili - Garajabatyr	TM010
11.	Garadegish	TM011
12.	Uly Balkan	TM012
13.	Ersarybaba - Akkyr	TM013
14.	Kurendag - Garagoz	TM014
15.	Depmechay	TM015
16.	Tekejik - Biynekyr	TM016
17.	Uzboy	TM017
18.	Koymat - Begarlan	TM018
19.	Chokrak-Tutly	TM019
20.	Sumbar	TM020
21.	Garashor	TM021
22.	Sarygamysh	TM022
23.	Kopetdagkhovudan	TM023
24.	Dushakerekdag	TM024
25.	Goyungyrlan	TM025
26.	Akjagaya	TM026
27.	Kurtusuv - Khovudan	TM027
28.	Gurtly	TM028
29.	Gurykhovudan	TM029
30.	Deryatakyr	TM030
31.	Mergen	TM031
32.	Ayrakly-Garajaovlak	TM032
33.	Muskinata	TM033
34.	Tejen	TM034
35.	Jarsay - Khangui	TM035
36.	Khankhovuz	TM036
37.	Soltansanjar-Duyeboyun	TM037
38.	Badhyz	TM038
39.	Gorelde	TM039
40.	Erajy	TM040
41.	Garachop	TM041
42.	Saryyazy	TM042
43.	Nargiz	TM043
44.	Kattashor-Romankul	TM044
45.	Repetek	TM045
46.	Garabil	TM046
47.	Soltandag - Gyzylburun	TM047
48.	Zeyit-Kelif	TM048
49.	Tallymerjen	TM049
50.	Koytendag	TM050