

## Location



## Introduction

Turkmenistan, located in Central Asia, is bordered on the west by the Caspian Sea, on the north by Kazakhstan, on the north and northwest by Uzbekistan, on the southwest and south by Afghanistan and on the south by Iran. The country's government is an authoritarian presidential republic consisting of five provinces and one independent city.

The climate of Turkmenistan is dominated by cold winters and very hot, dry summers. The country's approximately 1,786 km of coastline is found along the Caspian Sea, the world's largest inland waterbody. Due to its low salinity and long isolation from other world seas and oceans, the Caspian Sea has evolved into a unique marine ecosystem.

Uzbekistan and Turkmenistan have some water-sharing issues in the Amu Darya *river* states and there is ongoing work to establish boundaries with Kazakhstan. Recent agreements may resolve long-standing issues regarding the division of the Caspian seabed between Member States.

## Regional Seas and Biogeography

Caspian Sea

### Habitats

Due to its isolation from other marine waterbodies, and large freshwater inputs from the Ural and Volga Rivers, the Caspian Sea has low salinity levels and a unique marine ecology. The *Kara-Bogaz Gol*, a large, shallow lagoon in northwestern Turkmenistan, is one of the saltiest bodies in the world with limited water flowing in from an inlet to the Caspian Sea. The Gol is well below sea level with salt beds with minimal vegetation along the shoreline.

-> **Sand dunes:** Common feature of the Turkmenistan Caspian coast.

-> **Salt domes, pans and clay desert:** the Caspian Sea coast also has many salt pans and domes, which increase as the sea recedes. Clay desert, created as areas of clay shoreline dry, consists of a dried crust with fissures in the surface.

-> **Seagrasses:** Scattered along the Turkmenistan Caspian coast around *Esenguly* and along *Turkmen Bay*.

## Biodiversity Hotspots

In this section, acronyms and abbreviations are used for some of the most common types of hotspots: State Nature Reserve (SNR), Ramsar Wetland of International Importance (Ramsar), Important Bird Area (IBA), IMMA (Important Marine Mammal Area)

### -> State Nature Reserves/Ramsar sites

The National System of Specially Protected Natural Areas, under the Environmental Protection Service of the Ministry of Agriculture and Environmental Protection aims to improve, protect and establish rational use of land and water resources, coastal zones and wetlands.

The *Hazar* SNR is the biggest protected area of Turkmenistan in the southeastern part of the Caspian Sea, covering almost the entire *Turkmenbashi Bay* part of which is designated as a Ramsar site (also an IBA). The *Turkmenbashi Bay* site is comprised of several shallow, brackish bays spits, islands and sand dunes in the southeastern Caspian. This area is an important stopover and wintering site on both the Central Asia and East Asia-East Africa Flyways. Between 5 and 8 million waterbirds pass along the east coast of the Caspian Sea, of which at least 130 species are water and shorebirds. Up to 0.8 million winter in the bay, the largest wintering site for birds that nest in Western Siberia, Kazakhstan and other parts of Northern Asia. The site hosts numerous endangered birds and the critically endangered Sociable lapwing, as well as the endangered Caspian seal.

The entire *Hazar* SNR was proposed as a Ramsar site and UNESCO World Heritage Site to expand the already protected area to include the *Balkhan*, *North Cheleken* and *Mikailov Bays*, several of which are much deeper than *Turkmenbashi*, thus providing more variety of habitat.

#### -> IBAs

The areas listed below are organised from North to South:

*Garabogaz- Garshy-Tarta* are two successive IBA areas forming a narrow coastal strip between *Kara-Bogaz-Gol* and *Turkmen Bay*. This stretch of coastline is composed of small coves and bays alternating with underwater and surface stony ridges but also sand dunes and water features. It supports at least 280 avian species, of which at least 240 are migratory/wintering birds, including 96 species of passerine and 120 are waterbirds, particularly during spring migration from mid-March to late April. Autumn migration, from the end of August to mid-November has lower numbers at any one time as different taxa pass through at different times.

*Turkmen Bay* is located just south of *Turkmenbashi Bay* and includes both sand dunes, saltmarsh and seagrass areas. The site supports at least 288 avian species, 240 being migratory or wintering species. Although passerines are most numerous, there are significant populations of waterbirds on migration, which occurs from mid-March to the end of April in spring and extends from August to mid-November in autumn.

*Orugialy Island* located on the northwestern coast forms a border between *Turkmenbashi Bay* and the Caspian Sea. It supports more than 20,000 pairs of nesting gulls, as well as a significant number of shorebirds, and other waterbirds. Raptors and songbirds may be found here on migration.

*Garadashly-Ekerem-Esenguly* constitutes two successive IBA areas characterised by a low lying stretch of coast with sand dunes alternating with areas of saltmarsh hosting a similar population of avian species to that of *Garshy-Tarta*, with at least 280 species, of which shorebirds, ducks and terns are most numerous.

#### -> IMMAs

*Caspian Seal Moulting and Haul Out Areas* are located in different parts of the Caspian sea (Turkmenistan and Kazakhshtan) and constitute important coastal areas used by Caspian seals for moulting in the spring and haul-out during the summer and autumn migrations. In Turkmenistan, these areas are located along the narrow stretch of coastline outside the *Kara-Bogaz Gol lagoon*, in *Turkmenbashi Bay* as well as between *Turkmen Bay* and *Orugialy Island*.

The *Caspian Seal Transitory Migration and Feeding Area* IMMA encompasses the primary feeding areas and migration corridors of the Caspian seals. It connects areas used for haul-out and moulting and the winter breeding area, serving as a corridor all year round but especially during spring, summer and autumn when the Caspian seal travels most widely to forage. This area stretches along the entire coastline of Turkmenistan comprising both shallow near shore waters as well as areas deeper than 400m offshore.

## At risk Wildlife

In this section, some individual wildlife species are mentioned followed by a letter in parentheses. These are species included in the IUCN Red List of Threatened Species within the top three categories of risk - Vulnerable to extinction (VU), Endangered (EN) or Critically Endangered (CR). A more complete list of IUCN listed species is found in Appendix 1.

### ➔ At risk birds

Turkmenistan sits on the Central Asia and East Asia-East Africa Flyways and hosts hundreds of thousands of waterbirds, during the spring (March and April) and autumn (August to mid-November) migrations and up to 800,000 wintering birds, particularly geese, swans and ducks.

### ➔ At risk reptiles

There are several species of sea snake in the Caspian Sea and a few freshwater snakes which are found along the coast.

### ➔ At risk mammals

The Caspian seal(EN) is the only marine mammal found in Turkmenistan's waters; however, Eurasian otters may forage along the coast, particularly in estuarine areas.

## Past experience with oil spill and potential risks

There have been no records of significant spills in the southern Caspian Sea, however there is increasing oil and

gas development, and shipping, throughout the Caspian Sea, including undersea pipelines, in the area.

In addition to their tanker fleet and oil terminals, there are a number of oil and gas fields, some offshore and coastal, the country also has two refineries along the coast. Satellite imagery confirmed chronic oiling in the areas around Turkmenbashi during the years 2000-2012, likely associated with underwater oil pipelines. The report, however, does not completely rule out natural seeps as a contributing factor. The Turkmenistan-Afghan-Pakistan-India (TAPI) pipeline is expected to be completed in 2022 and there are ongoing talks on the development of the Trans-Caspian Pipeline (TCP).

## **International and Regional Treaties and Agreements**

### **→ Oil spill and HNS Response**

- CLC Convention 69
- CLC Protocol 76
- CLC Protocol 92
- FUND Protocol 76
- FUND Protocol 92
- FUND Protocol 2003
- LLMC Convention 76
- LLMC Protocol 96
- OPRC Convention 90
- HNS Convention 96
- HNS PROT 2010
- OPRC\_HNS 2000
- BUNKERS CONVENTION 01

### **→ Marine Biodiversity Protection**

- Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran Convention)
- Protocol Concerning Regional Preparedness, Response and Co-operation in Combating Oil Pollution Incidents (Aktau Protocol) under the Tehran Convention
- Protocol for the Conservation of Biological Diversity (Ashgabat Protocol) under the Tehran Convention
- Protocol on Environmental Impact Assessment in a Transboundary Context under the Tehran Convention
- Oil Spill Preparedness Regional Initiative for the Caspian-Black Sea-Central Asia (OSPRI)
- Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)

## **Oil Spill Response and HNS Spill Response**

### **→ National Contingency Plan?**

A National Oil Spill Contingency Plan (NCP) was approved by the country's president in 2001. In 2015, the International Maritime Organisation (IMO) held a workshop to complete and implement the update of the plan. Progress since then is not clear.

### **→ Role of Competent National Authorities**

There is limited information on how Turkmenistan would manage response to an oil spill as both the Ministry of Oil and Gas and the State Agency for Managing Hydrocarbon Resources no longer exist following a major government reorganisation, leaving only an Advisor to the President of Turkmenistan on Oil and Gas Issues as of 2021. Officials from the Turkmen National Oil and Gas Company (NaPeCo), Turkmengas and Turkmennebit might be involved and the Turkmenistan Coast Guard and Navy may play a role, as may the newly created Ministry of Agriculture and Environmental Protection (MAEP) and State Committee for Water Management. Under the NCP, Tier 1 spills are handled by individual oil companies, Tier 2 calls for assistance from additional companies and possibly multinational organisations and Tier 3 would require state and international assistance.

## **Oiled Wildlife Preparedness and Response**

### **→ Formal guidelines?**

There does not appear to be any oiled wildlife response plan or formal guidelines in the NCP. The Caspian Biodiversity Strategy and Action Plan (CBSAP) provided a framework for addressing issues affecting biodiversity

of marine and coastal habitats and species of the Caspian Sea region, however it is not clear whether the CBSAP continues to be active.

➔ **Response objectives and strategy**

Turkmenistan does not appear to have developed response objectives or strategies for oiled wildlife, and many of the activities from the late 1990s and early 2000s which were focused on improving environmental emergency response do not appear to be ongoing.

➔ **Euthanasia or rehabilitation?**

n.a.

➔ **Impact assessment**

The Department of Environmental Protection and Hydrometeorology of the MAEP might be involved during an impact assessment, as it has a role in marine scientific research.

The Central Veterinary Laboratory, under the MAEP, while largely focused on livestock and food production, may be able to provide assistance with post-mortem examinations and laboratory tests.

➔ **Notification and early response**

It is not clear what agency would oversee notification and early response. The MAEP may be the primary notification and response agency for wildlife related issues.

➔ **Wildlife responders**

The MAEP would likely oversee the activities of any wildlife responders. There do not appear to be any wildlife rescue and rehabilitation NGOs in the country and activities of many of the conservation and research NGOs have been limited by resources and government regulation.

➔ **Cooperation between stakeholders**

Turkmenistan continues to be active in the Tehran Convention cooperation on Caspian Sea environmental issues.

➔ **Permanent facilities**

There do not appear to be any permanent facilities for rehabilitation of oiled wildlife.

➔ **Current processes**

In 2018, Caspian Day was held, including scientific programmes on the Achievements in the field of marine protection of the Caspian Sea, attended by all Caspian Sea States.

The oil industry supports the Oil Spill Preparedness Regional Initiative (OSPRI) which includes the Caspian and Black Seas and Central Eurasia. This initiative encourages and supports Member States and industry to work cooperatively in order to promote oil spill preparedness through the finalisation and implementation of a regional response plan under IMO's guidance. Some activities have had to be curtailed in 2020 and going forward, due to the COVID-19 pandemic.

In 2021 the annual Scientific and Practical Conference "Cooperation in the field of protection of the marine Environment of the Caspian Sea" was held in Turkmenistan, the XXVI International Conference "Oil and Gas of Turkmenistan" brought together industry and government officials.

The same year, the first high-level Implementation Meeting under the Aktau Protocol was organised to finalise the Caspian Sea Plan Concerning Regional Cooperation in Combating Oil Pollution Incidents and develop robust long-term planning and partnerships between the Caspian States.

## Documentation and references

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- State Veterinary Service: [https://rr-europe.oie.int/wp-content/uploads/2021/06/11\\_turkmenistan\\_a-ind\\_en.pdf](https://rr-europe.oie.int/wp-content/uploads/2021/06/11_turkmenistan_a-ind_en.pdf)

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## **Appendix 1**

### **→ At risk birds**

**Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)**

Sociable lapwing / *Chettusia gregaria* / CR / Migratory (August to April) / Non-breeding  
White-headed duck / *Oxyura leucocephala* / EN / Migratory (March to August) / Breeding (April to July)  
Pallas's fish eagle / *Haliaeetus leucoryphus* / EN / Migratory (October to January) / Non-breeding  
Lesser white-fronted goose / *Anser erythropus* / VU / Migratory (August to October/February to June) / Non-breeding  
Long-tailed duck / *Clangula hyemalis* / VU / Migratory (October to April) / Non-breeding  
Velvet scoter / *Melanitta fusca* / VU / Migratory (seasonality uncertain) / Non-breeding  
Marbled teal / *Marmaronetta angustirostris* / VU / Partially migratory (seasonality uncertain) / Likely non-breeding  
Common pochard / *Aythya ferina* / VU / Partially migratory (during winter) / Breeding (March to May)  
Horned grebe / *Podiceps auratus* / VU / Migratory (winter) / Non-breeding

### **→ At risk reptiles**

**Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)**

### **→ At risk mammals**

**Common name / Latin name / IUCN Red List Category (CR,EN,VU) / Resident-Migratory (season) / Breeding-Nesting-Pupping (season)**



# TURKMENISTAN

*Country Wildlife Response Profiles*  
*A Summary of oiled wildlife response*  
*arrangements and resources worldwide*

Caspian seal / *Pusa capsica* / EN / Resident (may migrates in and out throughout the year) / Breeding (December to April) (low numbers on offshore islets of the country)