



# CASPIAN SEA STATE OF THE ENVIRONMENT

2011



UNEP and UNDP  
promotes environmentally  
sound practices globally and in their  
own activities. This publication is printed on  
ecological paper. Our distribution policies aim to  
reduce our carbon footprint.

# Caspian Sea

## State of the Environment

2010

Report by the interim Secretariat of the  
Framework Convention for the Protection of  
the Marine Environment of the Caspian Sea  
and the Project Coordination Management  
Unit of the “CaspEco” project



## Contents

---

Foreword.....	8
1. Introduction and objective .....	9
2. Methodology.....	11
3. Socio-economic challenges and opportunities.....	13
4. Pressure.....	19
4.1. Decline in bioresources.....	19
4.2. Non living resource extraction .....	25
4.3. External inputs: run offs.....	28
4.4. Air emissions.....	32
4.5. Waste .....	34
5. State: Changes in environmental quality (natural capital) .....	42
5.1. State of marine water quality and incoming fresh water .....	42
5.2. State of air quality .....	48
5.3. State of sediment quality.....	49
5.4. State of biodiversity.....	54
5.5. Climate change .....	65
6. Impact.....	73
6.1. Consequences on social and economic sector.....	73
6.2. Consequences on environmental services and bioresources .....	77
7. Response .....	80
7.1. Regional and national governance .....	80
7.2. Policy and legislation .....	86
7.3 Monitoring and compliance .....	91
7.4. Participation and outreach (private sector, and information sharing) .....	94
Acronyms and abbreviations.....	98
References .....	100

## Foreword

The Caspian Sea, abundant with natural living and fossil resources, its coastal areas home to more than 15 million people, faces a series of environmental challenges.

Well organized, updated and accessible information is essential for properly founded decision-making to tackle these challenges. Knowledge of the environmental conditions of the Caspian Sea, as well as of the causes and effects of changes in these conditions is an indispensable prerequisite for common policy development and action to keep the Sea clean and preserve its rich natural resource base for present and future generations. State of the environment reporting is a recognized way of capturing environmental information and making it accessible to policy makers and the public at large.

The Second Conference of the Parties of the Tehran Convention tasked the Interim Secretariat of the Convention to develop the State of the Caspian Sea Environment Report and present it at the Third Conference of the Parties. The Report falls under CASPECO Project Component II “Strengthened Regional Environmental Governance”, Outcome 4 “Enhanced Stakeholders’ Engagement in the Tehran Convention process and Improved Public Access to Information on the Status of the Caspian Sea Environment”.

The basic purpose of the State of the Environment Reporting Framework is to allow for regular reporting on an agreed set of regional indicators that show changes and trends in environmental conditions. It provides necessary information for developing, monitoring programs and policies implemented at local, national and regional levels. Furthermore, it increases the number of stakeholders involved in order to benefit from their significant feedback and valuable contributions.

Governments of the Caspian riparian states have not yet fully decided on the range of information they need for collective decision-making in ar-

reas of common concern. The Tehran Convention and its ancillary protocols have in broad terms identified what issues need to be addressed, but implementation plans for the protocols have not yet been prepared and a monitoring format underpinning future reporting has not yet been developed. Sets of indicators for measuring change and progress in managing such change need to be further developed and agreed upon. An inventory of the capacity available in the countries is underway to help determining how the requirements for monitoring and reporting can be met and what type of support is needed. And a common data base and information centre must be established to receive, store and disseminate the data and information collected.

State of the Caspian Sea environment reporting, therefore, for some time to come will remain “work in progress”. Governments need to invest in broadening their national base of information collection and analysis to underpin and service collective decision-making for the implementation of the Tehran Convention and its Protocols. They should stand ready and prepared to refine and where needed adapt the methodologies they use to that end. And they should start a practice of sharing the information they collect and hold on changes in the state and health of the marine environment of the Caspian Sea, eventually perhaps guided by the provisions of a commonly agreed protocol.

This State of the Caspian Sea Environment Report should be seen and considered as a first try out and starting point towards the creation of a shared environmental information system promoting and securing data collection, monitoring, analysis, harmonization and public communication in support of full implementation of the Tehran Convention and its protocols. We hope that it will improve the Caspian information base, enhance the quality, accessibility and relevance of data and ultimately, contribute to strengthening the regional environmental governance framework.

## Introduction and objective

The Caspian Sea, surrounded by the five coastal countries the Republic of Azerbaijan (Azerbaijan), the Islamic Republic of Iran (Iran), Republic of Kazakhstan (Kazakhstan), the Russian Federation and Turkmenistan, is the largest land-locked water body on Earth. The isolation of the Caspian Basin together with its climatic and salinity gradients has created a unique ecological system with some 400 species endemic to the Caspian waters. Today, many Caspian species are threatened by over-exploitation, habitat destruction, pollution and climate change. It reflects negatively on human well-being, social and economic sectors, and environmental services.

By 2006, all Caspian littoral states ratified the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (the Tehran Convention), which was the most significant outcome of the Caspian Environment Programme that was started in 1995. Being the first regional and legally binding instrument signed by all five Caspian littoral states, the Tehran Convention serves as an overarching framework laying down the general requirements and the institutional mechanism for the protection of the marine environment of the Caspian Sea. Concrete commitments are determined and dealt with in protocols to the Convention. Negotiations on four protocols have been concluded. They focus on biodiversity conservation; land-based sources of pollution; preparedness, response and cooperation in combating oil pollution incidents; and environmental impact assessment in a transboundary context. Two of the protocols are expected to be ready for adoption and signing at the third Meeting of the Conference of Parties (COP3) in November 2011.

At the second Meeting of the Parties to the Convention (COP2), held in Tehran, Islamic Republic of Iran, 10-12 November 2008, the Parties requested the preparation of the first State of the Environment (SoE) of the Caspian Sea Re-

port for distribution at COP3. Pursuant to that and other related requests by COP2, the interim Secretariat of the Convention organized a meeting of the Contracting Parties on a Shared Environmental Information and Monitoring System for the Caspian Sea, in Ashgabat, Turkmenistan, 9-10 September 2009.

The meeting requested the interim Secretariat to prepare the State of the Environment Report of the Caspian Sea, based, inter alia, on reports and documentation developed under the Caspian Environment Programme and the Tehran Convention. In the preparation of the report, due account should furthermore be taken of other relevant scientific national and regional reports and publications and the development of a reporting format for the implementation of the Tehran Convention and its Protocols. In order to increase the understanding and enhance the information on the state and trends of the marine environment of the Caspian Sea, there is a clear need to get a better insight about emerging environmental concerns.

The SoE of the Caspian Sea Report is based on existing documents developed in the context of the Caspian Environment Programme, which is supported by the Global Environment Facility, and through other major projects, including the first and the second editions of the Transboundary Diagnostic Analyses (TDA), the Regional Water Quality Monitoring and Pollution Plans developed with the support of the EU, the Rapid Assessment of Pollution Sources (RAPS), and the Strategic (Tehran) Convention Action Programme. The report summarizes the findings of the different assessments and includes existing updated figures. It is based on the latest information on policy and legislative measures, institutional setup, stakeholder engagement, future challenges and barriers to the improvement of the state of the environment in the region, provided by the governments through a questionnaire.

The report is an effort to highlight the main trends in the marine and coastal environment of the Caspian Sea. It provides a gap analysis, showing the needs and requirements of the countries, individually and collectively, in the areas of monitoring, information collection and management related to policy, decision-making and implementation of the Tehran Convention and its Protocols.

This report is based on materials and documents of the CEP, and does not reflect the official

position of governments of the Caspian states. It should not be regarded as a comprehensive analysis taking into account the consensus of all stakeholders and developed with their participation, but rather as a blueprint to help pave the way ahead, indicating what is needed to establish a monitoring network and programme capable of systematically measuring the state of the environment of the Caspian Sea, in light of the requirements of the Convention and its Protocols.

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_9865](https://www.yunbaogao.cn/report/index/report?reportId=5_9865)

