

# CASPIAN SEAL CONSERVATION ACTION PLAN



## Caspian Environment Programme

10 April, 2007



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## INTRODUCTION

### Background

The seal is the only marine mammal in the Caspian Sea, feeding on tulkas and other small fish, and preyed upon by land animals. It is an endemic species for the Caspian Sea and is vulnerable on that point of view. During its life history the Caspian seal migrates from the frozen North Caspian waters in the winter to the South Caspian in the summer timer and back to the North to give birth to the pups on the ice. During these migration time the seals can be found everywhere in the sea.

It is unclear how many seals remain in the Caspian Sea today. The seal population have been estimated at more than 1 million in the early 20<sup>th</sup> century, at the present time the population estimates vary from about 110,000 to 350,000. For much of the 19<sup>th</sup> and 20<sup>th</sup> century, hunting was carried out including hunting on the seal pups in the frozen North Caspian Sea. In the early 20<sup>th</sup> century, nearly 100,000 seals were hunted each year by the hunt; later a quota was set at 40,000 seals per year. Then later 20,000 seals, and now it is as low as few thousands. Even these quotas are not fulfilled now on a full scale. For the past decade, no organized hunting has taken place in the North Caspian, not for the lack of a quota, but rather for lack in the market for the seal products.

The IUCN Red List of Threatened Animals has listed the Caspian seal as vulnerable mammal; the seal has been the victim of recent mass mortalities that have reduced the population even further. In 2000, a mass mortality caused some tens of thousands of deaths throughout the Caspian (Azerbaijan, Kazakhstan, Russia, and Turkmenistan). Scientists have long known that the Caspian Sea has accumulated parasitic infection, heavy metals, and organic pesticides (especially DDT and its by-products), but the 2000 mortality was particularly notable for the role played by canine distemper virus (CDV). Nearly all the seals examined in 2000 were test-positive for this morbilivirus. Earlier studies have shown that pollution may cause the females to become barren (According to findings of Russian scientists up to 40%-70% of females are thought to be barren). Ratio of barren females changes in years and is still rather high.

Besides pollution and hunting, other stressors act on the Caspian seal population. A major food source for the seals is the tulka, one of the small and abundant fish of the Caspian. For the past few decades the tulka stocks have reduced dramatically due to several reasons: mass mortality in 2001, expanded fishing in the 1995-1999, and invasion of the ctenophore *Mnemiopsis leydyi*,

Disturbance on the ice during pupping season and the separation of the pups from its mothers have become another threat to the seals population, which has been recognized in the last few years.

Active conservation efforts will be required to assure the Caspian seal does not eliminate from the Earth. As a major mammal, anchoring one end of the food web, it also plays an important role in the biodiversity of the Caspian Sea and is a remarkable indicator of the Caspian ecosystems health.

## **Geographic scope**

The immediate geographic scope of the CSACP is the entire Caspian Sea and low reaches of any rivers flowing into the Caspian Sea, wherever seals could be found.

## **Purpose and status**

Caspian Seal Conservation Action Plan describes main activities needed for the seal conservation. All Caspian countries are invited to adopt the CSCAP on a voluntary basis. CSCAP is addressed to the unsustainable use of bioresources and threats to biodiversity, which are prioritized as major environmental concerns in the Strategic Action Plan for the Caspian Sea. It is in correspondence with EQO II "Conservation of Biodiversity" particularly with Target 1 "Increased regional collaboration to achieve maximum regional benefits for biodiversity" and Target 2 "Ensure all key species are maintained or restored to viable levels". In the Updated SAP seal conservation became a separate Target 4 among other targets of EQO 1 "Conservation and sustainable use of bioresources".

## **Chronology:**

- 1997 – First International Investigation of Seal's Mortality in the Caspian Sea;
- 1999-2002 – ECOTOX project under CEP umbrella made investigation of seals mass mortality in 2000 and accumulation of toxic substances in the seals;
- 2005 – First International Aerial winter seal survey (Kazakhstan part of the Northern Caspian);
- 2005 – First draft of SCAMP developed by Caspian International Seal Survey (CISS);
- 2005 – Presentation of the First draft of SCAMP on the 2<sup>nd</sup> BISRAG meeting in Almaty, 25-26<sup>th</sup> April, 2005;
- 2006 – Presentation of the first draft of SCAMP on the Steering Committee in Almaty, 14-15 February, 2006;
- 2006 – Second International Aerial winter seal survey (February, 2006);
- 2006 – Second draft of SCAMP developed by CISS;
- 2006 – Technical expert work-shop on discussion of the second draft under Darwin Initiative project "Quantification and elimination threats to Caspian Seal", Baku 15-16 September, 2006;
- 2006 – Presentation of the Second Draft of the SCAMP on the 4<sup>th</sup> BISRAG meeting in Baku, 23-24 September, 2006;
- 2006 – Third Draft of CSCAP is developed and presented on the Steering Committee in Moscow 5-6 December, 2006 by BISRAG Interim Secretariat
- 2007 – The final version of the CSCAP is approved by the current Chairperson of the Steering Committee on behalf of CEP as a guidance document for voluntary adherence of the countries on April 10, 2007.

**Implementation:**

Caspian Seal Conservation Plan is elaborated as an independent guideline document. It is in correspondence with National Caspian Action Plans and Strategic Plan for the Caspian Sea. It could be incorporated (in whole or in parts) in NCAPs and/or SAP after approval by the National Governments or other appropriate Nationals or International Organizations.

**Time period**

All activities in the Caspian Seal Conservation Plan are for five years implementation starting from 2007. After five years the CSCAP need to be revisited and to be prolonged if appropriate.

**Structure**

All activities are divided in six groups and presented in a table

## CASPIAN SEAL CONSERVATION ACTION PLAN

**Agreement area: Caspian Sea**

Explanatory note: The measures of the Caspian Seal Conservation Action Plan (CSCAP) are outlined according to the following scheme.

Objectives	Outputs	Activities
<p><b>1. Institutional arrangements</b>            1.1 Establishing of an appropriate body for coordination of all measures to conserve seals in the region.</p>	<ul style="list-style-type: none"> <li>• Establish Regional Seal Centre (RSC), which will lead and coordinate monitoring and research works on the seal population in the region .</li> </ul>	<ul style="list-style-type: none"> <li>• Elaborate and agree in countries Provision on Regional Seal Centre (RSC), its status, relationship with other Regional and National bodies;</li> <li>• Regional Seal Centre (RSC) shall be established with a representative from each of the Caspian littoral States working with the approval of each State Government;</li> <li>• Elaborate principles and protocols on information exchange between RSC and other Organizations and Institutions;</li> <li>• Special scientific consultative group shall be establish within RSC with representatives from each Caspian countries and international consultants to determine and develop the necessary conservation measures and programme for research and monitoring.</li> </ul>
<p><b>2. Conservation of seals and it habitats</b>            2.1. To take appropriate measures for the protection of key habitats and for ensuring the preservation of areas which are essential to the maintenance of the vital biological functions of seals (breeding, feeding, and rest).</p>	<p>To identify and/or create special protected areas for seals conservation and to take appropriate measures, i.e.</p> <ul style="list-style-type: none"> <li>• to ensure that the protected areas cover the main birth, nursery, resting and foraging areas of seals and ensure that the protected areas cover a sufficient proportion of seals in all seasons in all parts of the Caspian;</li> <li>• to ensure that designations of seal protected areas are based on well-defined criteria of critical habitats, according with international standards.</li> </ul>	<ul style="list-style-type: none"> <li>• Define habitat and diet requirements for the different age groups;</li> <li>• Take appropriate measures to survey and identify seal breeding, foraging and resting sites in all seasons in all areas for different age groups within the jurisdiction of each Caspian State;</li> <li>• Take appropriate measures to identify areas within which the highest densities of breeding seals are most likely to occur on ice;</li> <li>• Develop measures to define new protected areas and define restricted activities within it. Define any remedial measures required to restore seal habitat (haul-out sites).</li> </ul>

Objectives	Outputs	Activities
<p>2.2. Preservation habitats and seals, within and outside protected areas, from undue disturbance or changes resulting, directly or indirectly, from human activities.</p>	<ul style="list-style-type: none"> <li>• To ensure that the seal reserves are created in such a way that human impact on disturbance to the seal population is limited to a minimum.</li>   <li>• To reduce disturbance by ice-breakers and other shipping.</li>   <li>• To reduce the number of seals caught as by-catch and ensure that seals are not deliberately killed by fishermen.</li> </ul>	<ul style="list-style-type: none"> <li>• Create protected areas (may be seasonal - winter) within the ice-field where highest breeding seal densities most likely to occur. Elaborate specific definition of seasonal protected area allowing seal conservation following seals movements on the ice according to annual variations in ice condition;</li> <li>• Create if necessary new protected areas at seal haul-out islands and surrounding water.</li> <li>• Prepare proposals to make changes in Shipping Regulations and other industrial activity to circumvent ship ways as far as possible from seal breeding areas.</li> <li>• Release seals trapped in 'pareh' nets (type of beach seining) unharmed;</li> <li>• Prevent deliberate killing of seals encountered during fishing operations such as tulka fishing and using of gill-nets;</li> <li>• In coordination with other designated organizations strength measures to prevent illegal setting of fishing nets which may entrap and drown seals;</li> <li>• Research ways of reducing seal by-catch in legally-set fishing nets.</li> </ul>
<p>2.3. Identification areas of degraded seals habitat and explore possibilities for restoring such habitat (haul-out sites) or creating new habitat to compensate.</p>	<ul style="list-style-type: none"> <li>• To identify haul-out areas for resting and breeding which were formerly used, but which are now not used, or used less than formerly.</li>   <li>• To identify seal foraging areas and determine extent of obstacles created by fishing nets, industrial installations, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Chart, from historical records, sites used formerly and at present for seal haul-out, and indicate the causes for the current disuse; suggest remedial measures;</li> <li>• Investigate possibilities of new seal halt-out creation.</li> <li>• Identify seal foraging areas by telemetry studies;</li> <li>• Chart fishing nets, boats, industrial installations activity etc in those areas and it possible negative impact on the seals;</li> </ul>

Objectives	Outputs	Activities
	<ul style="list-style-type: none"> <li>To identify areas where <i>Mnemiopsis leidyi</i> could damage fish stocks important for seal feeding.</li> </ul>	<ul style="list-style-type: none"> <li>Monitor seal diet seasonally, by means of analysing contents of seal scats collected from selected haul-out sites to investigate overlapping of seal feeding ration and fishing activities.</li> <li>Coordinate with Mnemiopsis and other regional monitoring programmes to identify areas and stocks of possible seals prey species, their conditions, trends, and main factors of their decline and overlapping of these areas with seals feeding ground.</li> </ul>
<p><b>3. <u>Research and Monitoring</u></b>  3.1. Coordination of research programmes and projects. Increasing knowledge of the seals biology and ecology including harmful effects of human activities on the seal population. Create a scientific basis for measures to improve seal condition and conservation status.</p>	<ul style="list-style-type: none"> <li>To establish an overview of recent and ongoing research projects on seals to ensure information exchange.</li> <li>To carry out a full annual survey on the entire winter ice-field for pups and adult seals according to international standards taking into account specific of North Caspian Sea.</li> <li>To carry out a counts at seal haul-out sites in non-iced areas of the Caspian, simultaneously with the annual February survey and at other seasons.</li> </ul>	<ul style="list-style-type: none"> <li>RSC should compile an inventory of recent, ongoing and planned research projects on seals in the entire Caspian Sea;</li> <li>Respond appropriately to new findings on existing threats, or identification of new threats as determined by the research and monitoring programmes;</li> <li>All materials used for making any decisions on seal management and conservation should be presented to the public.</li> <li>Facilitate the annual aerial survey of the breeding seal population on the winter ice field;</li> <li>Train young scientists in practical and theoretical methodology of seals counting according to the best international scientific and ethical standards;</li> <li>RSC to establish and maintain electronic data base for all aerial survey results;</li> <li>RSC to prepare annual report on population winter counting according to international standards.</li> <li>Facilitate and carry out seal counts at all haul-out sites to the possible extent in non-iced areas of the Caspian, simultaneously with the annual winter survey and at other seasons;</li> </ul>

Objectives	Outputs	Activities
	<ul style="list-style-type: none"> <li>• To carry out a periodic health survey of the breeding seal population on the winter ice-field using non-lethal methods, according to the best international experience and animal welfare.</li> <li>• To describe, investigate and analyse all causes of mortality.</li> <li>• To carry out a study of seal diet, using non-lethal methods.</li> </ul>	<ul style="list-style-type: none"> <li>• RSC to identify and chart all non-iced haul-out sites in the Caspian Sea;</li> <li>• RSC to establish and maintain electronic data base for non-iced seals haul-outs;</li> <li>• RSC to prepare annual report of seal numbers at each haul-out site (to the possible extent); data to be integrated with results of annual winter survey, where appropriate.</li> <li>• Facilitate a periodical health survey of the breeding seal population on the winter ice-field using non-lethal methods;</li> <li>• Train young scientists in practical and theoretical methodology of seal health survey according to international scientific and ethical standards;</li> <li>• RSC to establish and maintain electronic data base for all health survey results;</li> <li>• RSC to prepare Report of health survey according to international standards;</li> <li>• Arrange for samples to be appropriately collected, stored and sent to laboratories for analysis;</li> <li>• To identify laboratories where samples may be analysed to international standards.</li> <li>• Basic measurements and description of all seals found dead will be taken;</li> <li>• Seals found freshly dead will be necropsied and samples taken for analysis of health status;</li> <li>• RSC to establish and maintain electronic data base for all dead seals;</li> <li>• The long-standing programmes of seal mortality and dead seals monitoring along the Caspian coast shall be continued.</li> <li>• Develop an otolith guide for Caspian fish;</li> <li>• Develop a project for investigating seal diet by (a) analysing faecal samples collected from haul-out</li> </ul>

Objectives	Outputs	Activities
<p>3.2 Research of pollution impact to seals and develop measures to reduce such impact</p> <p>3.3 Methodology research</p>	<ul style="list-style-type: none"> <li>• To investigate Caspian seal annual migrations, foraging movements and migration patterns using not wounded telemetry systems.</li> <li>• To investigate Caspian seal intraspecies diversity.</li> <li>• Scientific research of seals as one of indicator species of the condition of the marine environment.</li> <li>• Coordinate with other ecological monitoring programmes in the region dealing with pollutants.</li> <li>• Compare different methods of seal count and elaborate uniform method for the Caspian Sea, according to international standards</li> <li>• Develop modern non-lethal methods of seal's investigation for the Caspian sea</li> <li>• Revisit status of Caspian seal population in international documents.</li> </ul>	<ul style="list-style-type: none"> <li>• sites and (b) analyse food remains from seals found dead due to by-catch and other causes.</li> <li>• Develop a tagging and tracking programme for Caspian seals using modern not wounded telemetry system;</li> <li>• RSC to establish and maintain electronic data base storing all tagging and telemetry data.</li> <li>• Develop a project on genetic diversity and population validity of seal bred on Isle Ogurchinskiy using modern methods of biochemical and genetic analyses.</li> <li>• Collect samples of blubber and other tissues for analysis together with measurements of body length, blubber thickness and age from seals found dead from natural causes or in by-catch;</li> <li>• Initiate research on mechanisms of pollution impact to the seals in Caspian Sea.</li> <li>• Submit data on accumulation of pollutants in seals to other ecological programmes.;</li> <li>• Elaborated protocols of data exchange with other ecological programmes in the Caspian region.</li> <li>• RSC in consultation with national and international experts in seals' biology make a wide discussion on possible methods of seal count and elaborate uniform method for future research according to international standards. If necessary make comparative counting using different methods.</li> <li>• RSC to develop a programme for young scientists training in modern, non-lethal methods of seal's investigation according to international standards.</li> <li>• Search feasibility of including Caspian seal in the CITES list;</li> <li>• Search feasibility of changing status of Caspian seal in the IUCN list.</li> </ul>

Objectives	Outputs	Activities
<p><b>4. Reducing of seal taking of</b></p> <p>4.1. Reducing and/or prohibition the hunting and the taking of Caspian seals on the period of its population decline</p>	<ul style="list-style-type: none"> <li>• Countries could make their decision on seals taking of with consideration of recommendation of RSC. The taking of seals could be prohibited, if such recommendation will be make by RSC and approved by Commission for Aquatic Bioresources</li> </ul>	<ul style="list-style-type: none"> <li>• RSC elaborate recommendations on reduction/prohibition of seal hunting with further submitting to the Commission of Aquatic Bioresources or other designated bodies</li> <li>• If necessary, prepare proposals to make an appropriate changing in national legislation through the proper channels.</li> </ul>
<p>4.2. The competent authorities may grant permissions to seals taking of (other than official hunting) in next cases:</p> <ul style="list-style-type: none"> <li>• For national, regional, international Institutions or teams to be designated performing scientific research into the conservation of the Caspian seal population or the conservation of the Caspian Sea ecosystem, insofar as the information required for such research cannot be obtained in any other way;</li> <li>• For Institutions to be designated nursing seals insofar as these are diseased or weakened seals or evidently abandoned suckling seal pups, in order to release them after recovery</li> <li>• For Institutions to be designated as educational aquaria for the public</li> </ul>	<ul style="list-style-type: none"> <li>• RSC should prepare recommendations to National Governments and Commission for Aquatic Bioresources of the Caspian Sea on each event of taking of seals for scientific researches.</li> <li>• Prevention of groundless taken seals into captivity for scientific research.</li> <li>• If necessary seal rehabilitation facilities, can be designed</li> <li>• Prevention of useless kept seals in public aquaria.</li> </ul>	<ul style="list-style-type: none"> <li>• RSC should meet to consider any applications from national, regional, international Institutions or teams for taking of seals for scientific researches with further submitting of recommendations to the designated organizations.</li> <li>• All permissions for taking seals into captivity for research should be evaluated by RSC, and recommendation should be addressed to competent organs;</li> <li>• Develop special recommendation on kept seals into captivity for scientific research if (a) animal welfare conditions can be met and (b) the research is deemed to be necessary for seal conservation and scientifically sound according to international standards.</li> <li>• Rehabilitation programme can be developed as conservation, welfare and rehabilitation tool if necessary.</li> <li>• A rehabilitation facility and public aquarium might be combined, if deemed to be appropriate by RSC;</li> <li>• Develop special recommendation on kept seals in public aquaria if (a) standards of animal welfare,</li> </ul>

Objectives	Outputs	Activities
<ul style="list-style-type: none"> <li>• In prevention of further suffering of death-sick animals</li> </ul> <p>4.3. Prevention of illegal hunting and other illegal taking of seals.</p>	<ul style="list-style-type: none"> <li>• Seals which are clearly suffering and cannot survive may be humanely euthanized</li> <li>• Create effective overseeing system coordinated by state administrative agencies, which should concerned all seal matters</li> </ul>	<p>display and educational criteria are met by the aquaria and (b) the aquaria is demonstrably serves in the regional public interest and serves a strong educational and conservation purpose.</p> <ul style="list-style-type: none"> <li>• An appropriate changing in national legislation should be done with a list of persons and/or organizations designated to make euthanizes (fully qualified veterinarian or biologist)</li> <li>• Each euthanize need to be provided with <ul style="list-style-type: none"> <li>a) full report of the event and the burial of the carcasses</li> <li>b) a necropsy and tissue sampling</li> <li>c) no parts of the body are given for sale or monetary gain</li> </ul> </li> <li>• Establish a region-wide agreement applicable to all countries that disallows any deliberate injuring, killing or taking of seals without a special permission issued by competent organs;</li> <li>• This agreement should include seals at haul-out sites, seals in seal-fisheries interactions, and seals in scientific research;</li> <li>• Establish overseeing system in all existing reserves and other protected areas through the Caspian Sea guided by an uniform standard;</li> <li>• Strength a system preventing illegal hunting in the seal breeding areas in the ice-field, by using satellite surveillance, regulation of markets for seal products (such as sealskin), and other appropriate measures.</li> </ul>
<p><b>5. <u>Public information</u></b></p> <p>5.1. General public awareness of the conservation status of the population, conservation measures, and population condition of the seal in the Caspian Sea</p>	<ul style="list-style-type: none"> <li>• To inform the public throughout the region on implementation of the Caspian Seal Conservation Action Plan (CSCAP).</li> <li>• Provide unified understanding of seal migration through all Caspian Sea and it importance in the</li> </ul>	<ul style="list-style-type: none"> <li>• RSC should establish and maintain Caspian seal information web-site in different languages;</li> <li>• RSC should publish brochures, posters and leaflets to enhance public awareness;</li> <li>• RSC to have a qualified, full- or part-time public</li> </ul>

Objectives	Outputs	Activities
	<p>Caspian Sea ecosystem.</p> <ul style="list-style-type: none"> <li>• To inform the public when they could disturb seals, what can be the negative consequences of such disturb and how they can avoid it.</li> <li>• To inform the public what to do in the event of finding an alive, sick or dead seal on the beach.</li> </ul>	<p>awareness officer to take care of public information;</p> <ul style="list-style-type: none"> <li>• RSC avoid publishing information, which could lead to increasing of deliberate illegal killing of seals;</li> <li>• RSC should publish all data obtained from seals count survey, seals health surveys, and investigation of seals mortalities events in scientific journals, make these materials transparent, and available to national and international institutions, Governments of all Caspian countries, all relevant conservation and management authorities in the Caspian region, and general public.</li> </ul>
<p>6. <u>Financial implication</u></p>	<ul style="list-style-type: none"> <li>• Incorporate CSCAP in National and Regional Strategic Action Plans.</li> <li>• Informing of International organization on the status of Caspian seal and present condition of it population.</li> </ul>	<ul style="list-style-type: none"> <li>• Presenting CSCAP to appropriate National and Regional organizations through proper channels for endorsement and financial support.</li> <li>• Develop international projects dealing with conservation and investigation of the Caspian seal and submit it to the appropriate Organizations.</li> </ul>