Ministry of Natural Resources and Environment of the Russian Federation

National Report
on the Implementation of the Framework Convention
for the Protection of the Marine Environment of the Caspian Sea

2008

Moscow, 2013
General Information

1. Reporting Party

<table>
<thead>
<tr>
<th>Contracting Party</th>
<th>Russian Federation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting period</td>
<td>2008</td>
</tr>
<tr>
<td>National Focal Point</td>
<td>MNRE of Russia</td>
</tr>
<tr>
<td>Full name of the institution</td>
<td>Ministry of Natural Resources and Environment of the Russian Federation</td>
</tr>
<tr>
<td>Name of the National Focal Point (NFP)</td>
<td>Natalia B. TRETIAKOVA (Ms.)</td>
</tr>
<tr>
<td>Mailing address</td>
<td>4/6 Bolshaya Gruzinskaya street, Moscow 123995, Russia</td>
</tr>
<tr>
<td>Tel</td>
<td>+ 7 499 2544800</td>
</tr>
<tr>
<td>Fax</td>
<td>+ 7 499 2544310; + 7 499 2546610</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:minpriody@mnr.gov.ru">minpriody@mnr.gov.ru</a></td>
</tr>
<tr>
<td>Contact point for the national report</td>
<td>ANO CIP</td>
</tr>
<tr>
<td>Full name of the institution</td>
<td>Autonomous Non-Profit Organization “Centre for International Projects”</td>
</tr>
<tr>
<td>Mailing address</td>
<td>58b Pervomayskaya street, Moscow 105043, Russia</td>
</tr>
<tr>
<td>Tel</td>
<td>+ 7 499 1650562</td>
</tr>
<tr>
<td>Fax</td>
<td>+ 7 499 1650890</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:centre@eco-cip.ru">centre@eco-cip.ru</a>; <a href="mailto:okpd@eco-cip.ru">okpd@eco-cip.ru</a></td>
</tr>
<tr>
<td>Signature of the NFP</td>
<td></td>
</tr>
<tr>
<td>Date of submission</td>
<td></td>
</tr>
</tbody>
</table>

3. References

List of documents used for the preparation of the National Report:
- Informational materials of the bodies of the state authority of the near Caspian subjects of the Russian Federation;
- SOI of Roshydromet Annual «Marine Waters Quality by Hydrochemical Indicators” for 2008;
- Informational materials of the projects under the “Caspian Environment Programme”.

4. Volume

The volume of the National Report (in English) is _______ pages.


Introduction

5. The status of the Tehran Convention and Protocols to it in the Russian Federation

Entered into force in August 2006 the Tehran Convention is now the backbone for the environmental cooperation in the Caspian Sea region representing the document that includes a number of provisions meeting the needs of the Caspian littoral states and the concrete conditions of the Caspian Sea. Russia is the party to the Convention since 2003.

The uniqueness of the Tehran Convention as the legal instrument for addressing the environmental problems of the Caspian Sea and specific tasks posed to the littoral states in the field of environmental protection in the region in terms of illegitimacy of direct application of maritime conventions at the Caspian, is related to the fact that it is the initial and so far the only multilateral treaty in the Caspian Sea region.

The Tehran Convention in line with the natural and international legal features of the Caspian Sea introduces the modern forms of the regional cooperation in the field of pollution prevention, reduce and control; protection, conservation and restoration of the marine environment; application of assessment of impact on the Caspian Sea marine environment; monitoring of the state of the marine environment; scientific studies and developments; information sharing etc. It is the tool for the Caspian environmental protection and sustainable management of its resources, not affecting the legal status issues.

The main specificity of the Tehran Convention is that it implements the international legal regulating of activity on the Caspian Sea marine environment protection under the conditions when the provisions of the existing maritime conventions are illegitimate for direct application (at the Caspian).

The key point of the Tehran Convention is acknowledgment of ecological integrity of the Caspian Sea.

The Russian national environmental policy considers the Caspian as the geographically unique and ecologically system-integral body, when the status of the Caspian Sea and all problems related to the economic and other activity at its water area are addressed upon agreement of the Caspian littoral states exclusively.

The ecological integrity of the Caspian Sea has another highly important aspect. Precisely due to this objective and recognized fact any impact on the Caspian Sea marine environment, wherever it takes place, becomes, in principle, the transboundary one. In other words, any anthropogenic intervention into the Caspian ecosystem functioning to a certain degree affects all the littoral states regardless the problems of interstate delimitation and status of the Caspian.

When signing the Tehran Convention the Russian party proceeded from the fact that this will establish the incentives for the adoption of other multilateral agreements related to the cooperation at the Caspian.

The Presidents of the Caspian states expressing the satisfaction with the Tehran Convention’ entry into force, stressed the “necessity in the shortest development and adoption of ancillary protocols to it”. Such an assessment allows considering the Tehran Convention as demanded modern and evaluating legal instrument for the regional environmental cooperation, which become the enough effective mean for environmental problems resolution and provision of ecological safety under the implementation of the Caspian natural resources and, in particular, energy resources, potential.

Since its entry into force the Tehran Convention became the integral part of the Russian environmental legislation, stimulating the further development in the modern conditions of an effective regulatory base for provision of counteraction against pollution from various sources, environmental safety under the development of oil deposits offshore in a transboundary context, and conservation of the Caspian biodiversity.

6a. Legislative, institutional, economic, as well as other means of implementation of the Tehran Convention and its protocols provisions.
Legislative mechanisms for the implementation of the provisions of the Tehran Convention in the Russian Federation.

Activities to address the problems of the environmental protection and rational nature use in the Russian Federation has a developed legal basis in the form of federal laws, which mostly have a framework character, and their provisions are further developed in bylaws.

As compared with the first (2006-2007) National report, the Federal Law “On the Protection of the Environment”¹, which is the basis of the environmental legislation, was amended by replacing the words “the Government of the Russian Federation” with the words “the federal executive body authorized by the Government of the Russian Federation” in the article on the state environmental monitoring (Article 63), related to the environmental monitoring organization. Also editorial changes were made to the relevant articles related to the payment for an adverse impact on the environment (Article 16), to the requirements in the field of the environmental protection at reconstructing and constructing activity (Article 43), and to the control in the field of the environmental protection (Article 64).

In comparison with the previous reporting period, a number of amendments were introduced into the Water Code². Thus, the list of reasons for compulsory termination of the right to use a water body was also supplemented with the reasons established by the legislation on the concession agreements (Part I of Article 10). In the article, which regulates leasing of a water body on the basis of water use agreement or a decision on a water body provision for use, it was determined that the dredging and other activities in the sea or river port area, as well as the maintenance of inland waterways in the Russian Federation, the creation of artificial land sites in the sea or river port do not require water use agreement or a decision on a lease of a water body for use (Article 11).

The article, which regulates the use of water bodies for the drinking water and public water supplies purposes, was supplemented with a provision which said that housing, constructing of industrial facilities and agricultural land in the zones of sanitary protection of drinking water sources would be banned or restricted, if this is envisaged by sanitary rules and regulations (Article 43).

According to the Water Code of the Russian Federation the terminology of some federal laws was changed as follows: the concepts of “water” and “water reservoir” were replaced by the term “water body”, the definition “drinking water supply” was completed by “and public water supplies”, and “water storage reservoir” was replaced by the words “water bodies”, etc.). Those changes were introduced into the Federal Law “On Amendments to the Water Code of the Russian Federation and Certain Legislative Acts of the Russian Federation”³.

Also, the Federal Law “On Enactment of the Water Code of the Russian Federation”⁴ was supplemented by Articles 6.1, 6.2, 6.3, and 6.4. These articles stipulate that no later than January 1, 2015: the limits and quotas for water resources intake from a water body and waste water discharge for each subject of the Russian Federation would be established by the authorized federal executive body in the manner specified by the Government of the Russian Federation; setting of norms for water substances and micro-organisms in the waste water discharges and (or)

drainage water would be carried out on the basis of MPC for chemicals, radioactive substances and micro-organisms and other indicators of water quality in the water bodies; and the rules of operation of water reservoirs, developed and approved prior to the enactment of the Water Code, may be used.

In 2008 some changes were introduced into the Forest Code of the Russian Federation⁵, related to insurance of the citizens rights to public use of forests, to improvement of the procedure for organizing auctions on the sale of rights to lease forest land and contracts for the sale of forest range, to improvement of the procedure of the forest use with some activities purposes, as well as to the insurance of the forest fund rational use. The law prohibits the forest area users to oppose the citizens’ access to the area (Item 8 of Article 11). In addition, it was prohibited to arrange gardening and summer cottage non-profit associations of citizens in the forest fund areas and provide them with sites for individual activities, as well as for garage and housing construction (Part 2 of Article 9). The procedure for realization of timber, obtained through the use of forests at the forest fund lands, was streamlined (Part 3 of Article 20). Persons, using forest areas for the said purposes, might conclude a lease agreement on wood sites for timber harvesting without a tender (Article 79). The use of the reserved forests without cutting of forest range was allowed (Article 109).

The Federal Law “On Land Management”⁶ is considered as an important act regulating the protection of land. Only after the land managing activity and identification of the land quality its rational use and protection can be planned. In accordance with the Federal Law “On the State Real Estate Cadastre”⁷, entered into force on March 1, 2008, the formats of certain documents, including surveying plan, and the conduct of state real estate cadastre were approved. Also in 2008 the regulations clarifying the provisions on differentiation of the state-owned land and on reservation of lands for the state and municipal needs, as well as the transfer of land from one category to another, were adopted.

In the Federal Law “On the Internal Waters, Territorial Sea and Contiguous Zone of the Russian Federation”⁸, the Item 2 of Article 11, which defines innocent passage through the territorial sea, was set out in a new version. The definitions “living marine resources” and “commercial exploitation of living resources” were replaced with the terms “aquatic biological resources” and “activity in the field of fishery” in the article regulating innocent passage in the territorial sea by foreign vessels (Item 1 of Article 13). In the articles establishing the no-shipping and temporarily dangerous for shipping areas (Item 1 of Article 15), the basic principles of economic relations at using natural resources (Item 3 of Article 21), the reasons for refusal to get a permission for marine scientific researches (Item 1 of Article 27) and regulating waste disposal (Item 1 of Article 37) the definitions “living marine resources” and “commercial exploitation of living resources” were also replaced by the terms “aquatic biological resources” and “activity in the field of fishery”. Besides, in the article establishing the no-shipping and temporarily dangerous for shipping areas (Article 63), changes in the part, concerning a decision-making to establish the ban, were introduced by replacing the “Government of the Russian Federation” with “the federal executive body authorized by the Government of the Russian Federation”.

The Federal law “On Fishing and Conservation of Aquatic Biological Resources”⁹ is the basic

---

⁷ Federal Law “On the State Cadastre of Real Estate” of 24.07.2007 № 221-FZ.
legal act with regards to fisheries. In 2008, the significant changes were introduced into it in compliance with the Federal Law “On Amendments to the Federal Law “On Fisheries and Conservation of Aquatic Biological Resources and Certain Legislative Acts of the Russian Federation”\textsuperscript{10} which entered into force on 1 January, 2008. Those changes related to definition and clarification of such notions as “\textbf{fishing}” (Item 9 of Article 1), “\textbf{total allowable catch of marine biological resources}” (Item 12 of Article 1), “\textbf{the quota for the harvest (catch) of aquatic biological resources}” (Item 13 of Article 1), “\textbf{the share of quotas for the harvest (catch) of aquatic biological resources}” (Item 14 of Article 1) and “\textbf{permission to harvest (catch) aquatic biological resources}” (Item 19 of Article 1). The wording “the law on living aquatic resources” was replaced with “the law on fisheries and conservation of marine biological resources”.

Also there was the new wording of articles relating to: the regulation of the right to harvest (catch) aquatic biological resources (Article 11), restriction and termination of the right to harvest (catch) aquatic biological resources (Articles 12 and 13), the tools to protect the right to harvest (catch) aquatic biological resources (Article 14), fishery basins and water bodies of fishery importance (Article 17), commercial fishing (Article 19), etc.

The Federal law included a number of new provisions and legislative norms in the field of fisheries, which are aimed at strengthening of the state regulation of the fisheries industry in the Russian Federation. The new provisions envisaged the \textbf{determination of the order and principles of distribution of quotas for the harvest (catch) of the aquatic biological resources among users} (Item 7 of Article 2, Article 28, Article 30), and \textbf{creation of the conditions to oppose poaching by economic methods} (Articles 53-54).

Thus, there is the right to harvest the aquatic biological resources on the basis of contracts and decisions of the authorized executive body in the field of fisheries. Commercial fishing, including coastal fishing, is prohibited for foreigners, as well as for the fishing vessels, which are owned by foreigners by the property or other rights (\textbf{Chapter 3.1. Decisions of the government authorities and also treaties on the basis of which the right to harvest (catch) living aquatic resources related to objects of fisheries arises}). The amendments also envisaged certain allocating quota procedures for sport and amateur fishing and their subsequent distribution among users (Parts 1, 5 of Article 24).

An agreement on allocation of the fishing area is concluded by results of a tender, and the procedure of organization and conduct of the tender for the right to sign the contract for allocation of the fishing area is established by the Government of the Russian Federation (Articles 33.2 - 33.3).

In 2008 the Federal Law “On Animal World”\textsuperscript{11} was improved by the following amendments: the procedure of the \textbf{state accounting and inventory of fauna objects} (Article 14), of the \textbf{state monitoring of fauna objects} (Article 15), the order of the \textbf{state registration, replenishment, storage, acquisition, sale, transfer, export from the Russian Federation and import of zoological collections or single pieces} (Article 29) are established by the federal executive body authorized by the Government of the Russian Federation.

In Article 6 the words “in the field of agriculture and fisheries”, “on development of the state policy and legal regulation in the sphere of agriculture and fisheries”, “fish conservation


measures” were replaced by the words: “in the sphere of the protection and use of fauna objects and their habitat”, “on the development and implementation of the state policy and legal regulation in the field of fisheries”, “fishery activities”.

Article 55, which regulates administrative and criminal liability for violation of the Russian Federation laws in the field of protection and use of fauna and its habitat, was presented in the new version.

In the Federal Law “On Specially Protected Areas”\textsuperscript{12}, the word “water” was replaced by “water bodies” (Items 1, 2 of Article 6 and Item 2 of Article 12).

The Federal Law “On Amendments to the Federal Law “On Environmental Expertise”, and articles 49 and 54 of the Urban-Planning Code of the Russian Federation”\textsuperscript{13} introduced the following amendments into the Federal Law “On Environmental Expertise”: there were regulated issues relating to \textit{the state environmental expertise at the protected areas lands performing}. It was established that the facilities project documentation (including those of high-risk, technically complex and unique, and facilities of defense and security), which are to be constructed, reconstructed, seriously repaired on the specially protected areas lands (of federal, regional or local) should be subject not only to the state expertise, but also to the state environmental expertise (Articles 11 and 12).

Article 14, which \textit{regulates the procedure of the state environmental expertise performing}, identified a special regime of the state environmental expertise on the protected nature areas, a list of necessary documents, duration and the expertise procedure. In accordance with Item 3 of Article 14, the inception \textit{of the state environmental expertise} should be no later than three days after it was paid for and a set of necessary materials and documents were received.

In addition to the federal legislation, the constituent entities of the Federation adopt their laws and bylaws. In the Caspian region the constituent entities’ legislation on protection of the environment and specially protected areas, on conservation of fauna, on hunting, and on organization and performance of the environmental expertise, tourist activities, etc., is realized.

\textbf{List of legal acts of the constituent entities of the Federation in the Caspian region on issues related to the implementation of the Tehran convention provisions.}

Astrakhan region

- Law of the Astrakhan region of 05.05.2008, № 21/2008-OZ “On Some Issues of Legal Regulation of Natural Resources Management and the Environment Protection in the Astrakhan Region”;
- Decree of the Government of the Astrakhan region of 11.04.2008 № 149-P “On Approval of the Procedure of Restrictions Related to Movement of Vehicles in Settlements, Recreation and Tourism Areas within the Protected Natural Areas in the Astrakhan Region in order to Reduce

Harmful Substances (Pollutants) Emissions into the Atmospheric Air”;
- Decree of the Government of the Astrakhan region of 04.05.2008 № 185-P “On Approval of the Interim Procedure for Issuing Permits for Harmful Substances (Pollutants) Emissions into the Atmospheric Air in the Astrakhan Region”;
- Decree of the Government of the Astrakhan region of 05.08.2008 № 417-P “On the State Nature Reserve “Bogdinsko-Baskunchaksky” in the Astrakhan Region”;

The Republic of Dagestan


The Republic of Kalmykia


Changes in the institutional framework of environmental policy in the Caspian region constituent entities of the Russian Federation

- Changes in the institutional framework of the environmental policy in the Caspian region constituent entities of the Russian Federation are connected with enhancement of the Government administrative reform. In accordance with the Decree of the Russian Federation “On the Ministry of Natural Resources and Ecology of the Russian Federation”15, the Ministry of Natural Resources (MNR of Russia) was transformed into the Ministry of Natural Resources and Environment of the Russian Federation (Minprirody of Russia).

Economic mechanisms.

The major economic mechanisms for implementation of the Tehran Convention provisions on the near Caspian territory of Russia are presented in the First National report (2006-2007).

The concrete environmental areas of economic activity are reflected in the long-term conceptions and strategies of development of the country production facilities.

---

Table 1

Investments in the environment protection and rational use of natural resources in 2008

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Protection and rational use of natural resources</th>
<th>Air</th>
<th>Protection and rational use of land resources</th>
<th>Processing, neutralization and disposal of wastes</th>
<th>Protection and reproduction of fish stocks</th>
<th>Establishment of specially protected and other protected areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Republic of Dagestan</td>
<td>75817</td>
<td>6b</td>
<td></td>
<td>75817</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Republic of Kalmykia</td>
<td>124954</td>
<td>6b</td>
<td></td>
<td>66954</td>
<td></td>
<td>58000</td>
<td></td>
</tr>
<tr>
<td>The Astrakhan region</td>
<td>2323993</td>
<td>7951</td>
<td>17392</td>
<td>2164783</td>
<td>1289</td>
<td>73601</td>
<td>977</td>
</tr>
<tr>
<td>The Caspian sea area</td>
<td>2466764</td>
<td>7951</td>
<td>17392</td>
<td>2307554</td>
<td>1289</td>
<td>131601</td>
<td>977</td>
</tr>
</tbody>
</table>

6b. Activity on implementation of obligations under the Tehran Convention on the protection of the Caspian marine environment in various national sectoral and inter-sectoral plans/programs.

The Decree of the Government of the Russian Federation “On the Federal Targeted Program “South of Russia”16 (2008-2013) adopted the Program, aimed at providing the conditions for the sustainable socio-economic development of the regions of the Southern Federal District. The main objective of the Program is to improve the well-being and quality of the population life in the republics of the Southern Federal District. The priority areas of the Program are to ensure employment of the population, the development of tourism and recreation, industrial and agricultural sectors. The Program envisages the creation and development of industrial and agricultural enterprises in the republics of the Southern Federal District, modernization of the existing enterprises and *the development of new tourist zones (the Caspian coast, ethnographic areas in Kalmykia*), *the development of engineering infrastructure and housing and municipal services in the cities and settlements, reconstruction of the water supply, sewerage and sewage treatment plants, the development of social infrastructure, including the environment protection. Funding for this activity is to be allocated from extra-budget part of the Federal Target Investment Program, the Federal Fund for Regional Development, as well as from investment funds of the RAO “UES of Russia”, “Russian Railways” Company, “Gazprom” Company and other sources.

At present on the territory of the Republic of Dagestan, the Republic of Kalmykia and the

---


* The more detailed information is provided in the respective thematic sections.
Astrakhan region measures are being undertaken in varying degrees under a number of FTPs of Russia. Currently, all municipalities of the Caspian Russian entities have elaborated and adopted their “Plans of Socio-economic Development”.

The Federal Target Program (FTP) “Social Development of Rural Areas until 2012” provides financing of measures to increase the level and quality of drinking water for the rural population up to 66.3%. In compliance with this FTP in the Astrakhan region the Integrated Target Program (ITP) “Social Development of the Villages in the Astrakhan region until 2010” was elaborated. Since 2007 it has been performing.

Also the FTP “Conservation and Restoration of Soil Fertility of Agricultural Lands and Agricultural Landscapes as the National Assets of the Russian Federation for 2006-2010 and 2013” should be noted.

In 2008 within the framework of the state investments the Federal Water Resources Agency carried out a number of water management and water protection activity under the federal and departmental target programs, in order to:
- ensure the safety of the population and the economy from floods and other adverse effects of waters;
- ensure the safety of human life and economic facilities from flooding and other adverse effects of waters, as well as to develop a system of monitoring and forecasting of typical and rarely repeated scenarios of emergency and catastrophic events on the hydrotechnical facilities;
- maintain river water availability and to create water storage basins and water management systems to meet the social and economic needs for water effectively.

The above activity included the reconstruction and rehabilitation of irrigation and drainage systems, construction of erosion control structures; measures were undertaken to protect farmland from water erosion, flooding and water logging, to restore desertified and damaged lands, including Chernozemye (Black Soils) and Kizlyar pastures.

Funding for the Program “Conservation and Restoration of Soil Fertility of Agricultural Lands and Agricultural Landscapes as the National Assets of the Russian Federation for 2006-2010 and 2013” comes from the federal budget, the budgets of the Astrakhan region, the Republics of Kalmykia and Dagestan, as well as through co-financing.

For the above Caspian region territory the Program includes objects of the federal importance, which are funded by the state capital investments and located on the territory of Dagestan (reconstruction of Kargaly Dam on the Terek river) and Kalmykia (the construction of Iki-Burulsky clustered water supply, linked to the North Levokumskaya groundwater deposit, and the Northern clustered water supply).

The program of socio-economic development of the Astrakhan region (2005-2008)17 * and the targeted Program “Conservation and Restoration of Soil Fertility of Agricultural Land in the Astrakhan Oblast in 2007-2010”18 were presented in the First National report in details and were not changed within the reporting period.

---


The “Program for Economic and Social Development of the Republic of Dagestan for the Period by 2010” (2004-2010)\(^{19}\) envisages the technical re-equipping of the enterprises on reproduction of fry of ordinary and sturgeon species. That allowed to increase the fish catchment amount up to 15.6 th. tons, including catchment of pond fish up to 3 th. tons.

Decree of the Government of the Republic of Kalmykia endorsed the “Program of Socio-economic Development of the Republic of Kalmykia” for 2005-2012\(^{20}\), which envisages the development of economy sectors, increase in their competitiveness, production growth and providing social security to workers. In order to implement the Program, the “Energy Strategy of the Republic of Kalmykia for the period up to 2020” was developed. It regulated the interaction of fuel and energy facilities, the subjects of the regional economics and all levels of the governmental bodies. In case of confirmation of geological expectations and successful start-up of new deposits in the Caspian Sea and onshore, oil extraction can reach more than 5 million tons per year by 2010. The main negative processes, reducing soil fertility, are water and wind erosion, dehumidification, salinity, alkalinity, flooding, water logging and others. Low fertility of soil, its reclamation disorder, large scale and intensity of land degradation combined with unfavorable climatic conditions, result in annual shortfall of agricultural products.

Description of the target programs “Conservation and Restoration of Soil Fertility of Agricultural Land and Agricultural Landscapes as the National Assets of the Republic of Kalmykia for 2006-2010”\(^{21}\) and “Revival of Traditional Pasture Cattle Breeding (2001-2010)”\(^{22}\) were presented in the First National report.

7. Brief description of the areas of cooperation between the Russian Federation and the Parties to the Tehran Convention on the thematic areas of its implementation.

The Russian Federation interaction with other Caspian littoral states on implementation of the Tehran Convention provisions is carried out in the frameworks of the Commission of Aquatic Bioresources of the Caspian Sea and Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASPCOM).

The Russian Federation participation in activity of the Commission of Aquatic Bioresources of the Caspian Sea is implemented by the Federal Agency of Fishing in order to comply with the unified fishing rules. In early December, in Ashgabad (Turkmenistan), there was held the 29th meeting of the Commission on Aquatic Bioresources of the Caspian Sea. The countries submitted reports on the use of the catch quotas for sturgeon and other aquatic organisms, on the protection and reproduction of aquatic biological resources of the Caspian Sea in 2008, and also provided information on the progress in the research work on the status of the ABR and the assessment of their stocks. One of the main items on the agenda was the determination of the biological resources TAC in the Caspian Sea for 2009 and the approval of quotas for aquatic organisms by the Caspian states. As mandated by the 28th Commission on Aquatic Bioresources of the Caspian Sea, the Russian Federation developed on the basis of the available information and presented substantiation for allocation of the national catch quotas among the Caspian states in compliance with 7 criteria. However, the issue of distribution of the national catch quotas by 7 criteria was not confirmed. As a result, the participants of the meeting signed a letter of “the first round” protocol.

---


\(^{22}\) Order of the President of the Republic of Kalmykia “On the Presidential Targeted Program “Revival of Traditional Pasture Cattle Breeding (2001-2010)” of 10.05.2001 № 73.
of the 29th session of the Commission on Aquatic Bioresources of the Caspian Sea and agreed to continue the work in January-February 2009.

Russia’s participation in the activities of the Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea (CASP(COM)) is performed by the Roshydromet and, in particular, by the Caspian Marine Scientific Research Centre (KaspMNIZ). For example, in 2008 the Republic of Kazakhstan (Alma-Ata) hosted the 13th Session of CASP(COM). The session was attended by representatives of the Republic of Azerbaijan, the Islamic Republic of Iran, Republic of Kazakhstan, the Russian Federation, international organizations, and the scientific, educational and industrial organizations of the Republic of Kazakhstan.

The main results of the activities of the Coordinating Committee on Hydrometeorology and Pollution Monitoring of the Caspian Sea in 2007-2008 were: 1) draft agreement on cooperation of the Caspian littoral states in the field of the Caspian Sea Hydrometeorology, which was revised with account of NHMS proposals made at the 12th Session; 2) model tables of the General Catalogue of the Caspian Sea and the Annual reference guide on the hydrometeorological regime of the Caspian Sea, prepared by the NHMS and the CASP(COM Working group; 3) a review of the national activities on development of the information communications and meteorological radars network, prepared by the CASPAS Coordinator on the basis of NHMS submissions and 4) the national achievements in the field of hydrometeorology and monitoring of the Caspian Sea, which created the basis for enhancing cooperation among NHMSs and made it more effective.

8. Cooperation in the frameworks of bilateral agreements with the Caspian littoral states, as well as with international institutions.

Bilateral agreements of the Russian Federation with the Caspian littoral states and multilateral treaties, conventions and agreements, including those for which Minprirody of Russia was identified as the leading agency, were listed in the First National report.

9. Application in the Russian Federation of rules and procedures of international treaties in force for the development of (national) rules and procedures concerning liability and compensation for damage to the environment of the Caspian Sea resulting from violations of the provisions of this Convention and its Protocols (Articles 28 and 29).

The Russian Federation cooperates with the Contracting Parties to the Tehran Convention on the elaboration of the procedures to ensure that each Contracting Party will follow the provisions of the Convention and its protocols on a conformed basis.

According to the normal practice, the national legislation of the Russian Federation is adapted in order to meet the above-mentioned international treaties obligations. To implement the CITES provisions regarding the species included in its applications the following penalties for the illegal catch and trade in specimens, their parts and derivatives, falling under the provisions of the Convention, are applied at the national level: confiscation of specimens and trapping tools, fines and compensation for damage. The relevant provisions regulating this activity are included into the corresponding laws and codes.

PART 2. REVIEW OF ACTIVITIES FOR THE IMPLEMENTATION OF THE PROVISIONS OF THE TEHRAN CONVENTION AND ITS PROTOCOLS.

Pollution from land-based sources (Article 7 of the Tehran Convention and the draft Protocol for the Protection of the Caspian Sea against pollution from land-based sources and implementation of land-based activities).
10. **Implementation of national action plans and programs on reduction or elimination of pollution from land-based sources or implementation of land-based activities.**

In 2008 total emissions of pollutants into the atmospheric air from the point pollution sources in the Caspian region of the Russian Federation amounted to 457.5 thousand tons. Herewith emissions of pollutants from stationary sources in the reporting period amounted to 148.7 thousand tons (32.5 % of all emissions in the area), and in the specified volume 67.8 % are emissions from “Astrakhangasprom” Company.

The volume of emissions of pollutants into the atmospheric air from stationary sources of pollution in 2008 in the Caspian area decreased by 16.3 thousand tons in comparison with the previous year, and as compared with 2005 - to 12.3 thousand tons.

There is still the trend of an increase in the atmospheric air pollution emissions from mobile sources of pollution.

In 2008 emissions from motor vehicles amounted to 308.78 thousand tons (or 67.5 % of all emissions in the Caspian area of the country). About 90 % of these emissions came from the Republic of Dagestan and the Astrakhan region.

The blind drainage internal Caspian Sea basin, which occupies most of the European part of Russia with about 80 % of the population and the essential part of the economic infrastructure, had about 7% of the annual flow of rivers of Russia. There is a significant shortage of drinking water in the desert and semi-desert Caspian area.

The main volume of water consumption and water intake in the Russian part of the Caspian Sea basin falls on the Volga River and its tributaries.

**Table 21 Runoff resources in river basins of the Volga and Terek rivers in 2008, cub. km**

<table>
<thead>
<tr>
<th></th>
<th>The average long-term value of water resources</th>
<th>Water resources</th>
<th>The deviation from the long-term average value, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Volga river</td>
<td>238,0</td>
<td>241,0</td>
<td>1,3</td>
</tr>
<tr>
<td>The Terek river</td>
<td>10,5</td>
<td>11,6</td>
<td>10,5</td>
</tr>
</tbody>
</table>

In 2008 the volume of fresh water use (including marine water) in the Caspian area was 4350.13 million cub. m, and this comprised 174 million cub. m (or 3.8 %) less than in the previous year. In the year in question the volume of waste water discharge decreased by 351 million cub. m (or 25.2 %), and the volume of polluted waste water discharge decreased by 2.4 million cub. m (or 1.3 %).

Dangerous deflationary processes and salinization processes were observed, respectively, on 24.3% and 52.7 % of the territory of the Southern Federal District. The rate of desertification of Chernye Zemli (Black Soils) and Kizlyar pastures was unprecedented. Here anthropogenic pressure on the natural landscape was much higher than the allowable level.

The main components of desertification are wind erosion, which results in the soil blowing-off, dehumification and appearance of shifting sands; water erosion, resulting in plane soil-washout, gully formation, salinization and pollution of the environment from technogenic desertification.
11. **Existence in the near Caspian subjects of the Russian Federation of warehouses, landfills, dump sites, etc. of solid consumer wastes and oil development wastes that do not meet the environmental requirements. Technologies applied for their disposal.**

In the Southern Federal District, the total amount of waste in 2008 was 14 million tons. In the Republics of Dagestan and Kalmykia and the Astrakhan region there were practically no modern utilization facilities for processing of production and consumption waste. Most landfills almost exhausted their resources, but continued to operate, causing the corresponding indignation of the population.

The situation with waste management in the Caspian region was one of the most pressing environmental problems, especially it concerned the Republic of Dagestan and the Astrakhan region.

Among the unresolved problems of settlements sanitation in the Caspian region the following should be noted:
- Absence of the system of separate collection and disposal of waste from container sites, poor organization of collection, storage and removal of bulky waste;
- Illegal dumps, causing contamination of soil, ground water, atmospheric air, as well as breeding and feeding of rodents and birds;
- Lack of quantitative and qualitative records of wastes and of the unified database of different types of wastes, volume and storage sites;
- Storage of wastes was carried out without the insulating layers or with irregular seals and intermediate insulation;
- Shortage of technical capacities (or lack thereof) for sorting, recycling and disposal of wastes;
- Poor material and technical resources to ensure communal services, providing sanitation of the residential areas, including the areas of private households and cottages sites.

Besides, most of the existing municipal solid waste (MSW) landfills do not meet the requirements of the SR (Sanitary regulations) 2.1.7.1038-01 «Hygienic requirements for design of landfills for municipal solid waste». As a rule, there is no monitoring of the quality of groundwater, surface water, soil, atmospheric air and working zone air.

The above-mentioned shortcomings show a weak system of waste management by the local executive authorities.

For example, the waste sorting station, which is in operation in Makhachkala, did not resolve the problem of disposing of the town MSW, and the wastes, transported to the authorized landfill, are often burned. Waste disposal sites, resulting from the drilling of wells, are drilling barns, where tens thousands of tons of drilling waste and oily waste are concentrated. Many of the oil storage pits are located in the coastal area of Dagestan.

In the Astrakhan region more than one million cubic meters of waste are produced annually. Poor waste management at existing landfills and unauthorized disposal on lands that are of economic or recreational value (dumps occupy tens of hectares) should be noted. The continued dumping and pollution of land resulted in the increased levels of bacteriological and chemical pollution of surface and underground waters, the atmospheric air.

12. **Availability of stricter requirements of the Russian legislation dealing with prevention of Caspian Sea water and ecosystem pollution than those provided for in the Tehran Convention and its Protocols**
In general, it should be noted that the Russian legislation corresponds with the provisions of the Tehran Convention to a large extent and establishes environmental requirements for sources of harmful effects on the environment, for the protection of human life and health from the adverse effects of the environment, and provides a legal framework for the conservation, restoration, improvement of the environment and the improvement of the environmental safety of the population and territories.

In the Russian Federation types of the water body usage are determined by the Ministry of Natural Resources and Environment jointly with the Ministry of Health and the Federal Fisheries Agency and are approved by the local authorities.

The discharge of waste water into water bodies is one of the types of the special water usage and is carried out on the basis of permits issued, in the established order, by the Ministry of Natural Resources and Environment in consultation with the authorities of the State sanitary inspection, taking into account the requirements of fisheries sector.

Standards for permissible discharges of hazardous substances are set for each source of pollution. Norms for permissible discharge (MPD) of substances are set on the basis of calculations for each waste water discharge keeping in mind unacceptability of an excess of MPD for hazardous substances in the established control zone, or in the area of a water body, taking into account its targeted use, and in case the MPD exceedance in a control section – taking into account the conditions of maintenance (not becoming worse) of the composition and properties of water in water bodies formed under the influence of natural factors.

The main regulatory documents defining the general procedure for the development, review and approval of standards for maximum allowable discharge of pollutants into the water bodies include:
- The Water Code of the Russian Federation24;
- Decree of the Government of the Russian Federation “On Adoption of the Rules for Conforming of Economic and Other Facilities Location, as well as for Introducing of the New Technological Processes, which Impact the Status of Aquatic Biological Resources and Their Habitats”26;
- Directive of the Ministry of Natural Resources of the Russian Federation “On Approval of the Methodology of Developing the Standards for Permissible Discharge of Substances and Micro-organisms into Water Bodies for Water Users”27;
- SanPiN 2.1.5.980-00 “Hygienic Requirements for Surface Water Protection”29, etc.

---

26 Decree of the Government of the Russian Federation "On Adoption of the Rules for Conforming of Economic and Other Facilities Location, as well as for Introducing of New Technological Processes which Impact the Status of Aquatic Resources and Their Habitat" of 28.07.2008 № 569.
29 SanPiN 2.1.5.980-00 "Hygienic Requirements for Surface Water Protection".
13. Systems/procedures for obtaining licenses/permits for waste water discharges to prevent, reduce and control pollution from land-based sources.

The legislative regulation of licensing for the collection, utilization, neutralization, transportation and waste disposal, as compared to the First National report, remained essentially unchanged.

In 2008 the Decree of the Government of the Russian Federation approved the “Regulations on the Licensing of Explosive/Flammable Facilities Operation”\textsuperscript{30}.

14a, b. Trends in the change of polluted waste water discharge amounts and amounts of sewage discharged by industrial and agricultural enterprises, communal services etc., as well as amounts of untreated sewage discharged.

The main volume of contaminated water discharge falls on municipal enterprise Vodokanal. For example, the amount of polluted sewage discharge in Astrakhan is over 90% of the total discharge of this category of waters in the region in general (polluted discharges reach the Volga delta), and the amount of waste water discharge from the city of Makhachkala is more than 70% of the total water discharge in this category in the whole country (the waste water is discharged into the Caspian Sea).

One of the water supply sources in the Russian Caspian area is groundwater, which is used mainly for drinking and irrigation purposes.

As a rule, the main sources of groundwater contamination are petrochemical, engineering and energy enterprises, the location of oil fields, fuel and lubricants warehouses, waste storage, sewage collectors, as well as the activities of agricultural enterprises (infiltration of contaminants from the waste storage and filtration fields, waste water irrigation from livestock farms and poultry farms, filtered water from the areas of agricultural arrays processed with pesticides and fertilizers). In most cases the majority of the land area of contamination is within the area of the sources of groundwater contamination.

As of January 1, 2009, in the Southern Federal District there were identified 850 sites with contaminated groundwater.

Table 2 shows the dynamics of contaminated waste water discharge into the water bodies from the Caspian territory of Russia in 2005-2008, mln. cub. m.

<table>
<thead>
<tr>
<th>Table 2. The volume of contaminated waste water discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>The whole Caspian area, including:</td>
</tr>
<tr>
<td>Republic of Dagestan</td>
</tr>
<tr>
<td>Republic of Kalmykia</td>
</tr>
<tr>
<td>Astrakhan region</td>
</tr>
<tr>
<td>2005</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>181,5</td>
</tr>
<tr>
<td>77,7</td>
</tr>
<tr>
<td>35,9</td>
</tr>
<tr>
<td>67,9</td>
</tr>
</tbody>
</table>

\textsuperscript{30} Decree of the Government of the Russian Federation approved the “Regulations on the Licensing of Explosive/Flammable Facilities Operating” of 12.08.2008 № 599.
Among the Caspian littoral cities of the Russian Federation with the number of the resident population of at least 100 thousand people the greatest volumes of water intake and drainage in 2008 were observed in Astrakhan, Makhachkala and Derbent. In recent years the reduction of contaminated waste water discharge has been reported in these cities.

And here it should be noted that, first, the main part of contaminated water goes to the sewage treatment plants, but these structures do not meet the established treatment standards. Second, the amount of contaminated waste water discharge increased in the period from 2005 to 2008 by 2.7%.

Table 3 summarizes the data on the main pollutants that were contained in the contaminated waste water discharged into the water bodies from the Caspian territory of Russia in 2008.

Table 3  The volume of waste water discharge

<table>
<thead>
<tr>
<th></th>
<th>BOD total, thous.tons</th>
<th>petrochemicals, thous.tons</th>
<th>dry matter, thous.tons</th>
<th>Phosphorus overall, tons</th>
<th>ammonium nitrogen, tons</th>
<th>nitrates, tons</th>
<th>copper, tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republic of Dagestan</td>
<td>1,23</td>
<td>0,23</td>
<td>0,23</td>
<td>0,23</td>
<td>0,23</td>
<td>0,23</td>
<td>0,23</td>
</tr>
<tr>
<td>Republic of Kalmykia</td>
<td>0,37</td>
<td>-</td>
<td>106,12</td>
<td>30,00</td>
<td>78,00</td>
<td>53,00</td>
<td>-</td>
</tr>
<tr>
<td>Astrakhan region</td>
<td>0,23</td>
<td>-</td>
<td>54,60</td>
<td>0,25</td>
<td>89,17</td>
<td>1156,91</td>
<td>0,23</td>
</tr>
</tbody>
</table>

Astrakhan region.

In 2008, of the total volume of waste water discharge from the Russian Caspian territory to the surface water bodies the discharge from the Astrakhan region accounted for 27.3%. The share of the polluted waste water, discharged in 2008, was 19.3% of the total amount of the discharged waste water. “Contribution” of the region to the total contaminated waste water discharge from the Caspian territory was 39.1%.

In the city of Astrakhan, in 2008, the North and South treatment facilities dropped 62.9 million cub. m of the contaminated waste water into the delta of the Volga River. That is more than 86% of the total discharge of the contaminated waste water within the region. Table 4 shows the dynamics of the contaminated waste water discharge by the North and South treatment facilities of the city of Astrakhan in 2005 - 2008, in million cub. m. Factually, the volume of waste water discharge didn’t change significantly within the period in question.

Table 4

Volumes of contaminated waste water discharge by the treatment facilities of Astrakhan in 2005-2008, mln. cub. m

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>North and South USC MUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Vodokanal”, the city of Astrakhan</td>
<td>62,2</td>
<td>62,4</td>
<td>61,2</td>
<td>62,9</td>
</tr>
</tbody>
</table>
The Republic of Dagestan.

In 2008 in the Republic the sanitary-chemical indicators of the water bodies of the category II decreased as compared to 2007. Of 44 water samples 17 did not meet the health standards for chemical indicators (38.6 %). By the content of lactose-positive *Bacillus coli* in 1 cub. dm of water, the share of the water samples that did not meet the health standards by microbiological indicators was 40.4 %, i.e. well above the average in the Russian Federation (19.2 %).

The waste water discharge from the territory of the Republic of Dagestan into the surface water bodies in 2008 was 69.5 % of the total volume of discharge from the Russian part of the Caspian area, and out of the total volume of the polluted waste water discharge from the Caspian area it reached 40.2 % from the Republic territory.

In 2008 the municipal sewage treatment facilities in Makhachkala discharged 53 million cub. m of waste water directly to the Caspian Sea. The major reason for that was overloading of existing treatment facilities. The dynamics of the polluted sewage waste water discharge in the city of Makhachkala is shown in Table 5.

Table 5
The volume of the contaminated waste water discharge by Makhachkala sewage facilities in 2005-2008, mln. cub.m

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUP “OSK Turali - 4”, mln. cub. m</td>
<td>55,3</td>
<td>52,2</td>
<td>52,5</td>
<td>53,0</td>
</tr>
</tbody>
</table>

The Republic of Kalmykia.

In 2008 the discharge from the Republic of Kalmykia was 3.2 % of the total volume of the waste water discharge from the Russian part of the Caspian area into the surface water bodies. The share of the polluted waste water was 87.5 % of the total volume of the discharged waste water. The Republic “contribution” to the total contaminated waste water discharge from the Caspian area reached 20.6 %.

The northern part of the Caspian Sea. According to the Roshydromet observations the concentration of nitrogen and phosphate did not exceed the average annual value in the North Caspian sea waters. The maximum concentration of petroleum hydrocarbons (2.6 MPC) was recorded in the center of the North Caspian aquatoria, near the point of drilling for oil. The average concentration of phenols was 15 MPC. Organochlorine pesticides were not revealed. The content of other substances did not exceed the MPC. The water quality deteriorated from “moderately polluted” category to “polluted”. Only the water quality in the seaside area of the Samur river improved from “polluted” category to the “moderately polluted” index.

Water pollution in the open part of the Caspian Sea. Significant changes in the oxygen regime of the marine waters, as compared to the previous years, were not recorded. The concentration of ammonia nitrogen was below the MPC, the maximum content of total nitrogen was 1.47 MPC. Total phosphorus concentration was 16.9 mkg/l, its maximum reached 27.8 mkg/l. The concentration of petroleum hydrocarbons varied between 0.6-2.2 MPCs. Indicators of the water, polluted by phenols, remained at the same level. The index of pollutants (IP) increased from 1.17 to 1.59. The open waters of the Caspian Sea along the line the Chechen Lake-Peninsula Mangishlak changed qualitatively, and moved from the third category - “moderately polluted” to the fourth – the “contaminated”.

14c. Availability of treatment facilities and plans/programmes for their re-construction.

All treatment facilities in the Republic of Dagestan were built in the period 1950-1980, most of them are operating with a significant overload and require substantial renovation/restoration. The existing sewage treatment facilities in the cities of Makhachkala, Khasavyurt, Kizilyurt, Kizlyar and Yuzhno-Sukhokumsk also require a significant modernization due to lack of capacity. At present there are no sewage treatment facilities in the cities of Derbent, Dagestan Ogni, Izberbash and Buynaksk.

In 2008 the total capacity of the treatment facilities in Dagestan was 6614 mln. cub. m. The capacity of the treatment facilities increased for 0.12 mln. cub. m due to the reconstruction of MUP USC Makhachkala and Kapsiysk and with the transfer of the treatment facilities in the Gingry village with capacity 0.07 cub. m from OAO “RusHydro” (Irganayskaya HPP) to “Barakat” Ltd.

In 2007 in the city of Astrakhan a reconstruction of the aeration system of the southern and northern sewage treatment facilities, of sludge sites, of primary and secondary settling tanks at the northern waste water treatment facilities, as well as reconstruction of biological ponds at the Pravoberezhnie treatment facilities were carried out. A lump sum of 32.5 million rubles was spent for that activity.

Those measures resulted in improvement of indices on BOD, ammonium nitrogen, suspended solids and discharges of some other pollutants.

14d. Volume of the discharged untreated waste water.

In order to resolve the problems of waste water treatment, under the sub-program “Modernization of the Municipal Infrastructure” of the Federal Target program “Housing” for 2011-2015 the activity is being carried out on the expansion and renovation (stage II) of the sewage facilities in the city of Makhachkala with the capacity of 350.0 thousand cubic meters per day, as well as a reconstruction of the sewage treatment facilities (STF) in the Makhachkala - Kapsiysk cities. The budget of the construction is about 6 billion rubles. The facility is to be put into operation in 2015. According to the Federal Target program “South of Russia (2008-2012)” the construction of STF in the cities of Khasavyurt, Izberbash, Dagestan Lights, Kizlyar and Buynaks with the total capacity of 154 thousand cubic meters per day is going on. The completion of STF in Izberbash is planned for 2013.

The volume of investments for these purposes are: Buynaksk - 58.4 million rubles., Derbent - 63.2 million rubles., Izberbash - 48 mln. and Kizlyar - 44 mln. rubles.

15. The use of low-waste and non-waste technologies for the prevention, control and reduction of pollutant emissions; number of objects, at which the corresponding technologies were improved and emission changes took place in this regard.

The Russian Federation is consistently developing the national standards and regulations, compliance with which will promote environmental management and the environment protection. Thus, there were elaborated:


OAO “Gazprom” developed and put into practice a series of regulations aimed at ensuring environmental safety and the environment protection, in particular:
- STO “Gazprom” 2-1.19-102-2007 “Methods to determine the oil content in water and soil by a portable concentration meter IKF–2a”;
- STO “Gazprom” 2-1.19-128-2007 “Technical standards for emissions and leaks of natural gas from the technologic equipment”;
- STO “Gazprom” 2.1.19-182-2007 “Guidelines on design of projects on industrial waste water utilization at UGS operating in porous formations”.

In the Republic of Dagestan a special disposal polygon OOO “SINTEKO-N” was built, where the drilling and other oily waste treatment technology was used. Recycling technology is an integrated process, wherein:
- Liquid waste (drilling waste water and associated formation water) subject to flotation and then to the advanced treatment by biofilters using the environmentally certified biocultures of microorganisms. Then it is assumed to discharge them to municipal waste water treatment facilities;
- Solid waste (waste drilling fluids, oil and drilling sludge) are transferred to the suspension state, subject to the separation into liquid and solid substance and are recycled. The liquid substance is recycled and neutralized according to the technology, semi-liquid substance is neutralized and made solid with detoxifying and curing agents and turned into the technogenic soil, which further is used for commercial purposes.

16. The use of best available technology (BAT) to reduce the inflow of hazardous substances, including organic, from diffuse sources, including in particular those from agricultural production.

In the Russian Federation the problem of disposal/neutralization of such persistent organic POPs as Polychlorinated biphenyls, Hexachlorobenzene, and among obsolete unsuitable for use pesticides - DDT, Toxaphene (polychlorpine and polyclophene) and partly hexachlorobenzene.

The existing in the Russian Federation methods and technologies of POPs neutralization could be divided similarly to the international practice into three options of their implementation:
- disposal of POP-containing wastes with observation of existing norms, safety rules and environmental protection measures;
- processing of POPs to obtain non-toxic substances;
- disposal of POPs.

According to the Russian technology the liquid waste with PCB content of around 90% shall be chemically processed. Sulphonation of source PCB with oleum with further neutralization of products does not allow to reach the PCB conversion level over 99%. As a result the obtained products contain over 50 ppm of PCB, what according to the European norms refer them to the hazardous wastes and require their disposal at the specialized landfill. In Russia the cost of the chemical processing of 1 ton of PCB is around 3,000 US$.

The solution of the POPs elimination problem is complicated with the fact that the special environmentally safe technologies are required for the disposal of unsuitable pesticides.

Several methods of POPs destruction and other chlorine-containing wastes are developed in Russia, with recently it is decided to combine the destruction of liquid obsolete pesticides and PCBs, as the process parameters and hardware design are the same. For destruction of solid and pasty POPs the installation for destruction of liquid POPs are slightly upgraded through adding special mixing equipment for the creation of suspensions or emulsions and dosing equipment.
The most perspective are the burning methods that use:
- high temperature kilns with cyclone reactor;
- combustors of a high-temperature rocket engines;
- installations based on the liquid rocket engines;
- installations based on the plasma-chemical technologies;
- destruction in the flow of hot gases;
- explosion of cartridge explosive containing chemically neutralized PCB;
- fuel of high-temperature combustion and contact heating;
- blast furnaces;
- cement kilns.

Based on the developed technical, environmental and economic requirements to technologies the preliminary assessment of all considered POPs destruction processes, and in line with its outcomes for the further feasibility study four Russian technologies of high-temperature oxidation were selected that use:
- cyclone reactor;
- rocket engine;
- liquid rocket engine;
- plasmatrone and chemical reactor.

17a. Activities carried out to minimize the discharge from a watercourse, flowing through the territory of two or more Contracting Parties or forming a boundary between them.

In the Russian Caspian Sea region the transboundary rivers are the Ural River (with the Republic of Kazakhstan) and the river of Samur (with Azerbaijan). With each of these countries the Russian Federation has bilateral agreements on the protection and use of water resources of these rivers. In general, in the border areas of Russia most often violation of water quality standards is within 1-10 MPC.

In accordance with the Agreement with the Republic of Kazakhstan the Ural River is to be used exceptionally for fishing in its middle and lower parts. Downstream the river, near the Uralsk city, any shipping except for the spring period, is prohibited.

In order to ensure sustainable water supply in the south area of the Republic of Dagestan, a number measures were worked out: the complex hydraulic facilities on the Samur- Derbent channel and the water distribution facilities for channels upper the existing Samur hydroelectric system were to put into operation.

Under the Agreement on Cooperation in the Field of Rational Use and Protection of Water Resources of Transboundary River Samur between the Government of the Russian Federation and the Government of the Republic of Azerbaijan (signed on 03.09.2010), which was being elaborated over a number of years, the principles of water allocation and conservation of the natural ecosystem of the river Samur delta as well as of the joint monitoring of water resources were determined.

18. System of regular inspection and supervision that regulates emissions into the environment.

The functions of the state control in the internal waters, territorial sea, continental shelf and exclusive economic zone of the Russian Federation are assigned with the Federal Supervisory Natural Resources Management Service of the Ministry of Natural Resource and Environment of the Russian Federation, where 6 directorates on the technical support of the supervision at the sea, including the Northern-Caspian Directorate with the branches in Kalmykia and Dagestan were established in 2007.
The Order of the Ministry of Natural Resource of the Russian Federation adopted the “Administrative regulations of the Federal Supervisory Natural Resources Management Service on implementation of the state functions for issuing licenses (permits) according to the established procedure for the construction, operation and use of artificial Islands, installations and facilities, drilling works, connected with the geological study, prospecting, exploration and development of mineral resources, as well as the laying of submarine cables and pipelining in the internal waters, the territorial sea and on the continental shelf of the Russian Federation”.

The water control and survey of hydrotechnical facilities safety is performed by the territorial bodies of the Federal Supervisory Natural Resources Management Service in interaction with the representatives of the territorial bodies of the Federal Water Resources Agency, law enforcement structures and executive authorities of the constituent entities of the Russian Federation.

The environmental activity of the prosecutor's office becomes even more significant. The greatest number of violations, same as in the previous years, was revealed by prosecutors in the field of land, water and the atmospheric air.

The territorial and environmental prosecutions are paying significant attention to the most common types of environmental breaches in the region in question.

19. Data on identification of trend in discharges/emissions from the point sources with the condition of obtaining permits from the competent national authorities.

The main sources of pollution of the Caspian Sea marine environment located at the near Caspian territory of the Russian Federation are, in the first turn, enterprises of utilities sector in the cities of Makhachkala, Kaspysk, Derbent, Izberbash, Kizilari, and Astrakhan. At all indicated pollution sources the discharged sewage waters are insufficiently treated and falls under the “polluted” category.

Among these facilities are:
- MUE “Vodokanal” (Water Company) of Astrakhan (includes the Northern and Southern sewage treatments facilities (CTFs). Sewage is discharged into the Volga delta;
- United CTFs of the cities of Makhachkal-Kaspysk, MUE “Derbentgorvodokanal” (Derbent city Water Company) of Derbent, and MUE “City CTFs” of Izberbash are discharging sewage into the Caspian Sea;
- MUE “Kizilarsky gorvodokanal” (Kizilari city Water Company) of Kizilari are discharging sewage into the Terek river.

It is possible that the sewage receives certain pollutants, the treatment against which could be performed at the local treatment facilities at the sites of their origin. But this requires the inventory of discharged sewage waters at all pollution sources.

20. Methods of control of emissions from diffuse sources of pollution.

The main diffuse sources of pollution that dissipate contaminants in the environment at the near Caspian territory of the Russian Federation include:
- emissions into the atmosphere of pollutants by stationary objects of economic activity and transport means,
- oil contaminated soil in places of oil and gas extraction,
- oil production waste dumps and abandoned sites of oil and gas industry,
- illegal and uncontrolled landfills of municipal and industrial waste,
- storm-drainage runoff from urban areas and production objects of industrial and agricultural activity,
- leakages and accidents at pipelines, as well as pollution resulted from the transfer of polluting substances through the atmospheric air.

In 2008, total volume of emissions of pollutants into the atmospheric air from stationary sources and motor vehicles in the Caspian area of the country amounted to 457.48 thousand tons. Pollutant emissions from the stationary sources was 148.7 thousand tons (or 32.5 % of total emissions), and in that volume the share of OOO “Astrakhangasprom” was 67.8% of the emissions of pollutants.

There should be noted the continuing trend of growth of the atmospheric air pollution from mobile sources of pollution, primarily as a result of the traffic intensification. For example, in 2008, near motorways in the Republic of Dagestan, the MPC of harmful substances was more than 30%, while the average value for the Russian Federation was 2.9%.

In 2008 in connection with the introduction of new version of the sanitary-epidemiological rules and norms, set forth in a) SanPiN 2.2.1/2.1.1.1200 – 03 “Sanitary protection zones and sanitary classification of enterprises, buildings and other facilities” (registered in the Ministry of Justice of the Russian Federation, registration number 10995 of 25.01.08 ) and b) SanPiN 2.2.1/2.1.12361 – 08 Changes 1 to SanPiN “Sanitary protection zones and sanitary classification of enterprises, buildings and other facilities”, the number of the issued sanitary-epidemiological conclusions on the project study on the estimated size of the sanitary protection zone continued to increase. For example, in the Astrakhan region more than 40 million people live in the buffer zones of industrial enterprises.

**The Republic of Dagestan.**

The total emission of pollutants into the atmospheric air on the territory of the Republic in 2008 amounted to 148.5 thousand tons, including that from the stationary sources of pollution - 19.3 thousand tons (13 % of total emissions) and from motor vehicles - 129.2 tons (or 87 % of total emissions).

In comparison with 2007, the total emissions of the pollutants into the atmospheric air in 2008 decreased by 23.1 thousand tons, mainly due to the point sources (presumably the economic crisis had caused that significant emission reduce). In 2008 the extent of the pollutants removing from the stationary sources of pollutant emissions into atmospheric air was approximately 8.3% (2007 - 10.1 %). Mainly solids were removed.

Table 6 shows the dynamics of the pollutants emission into the atmospheric air in 2005-2008 in the Republic of Dagestan, in tons.

Table 6

<table>
<thead>
<tr>
<th>The dynamics of the pollutants emission into the atmospheric air</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total emission of pollutants into the atmospheric air - totally</td>
<td>157,2</td>
<td>171,6</td>
<td>171,6</td>
<td>148,5</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pollutants emission into the atmospheric air from</td>
<td>26,8</td>
<td>36,2</td>
<td>30,6</td>
<td>19,3</td>
</tr>
</tbody>
</table>
the stationary sources of pollution

In 2008 the priority list of the cities with very high level of air pollution, for which a comprehensive air pollution index (API) is equal to or greater than 14, included Makhachkala, where the main pollutants, that determined the high level of air pollution of the city, were suspended solids, benzopyrene, hydrogen fluoride and nitrogen dioxide.
The Republic of Kalmykia.

Total emissions of the harmful substances into the atmospheric air in 2008 in the whole country amounted to 37.3 thousand tons, of which 14.7% - emissions from the stationary sources, 85.3% - from the motor transport. The emission level of pollutants into the atmospheric air reduced in the Republic as a result of a transfer of turbine generators and turbo pumps for gas and the transfer of boilers from the liquid and solid fuels to natural gas (the emissions of nitrogen oxides, carbon monoxide, sulfur dioxide and soot were reduced).

Table 7 shows the trend in the emissions of pollutants into the atmospheric air in 2005-2008 in the Republic of Kalmykia, in thousand tons.

<table>
<thead>
<tr>
<th>Table 7. The dynamics of emission of pollutants into the atmospheric air</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>The total emission of pollutants in the air - totally</td>
<td>40,8</td>
<td>46,3</td>
<td>37,3</td>
<td>36,3</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emission of pollutants into the atmospheric air from the stationary pollution sources</td>
<td>2,8</td>
<td>8,1</td>
<td>5,5</td>
<td>4,3</td>
</tr>
<tr>
<td>Emission of pollutants into the atmospheric air by motor transport</td>
<td>38,0</td>
<td>38,2</td>
<td>31,8</td>
<td>32,0</td>
</tr>
</tbody>
</table>

Astrakhan region.

The total emission of pollutants into the atmospheric air from the stationary sources and motor transport in the Astrakhan region in 2008 amounted to 270 thousand tons, including those from the stationary sources of pollution - 125.13 thousand tons (46.5 % of the total emissions) and from motor transport - 144.24 million tons (or 53.5 % of the total emissions).

In comparison with 2007, the volume of emissions from the stationary sources into the atmospheric air decreased for 3.67 million tons in 2008. As a result of the lower production activity of the OOO “Astrakhangasprom” there was a reduce in the emissions of pollutants into the atmospheric air from the stationary sources of pollution in comparison with the previous year and amounted to 4.9 million tons.

The extent of the pollutants removal from the stationary sources of air pollution in 2008 was approximately 14% (in 2007 it was 11.6 %).

Table 8 shows the dynamics of emission of polluting substances into the atmospheric air in 2005-2008 in the Astrakhan region, thousand tons.
Table 8. Emission of pollutants into the atmospheric air

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>The total emission of pollutants into</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the atmospheric air - totally</td>
<td>273,4</td>
<td>273,8</td>
<td>298,4</td>
<td>269,37</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stationary sources of pollution</td>
<td>131,3</td>
<td>117,3</td>
<td>128,8</td>
<td>125,1</td>
</tr>
<tr>
<td>of which –</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OOO “Astrakhangasprom”</td>
<td>-</td>
<td>96,1</td>
<td>105,0</td>
<td>100,1</td>
</tr>
<tr>
<td>Motor transport</td>
<td>142,1</td>
<td>156,5</td>
<td>169,6</td>
<td>144,24</td>
</tr>
</tbody>
</table>

Transboundary transport of pollutants.

One of the sources of pollution is a transboundary transport of contaminants through the atmospheric air. For example, according to the data of the Program for Monitoring and Evaluation of the Long-distance Air Pollutants in Europe, carried out in the framework of the UNECE Convention on Long-range Transboundary Air Pollution on Long Distance, the transport of pollutants into the European territory of Russia (ETR) in 2008 was:

- Sulfur oxides (SOx) from all foreign sources - 736.7 thousand tons. Among the areas with the registered maximum total fallout of SOx (> 700 mg/m2/god) there was the territory of Dagestan, where the share of transboundary depositions of oxidised sulfur was 80-90%. The largest contribution to the transboundary fallout of SOx on ETR was made by Ukraine (234.2 thousand tons), Poland (72.0 th. tons), Turkey (40.8 th. tons) and Romania (37.7 th. tons);

- Fallout of nitrogen oxides with the density of 400-500 mg/sq.m/year affected the territory of the Republics of the North Caucasus. The largest share of the transboundary pollution of the total oxidized nitrogen fallout (> 80%) was noted in some Dagestan area bordering Azerbaijan. The main foreign sources of pollution were the following: Ukraine (84.3 th. tons), Poland (43.6 th. tons), Germany (37.7 th. tons) and the United Kingdom (1.2 th. tons);

- The share of NH3 fallout reached maximum values (> 80%) in a number of the frontier areas of the Astrakhan region. The main foreign sources were Kazakhstan (115.8 th. tons), Ukraine (40.5 th. tons), Belarus (31.6 th. tons) and Poland (23.4 th. tons);

- The share of the transboundary pollution by lead (40-50%) in the frontier areas of the Astrakhan region, in a part of the Republic of Kalmykia and Dagestan was 40-50%. Sources of income were: Kazakhstan (105 tones), Ukraine (61 tons), Poland (45 tons) and Turkey (25 tons);

- The maximum share of the transboundary component (> 80%) in the total fallout of mercury on ETR fell, *inter alia*, on the border areas of the Astrakhan region and the Republic of Dagestan; and on the territory of the Republic of Kalmykia it accounted to 70-80%. The biggest contribution to the transboundary pollution of ETR by mercury was made by Kazakhstan (1.6 tons), Ukraine (0.64 tons), Poland (0.48 tons), Turkey (0.44 m);

- Fallout of benz(a)pyrene was observed in several frontier regions of Dagestan;

- The largest share of the transboundary pollution by polychlorinated dibenzo-para-dioxins (> 90% of the total fallout) was recorded on the frontier areas of the Astrakhan region and Republics of Kalmykia and Dagestan. The main sources of those pollutants were in Ukraine, Turkey and Poland;

- Significant transboundary fallout of cadmium was observed on the part of Kalmykia and Dagestan territories.
Pollution from seabed activities (Article 8 of the Tehran Convention).

21a. The Russian legislation and administrative measures for its implementation, which require the prior written permission of the activities carried out on the bottom of the Caspian Sea.

According to Article 6 of the Federal Law “On the Continental Shelf of the Russian Federation”\(^{31}\) the federal authorities have broad powers to regulate exploitation of subsoil resources on the continental shelf. One of the major includes the establishment of the procedure for tenders (auctions) for the right to a site management on the continental shelf, the use of its mineral resources, including licensing, the development of relevant standards (regulations), the introduction of prohibitions, restrictions and special conditions for the use of the seabed and its natural resources in certain areas of the continental shelf in connection with the mineral resources development, as well as in the spawning sites of the living resources, etc. The exclusive right of the Russian Federation for the use of the continental shelf areas makes it possible to establish exploitation rules, which fully take into account the interests of the State. The continental shelf areas are transferred for the development to such persons, who, *ceteris paribus*, use the capabilities of the industry of the Russian Federation to the maximum extent.

The right to use the continental shelf appears upon receipt of a license issued on the basis of a competitive tender (auction). The license is issued by the federal executive authority on natural resources in consultation with the federal executive bodies for defense, for fisheries; for the defense sector - with the notice of the federal executive authorities on the border guard service, on science and technology policy, on customs, hydrometeorology and environmental monitoring.

A license for the use of the continental shelf subsoil, as compared with a license for the mineral resources management, should include additional information on: environmental support of the development, including the organization for the environmental monitoring, harmonized methods of compensation for the living resources damage, measures on prevention and elimination of emergency situations; insurance, conservation and removal of installations and facilities on the activity completion.

Also, the law of the Russian Federation “On Subsoil”\(^{32}\) provides restrictions on the use of natural resources in certain areas of the national security and the protection of the environment (Articles 3, 8.). A subsoil user must ensure “compliance with Item 7, i.e.: following the approved standards (norms, rules), regulating terms of protection of subsoil, atmospheric air, land, forests, water, as well as buildings and structures from the harmful effects of activity related to the use of natural resources” (Item 7 of Article 22).

The Water Code\(^{33}\) prohibits dumping nuclear materials and radioactive substances in the water bodies (Part 5 of Article 56). Article 61 also provides that “constructing, dredging, blasting, drilling and other activity, related to changing of the bed and banks of water bodies, their water protection areas, within the boundaries of the most valuable wetlands, shall be carried out in accordance with the requirements of the environmental legislation and the legislation on urban development”.

Pollution from Vessels (Article 9 of the Tehran Convention).

22a. National instruments to prevent, reduce and control pollution of the marine environment of the Caspian Sea from vessels, adopted taking into account international


One of the fundamental laws of the national maritime law of the Russian Federation, which regulates relations arising in connection with the marine pollution from vessels, is the “Merchant Shipping Code of the Russian Federation”\(^{34}\). It envisages that the liability for the damage resulted in oil pollution from vessels, as well as damage in connection with the maritime transportation of hazardous and harmful substances, is on the owner of a vessel (Articles 316 and 327).

It should also be noted that the Merchant Shipping Code imputes to the owners of vessels duty to provide insurance or other financial compensation for damage caused by oil pollution from vessels and damage in connection with the transportation of hazardous and harmful substances listed in Article 327 of the Merchant Shipping Code.

One of the main factors of the negative impact of oil and gas activities on the environment are accidents caused by a receipt of harmful substances by water bodies and other natural objects, with especially large negative impact of oil spills. Organizational and legal standards for the protection of the population, objects of industrial and social importance, as well as of the environment, against emergency situations of natural and technogenic character are established by the Federal Law “On Protection of Population and Territories from Emergency Situations of Natural and Technogenic Character”.

Federal Law “On the Exclusive Economic Zone of the Russian Federation”\(^{35}\) establishes that within its limits the Russian Federation exercises jurisdiction over the protection and conservation of the marine environment against contamination from all sources of pollution (Article 5). In this case, the competence of the Federal government bodies includes establishing of the legal regime in the areas of environmental emergencies and environmental disasters, providing immediate action to eliminate the consequences of accidents leading to pollution by oil and other substances than oil (Article 7). Furthermore, according to Article 31, in case of a collision of vessels, landing a vessel aground, maritime accident at exploring or developing of non-living resources, extracted in the exclusive economic zone, or actions to eliminate the consequences of such accidents, caused or likely to cause serious adverse effects, the Government of the Russian Federation in compliance with the international maritime law shall have the right to undertake the necessary measures proportionate to the actual or possible damage to protect the Russian coast or related interests (including fishing) against pollution or threat of pollution.

The national maritime law of the Russian Federation envisages the performance of the state environmental expertise for all types of economic activities in the internal waters, territorial sea, continental shelf and exclusive economic zone. Relationships in the field of environmental expertise are regulated by the Federal Law “On Environmental Expertise”.

The Water Code of the Russian Federation in the sphere of the state supervision of the use and protection of water bodies provides for the right to inspect, in accordance with established procedure, and, if necessary, to detain vessels (including foreign) and other floating facilities, which polluted marine water by oil, harmful substances, sewage or garbage or did not take the necessary measures to prevent such contamination of water bodies” (Item 5, part 5 of Article 36). The Government Decree related to “Regulations on the Implementation of the State Control and Supervision over the Use and Protection of Water Bodies”\(^{36}\) includes the corresponding normative. According to Item 9, at implementing the state control and supervision over the use and protection of water bodies, the state inspectors for control and supervision over the use and protection of water bodies have the right to: ... b) to inspect in accordance with established


procedure, and, if necessary, to detain vessels (including foreign) and other floating facilities, which polluted marine water by oil, harmful substances, sewage or garbage or did not take the necessary measures to prevent such contamination of water bodies.

**Pollution caused by dumping (Article 10 of the Tehran Convention).**

23a. The Russian legislation regulating the ban on discharge of wastes and other matter from vessels in the Caspian Sea.

According to the Water Code of the Russian Federation “Dumping to water bodies and burying the production and consumption waste in them, including decommissioned ships and other floating facilities (parts and mechanisms), are forbidden” (Item 1 of Article 56).

The establishment of the environmental regulations (standards) on pollutants content in the waste and other materials intended for disposal on the continental shelf, of the list of hazardous substances, waste and other materials banned for dumping on the continental shelf, the regulation and control of dumping of wastes and other materials is the responsibility of the state federal authorities (Part 25 of Article 6 of the Federal Law “On the Continental Shelf of the Russian Federation”). Article 34 of this Law envisages that “dumping of wastes and other materials is allowed under a permit issued by the federal executive authority in the field of environment and natural resources, in consultation with the federal authorities to be determined by the President of the Russian Federation, the Government of the Russian Federation, or with the notification of these bodies, as well as the notification of the Russian Federation constituent entities, the territories of which are adjacent to the area of the continental shelf, where it is supposed to conduct dumping”.

The similar provision is envisaged by the Federal Law “On the Internal Waters, Territorial Sea and Contiguous Zone of the Russian Federation” - “Dumping of Wastes and Other Materials, as well as Dumping of Harmful Substances in the Internal Waters and the Territorial Sea are Prohibited” (Item 2 of Article 37).

**Pollution from Other Human Activities (Article 11, Tehran Convention and draft Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities).**

24a. Activities related to exploration, extraction, processing and transportation of hydrocarbons in the Caspian coastal and marine areas.

Taking into account the status and perspectives for mineral resources base, as well as actual economic possibilities the basic directions for the development of oil and gas complex at the near Caspian coastal and water area include:
- stabilization of oil and gas extraction at earlier developed fields at the later stage of the development, mainly by using the methods of raw extraction intensification;
- reactivation of old and development of new oil and gas fields of local significance;
- establishment of facilities for oil processing to meet the growing local demands;
- development of large scale hydrocarbon resources at the Caspian Sea shelf;
- development of production and social infrastructure of oil-and-gas complex.

The oil and gas sector is commencing to significantly develop in the Russian part of the Caspian Sea region (within the considered scope). At the present time the following companies are granted licenses for search, explore and extract hydrocarbons in the Russian sector of the Caspian Sea – PC “OC LUKOIL” (central part of the Northern Caspian), LLC “Caspian Oil Company”, LLC “Caspian Oil and Gas Company” and others. At the same time the scale of the surveyed deposits
and, especially, expected resources of hydrocarbons are allowing to speak about the big perspectives for establishment of a bigger oil-and-gas complex in this region.
Over 150 organizations in the Republic of Dagestan have acting licenses for subsoil use, including 64 – for geological survey and extraction of oil and gas. The main part of their extraction in the Republic is expected to be provided through the intensification of use of acting and surveyed fields. The oil pipeline “Baku – Novorossiysk” of 274 km, and two gas pipelines “Mosdok – Kazi-Magomed” of 300 km and “Makat – Northern Caucasus” of 130 km are crossing the Republic of Dagestan. The significant adverse environmental impact is caused by leaks (accidents) taking place at the pipeline transport.

The oil extraction in the Republic of Kalmykia is performed at 23 oil, oil-and-gas and oil-and-gas condensate fields. In 15-30 km from the Caspian Sea coast there are 9 gas and oil-and-gas deposits. The sewage of the oil and gas extraction Department (OGED) after treatment is used for pressure increase in hydrocarbons extraction, while their excess is discharged to filtration fields.

24b. Existence of suspended wells and facilities in coastal and marine Caspian areas.

The Republic of Dagestan has the significant number of abandoned wells, including those located at the pasture land sin the coastal area within 300-700 m off the sea shore line, activities at which were completed in 1991-2002. In addition, according to the literature sources a big number of wells were drilled here, location of which could not be detected.

There was gryphon generating with penetration of oil, gas and annular waters reported for a number of wells. Partially the oil films with water are discharged into the sea through fault-channel, while the rest remains at the contaminated areas around wells.

In this area Trusts “Daggaz” and “Dagneft” carried out geological exploration activity in 1949-1953 in order to search for oil and gas. 17 wells were drilled. As a result of that work short-term flows of oil and gas of non-commercial importance were obtained in some wells. All of those wells were drilled outside of fuel-oil-contaminated areas and were liquidated in accordance with the instructions on subsoil protection. In 1968, due to the strengthening of the requirements on the environment protection a decree of the Council of Ministers of 23.09.68 № 759 “On Measures to Prevent Pollution of the Caspian Sea” was adopted. Pursuant to that Decree and to the directive of the Trust “Dagneft” of 29. 09.1971 № 284, the Izberbashsky UBR (drilling office) carried out another physical liquidation of the wells on the Berikay-Adji deposit.

At present the gryphons of oil, gas and deposit water have been generated again around the previously liquidated wells. This indicates that another physical liquidation of the well in the central part of the structure didn’t result in positive effect. After reviewing the status of the field exploration degree and the results of the latest geological surveys on the basis of available geological data, this area should be considered as an ecologically disaster zone, which requires a decision-making at the Republican level.

Oil exploration drilling in the North Caspian Sea was launched in 1999 on the area, licensed by “Oil Company “LUKOIL”. As a result of the exploration within the area of the Russian sector of the Caspian northern and middle aquatoria, “Oil Company “LUKOIL” identified and prepared for deep drilling 16 prospective structures, and 6 large oil and gas fields were discovered. In addition, in mid-2008, ООО “TsentrKaspneftegaz” by the first exploration well discovered a large oil and gas field on the “Tsentrnalnaya” structure, located in the central part of the middle Caspian Sea area on the border between Russia and Kazakhstan within the Russian sector.

It should be noted that in the Caspian area apart from “LUKOIL” other mining companies have licenses, namely, ОАО “Geotermneftegaz Energy”, ООО “Megatron NVK”, ООО “Petroresource”
and OOO “KNK”. Their license areas are generally small, and an extent of exploration, mainly geophysical, is insignificant.

24c. Environmentally safe technologies used for off-shore exploration, extraction, processing, and transportation of hydrocarbons in the Caspian coastal and marine areas.

At the present time in the Russian part of the Northern Caspian the technology of “zero discharge” is applied during the geological study, exploration and production of hydrocarbons – it’s when the discharge into the sea of household, industrial sewage and annular water, all production and consumption wastes is completely prohibited during drilling and use of wells. All types of solid and liquid wastes are transported for further processing on shore.

The “zero discharge” practice is common, for the first turn, at especially valuable for the conservation and reproduction of biological resources and environmentally vulnerable water areas of the Northern Caspian. In addition, all works on survey, extraction and transportation of hydrocarbons are prohibited at highly vulnerable and bio-sensitive parts of coastal and marine areas, as well as at spawning and feeding grounds of valuable marine fauna.

It should be noted that the ban is only cover the disposal of wastes into the marine environment, i.e. into the water and bottom sediments. It does not cover emissions into the atmosphere and pumping of liquid waste into the injection wells. Moreover, “zero discharge” does not exclude the discharge into the marine environment of water used for cooling of energy installments, as well as rock cuttings drilled out during passing the upper part of the well the open way.

At this stage “LUKOIL” claimed responsibility only for the collection and transportation of wastes. Drilling wastes utilization and neutralization drilling were carried out by specialized enterprises of the Company; at the stage of field development and hydrocarbons extraction the whole cycle, including collection, transportation and utilization of wastes will be fully performed by the Company itself.

During the reporting period activities under the regional socio-economic development programs and plans aimed at the substantial improvement of the situation with the wastes production and consumption, were carried out through, inter alia:
- reclamation of oil pits and sludge collectors, with collected oil containing waters, drill cuttings, and soil polluted with oil (oil products content in these pits is 30-400 g/kg);
- liquidation of all unauthorized dumps of production and consumption wastes with further provision of land reclamation (galvanic industry waste, mercury-containing waste, lead-acid batteries);
- development of progressive methods of solid domestic wastes sorting and disposal, construction of waste processing enterprises and environmentally friendly waste burning installations, as well as establishment of specialized sites for the collection and disposal of toxic wastes, including pesticides, toxic chemicals and other POPs.

25. National legislative base of and experience gained from measures to prevent, reduce and control pollution caused by land reclamation and associated coastal dredging and construction of dams in coastal and marine Caspian areas.

As compared to the previous reporting period, the legislation of the Russian Federation in this field didn’t change significantly. In the article 43 of the Federal Law “On the Protection of the Environment”, which regulates requirements in the field of the environment protection at meliorating of lands, operating of melioration systems and separately located hydrotechnical facilities, the words “the insurance of the water balance and economical use of water” were replaced by the words “protection of water bodies”.

26a. Characteristic of Russian legislative basis for the regulation of alien species introduction into the Caspian Sea, including on the prevention/control of introduction of alien species with ballast waters and/or other ways.

In comparison with the previous reporting period, the national legislation governing the introduction of alien species into the Caspian Sea, including the prevention/control of introducing of the alien species with ballast water and/or other ways, was not significantly changed and added.

Except the regulations, considered in the First National report, this sphere is also regulated by the Federal Law of the Russian Federation “On the Seaports of the Russian Federation and on Amendments to Certain Legislative Acts of the Russian Federation”37. It states that the activity on the prevention of pollution, compliance with the requirements for the use and protection of water bodies in a sea port is regulated by the State (Item 8 of Article 9). According to Article 11, the sea port administration cooperates with the authorized federal executive bodies on the implementation of the state port, customs, border, immigration, sanitary/quarantine, quarantine phytosanitary, veterinary, environmental and other forms of the state control and supervision at seaports, envisaged by the laws of the Russian Federation. It also governs the activities to prevent pollution of the seaport aquatoria by industrial and consumption wastes, sewage and (or) by oil-containing water, oil and other hazardous and (or) harmful to human health and (or) the environment and the elimination of consequences by such contamination.

27a-c. Availability of specialized studies on the biology of alien species, on their impact on biodiversity in general, on socio-economic consequences of the introduction of such species as well as on their ways of intrusion to the Caspian Sea. Monitoring programs of alien species introduction into the Caspian Sea and their development therein.

Specialized studies on biology of the alien species and their impacts on biodiversity in general, socio-economic consequences of introduction of such species, the ways of their introduction into the Caspian Sea as well as the monitoring programs on the alien species introduction into the Caspian Sea and their development in it, forms and institutions carrying out such monitoring, dissemination and use of the obtained information, were presented in the First National report and did not change in the reporting period.


28a. Existence in the Russian Federation of the relevant executive authorities and necessary infrastructure dealing with issues concerning the protection of human beings and the Caspian Sea marine environment against consequences of natural and anthropogenic/technogenic incidents.

In Russia within the frameworks of the Unified State System for Emergencies Prevention and Elimination (USSEPE) the functional subsystems for organization and coordination of activities of search and rescue services (both Russian and foreign) under the search and rescue of people and vessels, people and ships in distress at sea in the Russian Federation search and rescue regions and arrangement of works on prevention and elimination of oil and oil products spill in the sea from vessels and objects regardless of their departmental and national identity were established at the

Ministry of Transport of the Russian Federation (Federal Agency of Maritime and Riverine Transport). The detailed information was presented in the First National report.

28b. **Legislative instruments regulating issues related to the protection of people and marine environment of the Caspian Sea against natural and anthropogenic/technogenic disasters.**


The procedure of notification about the marine environment pollution is regulated by the Instruction on the Order for Notification on the Marine Environment Pollution[^43], MARPOL 73/78 and the International Safety Guide for Oil Tankers and Terminals.

29. **Existence of a relevant regulatory basis for preventing incidents connected with hazardous activities at the Caspian Sea.**

In the Russian Federation the legal regulation of emergency response and warning is based on the federal legislation and the legislation of the constituent entities of the Russian Federation. During the reporting period, the national legislation in this area have not changed and corresponds to the information included into the First National report.

30a. **Legislation of the Russian Federation regulating early warning systems for industrial accidents and environmental emergencies (See 28b).**

30(b-c). **Existing early warning system for industrial accidents and environmental emergencies. Systems of integral assessments of emergency risks connected with oil spills and other technogenic incidents.**

During the reporting period in the Russian Federation the functioning early warning system for industrial accidents and environmental emergencies, as well as the system of the integral assessment of emergency risks connected with oil spills and other technogenic incidents have not changed and the information on it is consistent with the information provided by in the First National report (2006-2007).

[^38]: Water Code of the Russian Federation of 03.06.2006 № 74-FZ (rev. of 19.06.2007 № 102-FZ).
[^43]: Instruction on Order for Notification on the Marine Environment Pollution”, endorsed by the MNR of Russia, Mintrans of Russia and Federal Committee of Fishing of the Russian Federation. Registered by the Ministry of Justice on 14.06.1994, reg. № 598.
30d. Incidents which took place in the reporting period for which response measures were undertaken.

During the reporting period, serious incidents, for which response measures were taken in the aquatoria washing the Russian coast of the Caspian Sea, were not registered.

31 (a-c). Providing and maintaining adequate preparedness for environmental emergencies, including the availability of appropriate equipment and qualified personnel to be involved in taking such measures in the event of environmental emergencies. Contingency plans against pollution on board ships, offshore installations, seaports and oil-processing facilities (Item 4 of Article 13 of the Tehran Convention and Article 9 of the Protocol on oil spills).

Data on oil pollution emergency plans of the Russian Federation for the Caspian Sea region, on the necessary infrastructure and technology to minimize damage from the use of oil installations, transportation of petroleum products and accidents on oil pipelines as a result, as well as staff development related to the implementation of relevant plans are consistent with the information provided in the First National report (2006-2007).


33. Rational use of biological resources of the Caspian Sea on the basis of the best scientific data available.

34a. Scientific institutions, which on a permanent basis are occupied with study and assessment of state of the Caspian biological resources.

Major scientific institutions occupied on the permanent basis with research and evaluation of the state of the Caspian biological resources include, inter alia:
- Caspian Research Institute of Fisheries (CaspNIRKh);
- All-Russian Research Institute of Fisheries and Oceanography (VNIRO);
- All-Russian Research Institute of Freshwater Fisheries (VNIIPRKh);
- Zoological Institute of the Russian Academy of Sciences;
- Water Problems Institute of Russian Academy of Sciences;
- Institute of Geography, Russian Academy of Sciences;
- A.N. Severtsov Institute of Ecology and Evolution, RAS (IEEEP RAS);
- Institute of Ecology of the Volga Basin, RAS (IEVB);
- Institute of Oceanology named after PP Shirshov, RAS (IORAS);
- Astrakhan State Technical University (Astrakhan State Technical University).

34b. Methods used for assessment of possible amounts of the Caspian Sea biological resources use and for identification of quotas for catchment/bagging.

In the context of the existing multi-species fishing without quota for the suggested fish species, the overfishing of fish stocks of these most valuable commercial species, which are the basis of the taking out in the Volga-Caspian fisheries basin, is possible.

Therefore, it was decided to establish the value of the total allowable catch (TAC) of the commercial fish species. Roach, bream, catfish, carp, pike are not included in the list of species of aquatic biological resources to fall under the total allowable catch. This, according to CaspNIRKh data, appears necessary to be done. To assess the status of stocks and the potential catch amount (the amount of the annual allowable catches - TACs) of sturgeon species and other cross-border
species (herring, sprat and seal) by each littoral state, it is necessary to strengthen scientific cooperation on the collection of biological materials to provide the basis for assessing the status of stocks and the amount of possible catch (TAC) of sturgeon by each Caspian state.

Stock evaluation and development of biological TAC substantiation become even more actual at present. The establishment of the TAC is extremely important, as it is the main lever for rational use of the fish stocks.

A directive, which lists the values of the allowed catch of marine biological resources that are not to be overfished, is issued by the Government of the Russian Federation annually.

According to the results of the 28th session of the Commission on Aquatic Bioresources of the Caspian Sea\(^4\), the Parties agreed to keep the quotas for the sturgeon species in 2008 at the level of 2007 in order to conserve the sturgeon stocks and taking account the results of scientific researches. The Islamic Republic of Iran reduced the allowable catch quota for 2008 by 10 tons. In 2008 the catch quotas for other species of sturgeon were maintained at the 2007 level for the Islamic Republic of Iran. It was also decided to establish a working group to prepare the TAC allocation methodology for national quotas on the basis of seven criteria agreed at the 27th meeting of the Commission.

\textbf{34c. General state of the Caspian biological resources and trends for its modification.}

Catches of sturgeon and other commercial species as compared to the information of the First National report didn’t change.

Table 10. Anchovy sprat commercial stock in the Caspian Sea

<table>
<thead>
<tr>
<th>Years</th>
<th>Commercial stock, thousand tons</th>
<th>Forecast, thousand tons</th>
<th>Actual catch, thousand tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>758,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>708,1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>623,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>660,4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>291,9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>186,6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>101,7</td>
<td>21,2</td>
<td>13,2</td>
</tr>
<tr>
<td>2005</td>
<td>179,1</td>
<td>8,2</td>
<td>6,7</td>
</tr>
<tr>
<td>2006</td>
<td>274,9</td>
<td>10,6</td>
<td>4,4</td>
</tr>
<tr>
<td>2007</td>
<td>314,4</td>
<td>12</td>
<td>14,1</td>
</tr>
<tr>
<td>2008</td>
<td>212,7</td>
<td>17,4</td>
<td>5,7</td>
</tr>
</tbody>
</table>

The bioresource potential of the Caspian Sea is determined by the status of its ecosystem as well as ecosystems of coast and influent rivers. In its turn, the status of the Caspian Sea ecosystem is determined by the combined effects of climatic and anthropogenic factors. The former include the level of the sea and the water content of the rivers. It was found that there is a direct correlation between the relative indicators of catches and the sea level. In modern conditions and in the short-

term perspective (10-20 years) nature/climatic factors will evolve favorably for the formation of bioresources. However, by the end of the twentieth century, the ecosystem of the Caspian Sea structure changed significantly at all trophy levels, in particular, because of introduction of the alien species and anthropogenic stress.

At present an increase in the proportion of adult fish in the populations of sturgeon is going on, primarily due to a sharp reduction of replenishment of juveniles from hatcheries.

On the whole, as compared with the First National report, the general status and trends in the biological resources of the Caspian Sea remained the same.

34d. **Impact of oil deposits development and marine transportation, including floating, pipelining and their operation, and other economic activities on the state of the Caspian marine bioresources.**

Every stage at industrial developing of marine oil and gas deposits is of potential danger to the marine biological resources of the Caspian Sea. For example, conducting a seismic survey is usually accompanied by loss of larvae and juveniles (up to 1% of the population), dissipation of commercial concentrations (up to 10 km), which interferes with fishing. Drilling of exploratory wells, constructing activity at the sea (platforms, pipelines, etc.) result in disturbance of environmental quality in the water column and on the bottom, the death of benthic organisms and degradation of food resources in the benthos; there are cases of disturbance of the commercial species migration. Industrial activity from platforms, operation of pipelines, the availability of the worked out facilities, materials and installations on the bottom impact the fishing aquatoria towards its reducing, impact the sea water pollution, bottom sediments and commercial organisms, prevent migration of commercial invertebrates on the bottom, make it difficult to fishing. The deterioration of the reproduction and migration conditions for the commercial species in spawning rivers may be due to the construction of pipelines on land. Tanker transport poses a potential threat of environmental violations by the introduction (invasion) of the alien species. The oil spill will result in a severe oil pollution of coastal and littoral zones, destruction or loss of commercial properties of target species and marine culture, termination of fishing activities with significant economic losses (up to hundreds of millions of dollars).

**Table 11**

Effects of oil spills and characteristics of the environmental impacts

<table>
<thead>
<tr>
<th>Categories of effects</th>
<th>Amount of oil spilled in tons</th>
<th>Brief characteristics of the effects and consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor</td>
<td>10</td>
<td>a) ecosystem restoration in less than 2 years; b) the impact on shoreline; c) the impact on wildlife was limited</td>
</tr>
<tr>
<td>Moderate</td>
<td>500</td>
<td>a) ecosystem restoration can vary from 2 to 5 years; b) not only the seashore was under the impact; c) wildlife was impacted significantly</td>
</tr>
</tbody>
</table>
| Severe | 10000 | a) ecosystem is unable to recover in 5 years;  
b) the impact undergone more than 100 m of coastline;  
c) the impact had about dire consequences for wildlife |

Constructing of hydrological facilities on the rivers of the basin also impacted the number of sturgeon. As a result of the construction of dams the way to a highly productive sturgeon spawning grounds was blocked and the very spawning grounds were flooded. This led to a reduction in the area of sturgeon spawning sites. On the Volga river beluga lost all the spawning sites, sturgeon lost 80% of such sites, and white salmon - 60%. White salmon, a unique delicacy fish, lost access to the natural spawning sites. Industrial and agricultural run-off pollution had a very negative impact on the aquatic biological resources of the Caspian basin.

The use of platform structures is important for the purposes of fishing: their use requires additional study of tissues of the commercial species for the presence of hydrocarbons and heavy metals in the specified nature conditions and for platforms of different operation duration. Studies on the composition, seral stages, biological diversity and fertility of fouling communities and fish communities at different stages of development are also required.

35a. Availability of legal instruments and mechanisms, for instance, such as specialized ecological/environmental fishery requirements related to hydrocarbons development and extraction.

The principles, on which the modern legislation related to the marine biological resources is based, are presented in the First National report.

In 1998, the Government of the Russian Federation adopted the Decree “On Partial Revision of the Legal Regime of the Protected Zone in the Northern Area of the Caspian Sea”[^45], according to which in the protected area it is permitted to conduct geological survey, exploration and extraction of hydrocarbons with account of the specific environmental and fisheries management requirements”.

The first document on “Special Environmental and Fisheries Management Requirements for the Exploration, Development and Extraction of Hydrocarbons in the Protected Zone in the Northern Part of the Caspian Sea” (hereinafter referred to “special requirements”), agreed with the State Committee of the Russian Federation and the Ministry of Agriculture and Food of the Russian Federation, were approved by the directive of the Ministry of Natural Resources of the Russian Federation № 211[^46]. The Decree was not registered in the Ministry of Justice of the Russian Federation and, therefore, some time later, was canceled by the Ministry of Natural Resources of the Russian Federation by the Decree № 124[^47]. The most important advantage of the Special requirements, adopted in 1998, was the formulation of the so-called principle of “zero discharge”. In accordance with those Requirements, for the first time in Russia a complete ban on sea dumping of domestic, industrial wastes and produced water, all kinds of industrial and consumer wastes, except for discharges from plants for desalination of sea water, as well as from the outer loop


cooling systems of power plants, was introduced. Moreover, all types of solid and liquid wastes must be transported ashore for further processing and disposal.

The principle of the “zero discharge” is actually followed by all oil and gas companies (and their contractors) working in the Northern area of the Caspian Sea. However, after the abolition of the Special requirements, adopted in 1998, this principle was not confirmed legally, thus the responsibility for its enforcement has not yet acquired the binding character. Adopted in 2005, the Special requirements were applied only to the three licensed area and were temporary, their validity expires in 2008.
35b. **Assessment in general of the state of major commercial species, as well as key species – indicators of ecosystem health, for instance, the Caspian seal population.**

As a result of instability in distribution of semi-anadromous fishes in the Northern Caspian the impact on the formation of the modern commercial stocks and catches conditions is observed, and changes in the hydrological regime of the sea result in a redistribution of fishing stocks into the eastern part of the Northern area of the Caspian Sea.

**Table 12.** Catchments in the Volga-Caspian region, th. tons

In the Volga-Caspian fisheries subarea most of the 2008 year generation of commercial stocks of semi-anadromous and freshwater fish was formed by the generation of 2004-2007, the reproduction of which took place in a low spring tide. Therefore, semi-anadromous fish stocks, especially of roach and perch, remained at a low level. Stocks of catfish, pike and small freshwater fish were stable, with a tendency to increase.

The Caspian seal, being an endemic species of the Caspian sea, is an indicator of the ecosystem of the Caspian Sea status.

**Table 13** Commercial resources of the seal in the Caspian Basin, th. specimens

<table>
<thead>
<tr>
<th>Years</th>
<th>Total stock, th. sp.</th>
<th>TAC for the basin, th. sp.</th>
<th>TAC for RF, th. sp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>394,8</td>
<td>18,0</td>
<td>9,14</td>
</tr>
<tr>
<td>2006</td>
<td>376,7</td>
<td>18,0</td>
<td>9,14</td>
</tr>
<tr>
<td>2007</td>
<td>370,0</td>
<td>18,0</td>
<td>9,14</td>
</tr>
<tr>
<td>2008</td>
<td>363,0</td>
<td>17,0</td>
<td>8,61</td>
</tr>
</tbody>
</table>

![Graph](https://via.placeholder.com/150)

**Fig. 1.** Occurrence of seals in the area of deeps over 100 m, %.
In 2008 the ice area increased to an average of 75% of the Northern Caspian sea by the time of breeding. The results of monitoring researches of the previous years showed that the Caspian seal population stabilized at the level of 350,000 specimens.

In general, the current assessment of the key commercial species status, as well as the major indicator species of the ecosystem, such as the Caspian seal population, corresponds to that in 2006-2007.

35c. **Measures undertaken by the Russian Federation to support and restore the commercially valuable species, in particular, sturgeons.**

The major activities and measures undertaken by the Russian Federation for the maintenance and restoration of valuable commercial species, including sturgeon, remained unchanged as compared to the First National report.

35d. **Scientific studies related to the methodology and risks of artificial reproduction of sturgeons and other Caspian species, in particular, on their genetic ‘pollution’.**

Leading scientific centers of the Russian Federation, which conduct research on the methodology and risks of artificial reproduction of the Caspian sturgeon and other species, in particular on their genetic “contamination”, were listed in the First National report. It also provided information on the main activities in this area.

35e. **Characteristics of the amounts and assessment of the efficiency of fry release into the Caspian Sea by the fishery enterprises of the Russian Federation.**

Since 2006 no actual calculation of the share of farm fish origin in the catches were conducted; theoretical data were: for beluga - 99.9%, sturgeon - 70%, white sturgeon - 50%. In the post-perestroika period, there was a sharp decline in reproduction; release of juveniles from hatcheries in Russia fell from 75 to 57 million specimens, and that was much more than in the other Caspian littoral states.

The main reasons that caused the reduction of artificial reproduction, were a decrease in the number and quality of the natural generation sires and poor material and technical base of the hatcheries. According to the Sevkaspvybvod Department data on the availability level of beluga and sturgeon sires at the hatcheries, in the last three years it was the lowest and reached 20-28% and 45-49% of the demand respectively.

36a. **Legal and administrative measures implemented in the Russian Federation to establish the admissible catches amounts, catchments control, as well as to prevent and counteract the illegal catchment of the Caspian Sea biological resources.**

Basic information about the executive authorities, whose mandate includes safety and protection of the marine biological resources of the Caspian Sea, was presented in the First National report of the Russian Federation.

In the legal sphere, in regard to fisheries, the fundamental legal act is the Federal law “On Fishing and Conservation of Aquatic Biological Resources”\(^{48}\).

---

With respect to the Caspian sturgeon the Decree of the Government of the Russian Federation “On Measures to Ensure Fulfillment of the Obligations of the Russian Federation under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, CITES, of March 3, 1973, Regarding Sturgeon Species” should be noted. It appointed the Administrative (Rosselkhoznadzor) and Scientific (Federal State Unitary Enterprise “All-Russian Scientific Research Institute of Fisheries and Oceanography”) authorities to ensure fulfillment of the obligations of Russia under the Convention regarding the sturgeon species.

Ministry of Agriculture of Russia adopted the Decree “On the Order for Implementation of Fishing Aimed at Fish Breeding, Reproduction and Acclimatization of Aquatic Biological Resources”. The Order established the fishing rules with regard to acclimatization of the aquatic biological resources and aimed at: (a) relocation of acclimatization objects to water bodies of fishery importance in order to: (1) create sustainable the commercial stocks of valuable species of aquatic biological resources, (2) improve feeding base of a water body of fishery importance; and (b) formation of broodstock of living aquatic resources. The above procedure envisages a reporting system for the period of the activity, and prescribes to submit reports: (1) on the data on catches - not later than the 18th and the 3rd days of each month respectively: to the Federal Service for Veterinary and Phytosanitary Surveillance, and (2) on the activity results - within one month after completion of the activity: to the Federal Agency for Fisheries.

In the Russian Federation, the moratorium on the commercial sturgeon fishing was introduced gradually in the following order. First, the order of the Federal Agency of Fishing “On Measures for Regulation of Fishing of the Aquatic Biological Resources for 2000” (concerning fishing objects and areas) banned fishing for beluga in the Caspian Basin. Withdrawal of beluga was allowed for artificial reproduction and research purposes only. Then, in 2005, the commercial catch of sturgeon and stellate sturgeon was suspended in the Volga-Caspian fishing basin in compliance with the Resolution of the Government of the Russian Federation.

The President of the Russian Federation signed the Law related to the liquidation of confiscated fish, including sturgeon species, taken in violation of the laws of the Russian Federation. The implementation of this law allowed to eliminate the economic basis for poaching and thereby to conserve and increase stocks of the sturgeon species in the Caspian Sea. The Decree of the Government of the Russian Federation “On Measures to Implement Article 54 of the Federal Law “On Fishing and Conservation of Aquatic Biological Resources” made a number of amendments. According to the changes introduced into the Federal law “On Fishing and Conservation of Aquatic Biological Resources” the aquatic resources, gratis seized or confiscated and related to sturgeon, salmon fish species, crabs, including Echinocerus derjugini, scallops, sea cucumbers, sea urchins, are to be returned to their habitat. If their physical health does not allow to return them to their habitat, they should be immediately exterminated. The products from such aquatic bioresources, including caviar, should also be exterminated. Other aquatic resources and their by-products, gratis seized or confiscated, should be sold or exterminated.

---


50 Decree of the Ministry of Agriculture of Russia “On the Order for Implementation of Fishing Aimed at Fish Breeding, Reproduction and Acclimatization of Aquatic Biological Resources” of 25.04.2006 № 125.


**36b. Assessment of the state of natural spawning sites of the Caspian sturgeons. Measures undertaken for their melioration and their effectiveness.**

The sturgeons natural spawning grounds currently existing in the Lower Volga provide for the conservation of the genebank of the Caspian sturgeon species.

<table>
<thead>
<tr>
<th>Table 14 Natural and artificial sturgeon spawning sites in the Volga river</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names of spawning ridges</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Upper zone</strong></td>
</tr>
<tr>
<td>Near the spillway</td>
</tr>
<tr>
<td>Near the Tractor plant</td>
</tr>
<tr>
<td>Island Denezhny* area</td>
</tr>
<tr>
<td>Near the plant “Barrikady”</td>
</tr>
<tr>
<td>Near Volgograd fish hatchery</td>
</tr>
<tr>
<td>Near the Central stadium</td>
</tr>
<tr>
<td>Near the settlement “Elshanskoye”</td>
</tr>
<tr>
<td>Near the village “Tatyanka”</td>
</tr>
<tr>
<td><strong>Middle zone</strong></td>
</tr>
<tr>
<td>Near the village “Svetly Yar”</td>
</tr>
<tr>
<td>In the river “Dubovka” arm</td>
</tr>
<tr>
<td>Near the village “Kamenny Yar”</td>
</tr>
<tr>
<td><strong>The lower zone</strong></td>
</tr>
<tr>
<td>Near the village “Cherny Yar”</td>
</tr>
<tr>
<td>Near the settlement “Tsagan-Aman”*</td>
</tr>
<tr>
<td>Near the village “Seroglozovka”</td>
</tr>
<tr>
<td><strong>Totally</strong></td>
</tr>
</tbody>
</table>

* Note: Artificial ridges
37. Use of selective fishing gear and practices that minimize waste in the catch of target species and that minimize by-catch of non-target species; legislative framework, relevant methods and results of their application.

As a whole, as compared to the First National report, the general trend in the activities on the promotion and development of selective fishing means and practices, that minimize losses in the catch of the target species and non-target species at fishing, remained the same. Fishing in the Volga-Caspian region is traditionally is carried out in the upper zone, the delta and shallow waters of river mouth (avandelta) at the stationary fishing sites. In 2006-2008 fishing was carried out by 80 organizations that involved 5,000 fishermen.

38a. Caspian species, which are considered in Russia as endemics, rare and endangered, as well as methods for their protection, conservation, and restoration.

A detailed description of the Caspian species considered in the Russian Federation as endemic, rare and endangered, and the information on methods for their protection, conservation and restoration was presented in the First National report.

In the Russian Federation scientific and experimental Complex for molecular genetic studies was built and launched its activity under the Center “BIOS”, Astrakhan. Its main directions of activity are the following:
- Development of methods of fish and agricultural raw materials and food products quality control;
- Creating genetic passports;
- Identification of genetic disease at an early stage of progression;
- Diagnostics of infectious diseases;
- A study of the fish genome by the presence of productive quality in order to find solutions for the selection tasks on the basis of the “BIOS” Center, Astrakhan, under the scientific/experimental Complex.

38c. Focus areas of practical activity carried out by the Russian Federation to protect and restore rare and endangered biological species of the Caspian sea.

Taking into the consideration the critical status of the sturgeon populations in the Caspian basin and aiming at the conservation of the spawning parts of beluga, sturgeon and stellate sturgeon, the Federal Agency of Fishing issued the Order “On Measures for Regulation of Fishing of the Aquatic Biological Resources for 2000”.55. The Order banned fishing for beluga in the Caspian Sea. Withdrawal of beluga was allowed for the purposes of reproduction and research only. According to the Decree of the Government of the Russian Federation “On Approval of the Total Volume of Quotas for Catchment (Harvesting) of the Aquatic Biological Resources”56, since 2005 commercial fishing of sturgeon and stellate sturgeon in the Volga-Caspian fisheries basin was suspended.

In comparison with the previous reporting period, the main directions of the practical activities, undertaken by the Russian Federation on the conservation and restoration of rare and endangered species of the Caspian Sea, remained unchanged.

38d. Monitoring of endangered species.

The Program of Production Environmental Monitoring in the North Caspian Sea includes, as an independent direction, ecological and fishery monitoring. Its implementation is regulated by the Federal Law “On Fauna”. Implementation of environmental and fisheries monitoring is focused on the priority of conservation of biological resources and maintaining of fishing capacity of the Volga- Caspian basin, biodiversity of the Northern area of the Caspian sea at oil/gas raw materials developing in this part of the Sea. Detailed information about the Program, as well as the Block-diagram of ecological and fishery monitoring were presented in the First National report.

In 2008 the stage of exploration and prospect evaluation survey to determine hydrocarbon reserves was completed with a subsequent transition to the commercial development of the explored volumes of raw hydrocarbon deposits.

The updated program of the environmental and fishing monitoring was to correspond to the new stage of development of offshore oil and gas fields. It included a scheme of field development, exploitation and transportation of raw materials.

Three main types of offshore oil and gas fields development monitoring were distinguished:
- Background real-time monitoring of intact areas with limited or prohibited business activities;
- Local;
- Regional.

The background real-time monitoring in regard to the North Caspian Sea area, which has great variability, should be carried out at least twice a year (in summer and autumn).

39a. Measures taken by the Russian Federation to ensure conservation of rare species and vulnerable ecosystems of the Caspian, including information on specially protected land/water areas.

Key measures on biological diversity conservation, undertaken in the Russian Federation to ensure the maintenance of rare species and fragile the Caspian Sea ecosystems, including information on protected areas/aquatoria, were described in the First National report and didn’t change significantly during the period under consideration.

39b. Characteristics of the specially protected areas status, existing in the Russian territory of the Caspian Sea, with indication of their status dynamics during the reporting period.

Status of the network of existing PAs coastal littoral regions of the Russian Federation, which are characterized as formed in the basis and covers most of the diversity of landscapes and places the existence of protected species has not changed its status in the reporting period compared with the first national report.

39c. Banks of genetic data for key endangered Caspian species.

Information about the genetic data banks for the key endangered Caspian species, including the Russian National Collection of genetic benchmark materials of sturgeon (VNIRO), the regional benchmark collection of genetic materials of the Caspian sturgeon species (CaspNIRKh) and the collection of live sturgeon (“BIOS” under CaspNIRKh) was presented in the First National report.

As of 01.01.2008 the protected areas and objects occupied 28.6 ha. The solution of problems of reproduction and conservation of biological resources of the Caspian Sea is ensured by the Federal Target program “South of Russia”. Thus, “CaspNIRKh” completed the construction of the reversed water supply installation for growing sturgeon fry and yearlings at the scientific experimental base “BIOS” in the Ikrianoye village.

By its Decree the Government of the Russian Federation approved the Concept of the Federal Target program “Increasing the Efficiency of Usage and Development of the Resource Potential of Fishery Complex in 2009-2013”57. The State capital investments were to be spent on the construction and reconstruction of facilities for the reproduction of the aquatic biological resources, for research/production centers for elaboration of aqua- and mariculture technologies (in terms of conservation and reproduction of the aquatic biological resources), berths for fish terminals at sea ports in the Russian Federation, construction of scientific research vessels, ships to be used for the reproduction of the aquatic biological resources, for the ensuring of the state control in the sphere of water resources protection. Currently, active implementation of the Concept is going on; the construction of fishing vessels, patrol boats, motor boats and small vessels for the protection of water resources has been launched.

39e. Information on adoption and application in the Russian Federation of ecosystem approach to the Caspian Sea and its inclusion into the relevant national plans/programmes and strategies.

Biological diversity conservation issues are included into the thematic of rational use of the Caspian Sea bioresources as the “natural” ground for this sphere of activity, which is economically important and directly dealing with the interests of population in coastal areas.

The ecosystem approach to fisheries management in the Caspian Sea is associated with the development of the biological resources potential, the maintenance of populations of the commercial species at the levels that can ensure the maximum sustainable catches, with the environmental factors that determine these processes. In the framework of the Commission on the Aquatic Bioresources, the aquatic resources management takes into account ecological and geographical unity of the Caspian Sea, the necessity of the main target species habitats conservation and of the normal operation of the offshore and coastal ecosystems of the Caspian Sea.

Coastal zone management (Article 15, Tehran Convention, draft Biological Diversity Conservation Protocol and draft Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities (Article 10).

41a. Development and implementation of national strategies and plans for planning and management of the land affected by proximity to the sea, in order to provide a mechanism for biodiversity conservation, protected area management and sustainable and rational use of biological resources.

The primary task of the Caspian region ICZM is adaptation of coastal socio-economic complexes

---

to oscillations of natural conditions (including the sea level fluctuations), which formed and supported the uniqueness of its biodiversity and commercial significance of bioresources. This requires adequate management of the coastal environment, which is understood as the regulation of anthropogenic (technogenic) impacts on the state of the ecosystems grounded with data of monitoring and prognosis of development of situation.
Activities related to the ICZM implementation was carried out, mainly, in the framework of Federal and regional programs, referred to in section 6b. The key areas were listed in the First National report. In addition to those directions, the creation of the engineer infrastructure for the resort complexes “Turali” and “Kolichi” (Karabudakhkensky area) was started in the Republic of Dagestan in 2008. That included reconstruction of roads, construction of gas, water, sewage treatment plants, shore protection works (FTP “South of Russia” for 2008-2011).

41b. Natural and anthropogenic factors causing the most negative impact on the coastal areas of the Caspian region of the Russian Federation.

The sea level fluctuations are one of the main factors of adverse impact of the coastal areas of the Caspian region of Russia. Changes in the Caspian sea level resulted in transformation of the coastal landscapes, reduction in number and diversity of bird species in the Volga delta region on the most vulnerable areas of wetlands; the sea level rise led to changes in a variety of large geosystems on the Dagestan coast and relict delta ecosystems of the North-West of the Caspian Sea. The sea level fluctuations negatively effected economic activity in the coastal zone (the flush impurities, destruction of infrastructure, etc.)

Land degradation and desertification of areas cause the depletion of biological resources and are also a negative factor that contributes to the degradation of the various sectors of the coastal zone economy.

41c. Coastal areas as independent object of management in the system of the state management.

The coastal areas are not considered as an independent object within the state nature management system due to low efficiency of measures aimed at rationalization of the nature use in coastal areas of the Russian seas, including the Caspian Sea.

41d. Measures undertaken in the Russian Federation aimed at the environmentally sustainable development of coastal areas, including combating desertification/land degradation, deforestation.

FTP “Conservation and Restoration of Soil Fertility of Agricultural Land and Agricultural Landscapes as the National Heritage of Russia for 2006-2010 and for the Period up to 2012” envisages the development of the second phase of the “General Scheme to Combat Desertification and Land Degradation of Chernye Zemli (Black soils) and Kizlyar pastures up to 2020”. It also covers the territories of neighboring regions, as, according to the VNIALMI data (materials of satellite imagery interpretation, Volgograd city), the area of open sands in Kalmykia is 126.2 thousand hectares, the area of strongly exhausted and degraded soils reaches 436.3 thousand hectares and medium exhausted - 1605, 2 thousand hectares. Also, in order to eliminate the negative processes in the region, to address many social problems, to improve supplies of meat and dairy products and to improve the ecological environment, it is necessary to conduct phytomeliorative measures and irrigation of pastures.

One of the key factors to ensure the reproduction of soil fertility in the Astrakhan region is irrigation amelioration, technical and anti-erosion works in combination with agrochemical, agro-
forest-amelioration and other activities, including water supply systems, irrigation, drainage of inland fishery ponds, installation of drip irrigation equipment.

Drip irrigation system for cultivation of vegetables and potatoes was widely used in Axhtubinsk, Kamyzyaksky, Volodarsky, Krasnoyarsk, Volga, Liman and Chernoyarskaya areas.

As part of the Target Program “Conservation and Restoration of Soil Fertility of Agricultural Land in the Astrakhan Region in 2007-2010”58 the agrochemical and eco-toxicological examination of soils, agroforestry arrangement of agricultural land, the construction of anti-erosion hydrotechnical facilities were carried out.

The activity on combating desertification and land degradation in the Republics of Kalmykia and Dagestan and the Astrakhan region was carried out under the General Scheme to Combat Desertification, which was realized by 32% due to poor funding.

The Forestry Department of the Ministry of Natural Resources and the Environment Protection of the Republic of Kalmykia, in accordance with the assigned mandate, carries out activities on: the forests reproduction, protection, conservation and maintenance of their protective properties, stabilization of the open sands, as well as on the control over the quality of fire protection and other activities carried out by forest users (tenants) in Kalmykia, including economic enterprises (RGUP) and forest ranger stations.

Reforestation was conducted on 1,150 hectares, with the state contract - 1200 ha. The activity was carried out in accordance with the time schedules of the forest ranger stations. The quality of the work was satisfactory. Sanitary and recreational activities were carried out on 424 ha.

One of the major environmental measures is the environmental compliance with special regime of economic activities in the coastal area of the sea and its aquatoria.

41e. Principles of integrated management that ensure realization of multipurpose utilization of marine and coastal natural resources, including management of wetlands connected with the Caspian Sea.

The principles of integrated management, allowing to ensure realization of multipurpose use of marine and coastal natural resources, including management of wetlands connected with the Caspian Sea and being realized in the Russian Federation, were presented in the First National report. They were not changed during the reporting period.

The Caspian Sea level fluctuation.
(Article 16 of the Tehran Convention).

43a. Scientific studies undertaken in Russia to form the forecast of the Caspian Sea level regime in a mid-term and long-term perspective.

The changes in the regional climate indicators, connected with the Caspian Sea level, were investigated. There was a reduction in the annual amount of precipitation that fell over the sea. The HMS data (Makhachkala city) for 1900-2000 showed significant values (P = 0.99): correlation coefficients \( r = -0.5 \) and \( r = 0.5 \) were obtained for the indicators “precipitation-years” and “the level of the Caspian Sea-precipitation” respectively.

---

Three periods of changes in the Caspian Sea level with further changes in the qualitative and quantitative composition of the aquatic communities were observed. The first period - before 1933 - was the period of relative stability of the sea level; 1933-1978 was the period of the level lowering at filling water storage reservoirs; the third period – starting from 1978 - the period of oscillatory motion with the final level rise (Institute of Water Problems, Russian Academy of Sciences).

A comprehensive environmental monitoring of the marine ecosystems in the areas of current and expected extraction and transportation of hydrocarbons was carried out. The Caspian Sea GIS was created, diagnostics of the composition and distribution of petroleum hydrocarbons of various types of the Caspian Sea waters was run on the basis of the industrial environmental monitoring.

A methodology on the use of satellite surveillance in the system of integrated environmental monitoring of the marine regions, involved in the development of the oil/gas industry, was elaborated. The changes in the environment and climate parameters (the Caspian Sea) were investigated (Institute of Oceanology, Russian Academy of Sciences).

An impact of the sea level fluctuations on biological diversity was examined. It was shown that at any level it did not go beyond secular fluctuations and could be considered as normal. The risk of loss of any species at the current level of economic impact is, most likely, negligible (“All-Russian Society for the Nature Protection”).

43c. **Peculiarity of the Caspian sea level regime included in the environmental legislation of the Russian Federation.**

A number of changes were introduced into the legislation. Thus, Part 6 of Article 65 of the Water Code of the Russian Federation
d, determining water and coastal protection zones, was supplemented with the following sentence: “The width of the water protection zone of a water storage reservoir, located on the watercourse, is set equal to the width of the water protection zone of a watercourse”; the word “location” was excluded from the provision of Part 16, and part 18 was worded as follows: “18. The determination of the boundaries of water protection zones and borders of the coastal protection strips of water bodies on the area, including through special information signs, shall be carried out in the manner prescribed by the Government of the Russian Federation”.

Item 4 of Article 5 of the Water Code defines the coastline (the boundary of a water body) without taking into account the specifics of the Caspian Sea. The Code defines the shoreline: (1) of a sea – along the constant level-line of water, and in case of its periodic change – at the maximum low tide line; and (2) of ... a lake .... – along the average annual waters level at a time when they are not covered with ice. Obviously, none of the options of the shoreline definitions, envisaged by the Code, does not correspond to the ecological and geographical conditions of the Caspian Sea.

43d. **Consideration of the possible consequences scenarios of the Caspian level fluctuations in the coastal area management of the Russian Federation.**

Possible scenarios of the effects of the Caspian Sea level fluctuations, which are taken into account at the coastal zones managing in the Russian Federation, were presented in the First National report.

**Impact Assessment related to the Marine environment of the Caspian sea.**

---

44. (Article 17, Tehran Convention, Protocol on Environment Impact Assessment in a Transboundary Context, as well as draft Biological Diversity Conservation Protocol and draft Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities (Article 12)).

45a. Availability of legislation to carry out the environmental impact assessment of proposed activity in the Russian Federation, including EIA in a transboundary context.

In terms of increasing of economic activity scale, which could cause the adverse effects for the state of the Caspian marine environment, the availability of effective system of preventive control or environmental assessment of consequences of planned activities will be of high significance for the provision of the sustainable nature use and the environment protection.

A number of amendments were introduced into the legislation of the Russian Federation regulating the procedures of the environmental impact assessment of the proposed activity, which was elucidated in the National report for 2006-2007.

Thus, the Federal Law “On Revision of the Federal Law “On Environmental Expertise” and of Articles 49 and 54 of the Urban-Planning Code of the Russian Federation”60, elaborated by the Committee on Ecology of the State Duma of Russia in cooperation with the Ministry of Natural Resources and Environment, Rosprirodnadzor and Rostechnadzor, was adopted in 2008. The Law regulated the performance of the state environmental expertise on the lands of specially protected natural territories, defined a special regime, a list of necessary materials, its duration and procedure.

By the Federal Law of 30 December 2008 № 309- FZ “On Revision of Article 16 of the Federal Law “On the Protection of the Environment” and Certain Legislative Acts of the Russian Federation”61, there were introduced the following changes: documents on substantiation of the license for the collection, use, neutralization, transportation and disposal of hazardous waste - the main objects of the federal level expertise - were excluded from the list of such objects.

In accordance with the Decree of the Government of the Astrakhan region62 there was approved the administrative regulation of the Natural Resources and Environmental Protection Service of the Astrakhan region related to the implementation of the State expertise of forest development projects. It established duration and sequence of actions (administrative procedures) for the implementation of the State expertise of forest development projects.

45b. Projects that are likely to cause significant adverse effect on the marine environment of the Caspian Sea passed the EIA procedure.

In 2008 organization and implementation of the State environmental expertise were carried out by Rostechnadzor and its territorial bodies. In the Southern Federal District, which also includes the Republic of Dagestan, Kalmykia and the Astrakhan region, environmental expertise of documentation for 493 projects was conducted.

The Rostechnadzor Department in the Astrakhan region considered 77 objects of the environmental expertise. 47 objects of the State environmental expertise were submitted to the Division of

---

60 Federal Law “On Environmental Expertise” and of Articles 49 and 54 of the Urban-Planning Code of the Russian Federation” of 16.05.2008 № 75-FZ.
62 Decree of the Government of the Astrakhan region “On Administrative Regulation of the Natural Resources and Environmental Protection Service of the Astrakhan Region on the Provision of the State Services on Implementation of the State Expertise of Forest Development Projects” of 25.03.2008 № 126-P.
Environmental Expertise for consideration and 1 object was submitted for consideration from the previous period.

In 2008 the Division staff participated in 55 meetings of expert commissions of the State ecological expertise at the federal level. In 2008 the Department (together with the Department of Legal Support) elaborated drafts of the following normative legal acts and methodical documents: a decree of the Government of the Astrakhan region «On Approval of the Temporary Procedure for Issuance of Permits to Emit Harmful Substances (Pollutants) into the Atmospheric Air in the Astrakhan region»; the administrative regulation of the Natural Resources and Environmental Protection Service of the Astrakhan region which related to provision of the state service on issuing permits for pollutant emissions into the atmospheric air, etc.

During the reporting period, the State expertise was conducted for a number of projects on forest development:
1. A project on the forest development submitted by the tenant – OOO “LUKOIL-Nizhnevvolzhsk” (the use of forests for construction and operation of hydrotechnical structures of the bridge over the railway). On March 12, 2008, the project on the forest development got a positive conclusion.
2. A project on the forest development for construction and operation of hydrotechnical structure on the forest site, transferred on lease to OAO “Gazprom” (CSC “Gazpromstroyizhiniring” in the Krasnoyarsk district forestry, Vostochnodeltovy forest ranger station). On September 12, 2008, the forest development project got a positive conclusion.
3. A project on the forest development for recreational purposes on the forest site, transferred on lease to OOO “MAK” “AVIKA” in Zelenginsky district forestry (Vostochnodeltovy forest ranger station). On 14 November, 2008, it was sent back for a revision.

In 2008 there were adopted and approved the EIA documents for 6 subsoil users:
1. Environmental impact assessment at developing the career “Pibrezhny” site 1 and site 2 in Narimanov town in the Astrakhan region. Date of consideration - April 25, 2008.
3. Environmental impact assessment of the planned activity by MO “Selo Osypnoi Bugor” at developing ground career for their own needs, which located 1.4 km to the east from the village Osypnoi Bugor, Privolzhsky area, the Astrakhan region. Date of consideration – June 30, 2008.
4. Environmental impact assessment of the planned activity of MO “Stepnovsky selsoviet” at developing ground career for their own needs, which is located 0.5 km to the East of the Stepnoye settlement, the Krasnoyarsk area, the Astrakhan region. Date of consideration - July 8, 2008.
5. Environmental impact assessment of the planned activity of OOO “Posdvorie” to conduct fishery melioration (compensatory measures) near the settlement of “Stanya”, Kamzyaksky area, the Astrakhan region, with the soil usage for its own needs. Date of consideration - 16 May, 2008.
6. Environmental impact assessment at taking water from the drilling well for own needs: to provide water supply for a recreation enterprise OOO “Rybatskaya Krepot” in Chernoyarsky area, the Astrakhan region. Date of consideration – October 22, 2008.
45c. Results of the EIA in a transboundary context procedures for the planned activity in the near Caspian region of the Russian Federation performed during the reporting period.

Given the fact that the Russian Federation had no formal obligations in the field of EIA in a Transboundary Context, the environmental expertise of the economic activity projects under the jurisdiction of the Russian Federation was carried out in accordance with the national legislation, and transboundary impacts were not identified. The corresponding notifications from the Caspian states were not received in the period in question.

46. Description of the progress of the procedures, envisaged by the Protocol.

The Protocol on EIA in a Transboundary Context to the Tehran Convention was not signed.

Monitoring

47. Monitoring (Article 19, Tehran Convention, draft Biological Diversity Conservation Protocol (Article 9, Item 2.b) and draft Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities (Article 13, items 1.c and 2).

48a. Legislative and institutional base of the Russian Federation to establish individual/joint programs for monitoring of the marine environment state, its brief characteristic, including list and parameters of pollutants.

According to the legislation of the Russian Federation, the state monitoring of the marine environment status and pollution level is carried out by the territorial bodies of Roshydromet in compliance with the task, defined by its central office. The central office provides scientific and methodological support through scientific organizations and institutions, and allocate the state budget funding for expeditionary and analysis activities.

Currently, a peculiarity of the monitoring of the Caspian Sea marine environment in the coastal waters of the Russian Federation, is a combination of the state environmental monitoring, carried out by various agencies, and the industrial monitoring in the areas of exploration and development of the offshore hydrocarbon deposits.

The Federal Law “On the Protection of the Environment”63, which is in force in the Russian Federation, determines the environmental monitoring (or ecological monitoring) as the integrated system of “surveys of the state of the environment, assessment and forecasting of changes in the state of the environment resulting from the impact of natural and anthropogenic factors” (Item 29 of Article 1). The state environmental monitoring (the state ecological monitoring) is defined as monitoring of the environment carried out by the governmental authorities of the Russian Federation and governmental agencies of the constituent entities of the Russian Federation in compliance with their mandate (Item 30 of Article 1). The state environmental monitoring is carried out in accordance with the legislation of the Russian Federation and its constituent entities in order to monitor the environment status, including the environment status in the vicinity of sources of anthropogenic influence, and an impact of these sources on the environment, as well as to meet the needs of the state, businesses and individuals in the reliable information in order to prevent and (or) reduce the adverse effects of environmental changes (Article 63). The information obtained in the course of the state ecological monitoring is used to work out forecasts of socio-

---

economic development, elaborate federal programs in the field of environmental progress of the Russian Federation, target programs in the field of the environment protection in the constituent entities of the Russian Federation and measures to protect the environment. Brief description of the legal and institutional framework for the monitoring of the marine pollution as one of the Government functions was presented in the First National report (2006-2007).

48b. **National program for monitoring of the marine environment (brief characteristic, including areas of monitoring, periodicity of sampling and list of pollutants controlled).**

The program of industrial environmental monitoring, aiming to determine the extent to which companies-water users follow the water protection legislation with regard to the discharge of pollutants into the marine environment, was performed by OAO “LUKOIL”, one of the leading oil companies carrying out development activities in the Caspian Sea. Also the following activities were performed in this field: the program “Technology of Multilevel Regionally-adapted Ecological and Geodynamic Monitoring of the Caspian sea”, implemented by Non-commercial Partnership “Offshore Oil and Gas Technologies” (Institute of Oceanology named after P.P. Shirshov, RAS, Institute of Oil and Gas Problems, RAS); a component of the Caspian Environmental Monitoring Program with ISS capabilities, developed by the Institute of Geography, RAS. New analytical methods and approaches to assess the marine environment status and to analyze impact of oil and gas activities on its components were elaborated and put into practice of the industrial environmental monitoring.

Information about the stations, at which the relevant units of Roshydromet conducts monitoring of the Caspian Sea marine environment status, as well as the marine environment monitoring parameters were presented in the First National report.

In March-May 2008 the FSI “GOIN” undertook field research in the central and western regions of the Northern area of the Caspian sea. Water samples were taken from the surface and bottom layers. Water salinity in the observations area (Northern part of the Caspian sea) ranged from 0.28 to 7.89 %. Maximum value was registered at the farthest from the shore station with a depth of 13.5 m. Values of pH reached 8,26-8,98. The number of easily degradable organic substances according to BOD5 varied in the range 0,5-2,4 mg/cub. dm (1.3 mg/cub. dm). The maximum value was marked on the surface in the middle part of the incision made on the half way from the shore to the point of oil extraction.

### Table 15. Areas of the marine environment status monitoring

<table>
<thead>
<tr>
<th>Areas of monitoring</th>
<th>Petroleum hydrocarbons, MPC</th>
<th>Phenols, MPC</th>
<th>Water quality category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lopatin</td>
<td>1</td>
<td>3</td>
<td>“Moderately polluted”</td>
</tr>
<tr>
<td>Offshore zone of the Sulak river</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Offshore zone of the Terek river</td>
<td>1</td>
<td>4</td>
<td>“Contaminated”</td>
</tr>
<tr>
<td>Makhachkala city</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Kaspijsk city</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Izberbash city</td>
<td>0,8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Derbent city</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Offshore zone of the Samur river</td>
<td>0,8</td>
<td>5</td>
<td>“Moderately polluted”</td>
</tr>
</tbody>
</table>
The nutrient content in the Caspian Sea waters was within normal values for the spring season. Amount of phosphates increased sequentially from the central part of the area to the coast, reaching a maximum in the vicinity of the coastal zone. Silicate concentrations ranged from 0.028 to 0.420 mg/cub. dm in the surface layer and 0.042-0.437 mg/cub. dm - in the bottom layer. The maximum values were registered near the shore at the station with a depth of about 6 meters. The nitrogen content did not exceed the limits of mean values for the Northern Caspian Sea.

Concentration of petroleum hydrocarbons in the aquatoria in question ranged from zero to 0.13mg/cub. dm (2.6 MAC). The maximum was registered on the surface in the center of the North Caspian Sea aquatoria near the offshore drilling point.

The content of surfactants in the surface and bottom waters ranged from 10.0 to 170.0 mkg/cub. dm. The highest values were observed both in surface and bottom layers over almost the entire aquatoria.

The concentrations of volatile phenols were similar in the surface and bottom layers - from the detection limit – from less than 2.0 to 27.0 mgr/cub. dm. However, in the middle of the North Caspian Sea, near the point of oil extraction, the phenol concentration varied between 24,0 and 29,0 mkg/cub. dm in the surface layer, in the bottom layer – from 19,0 to 35,0 mkg/cub. dm, and closer to the shore, they were not identified in water at all stations.

The concentration of organochlorine pesticides (chlorobenzene, 4,4 -DDT, α- HCH and γ- HCH) was below the detection limit.

Most metals were more or less evenly distributed over the aquatoria in question. A significant increase in the concentration was observed for almost all metals, except lead, barium and mercury (the latter are defined on the sensitivity limit of the method) in the surface water at one station in the center of the North Caspian Sea near the point of oil extraction.

Oxygen regime parameters were within normal values for the spring season - percentage of saturation of those values for the surface layer of water was 112.0-162.0 %, and in the bottom layer - 93.6-130.7 %. Hydrogen sulfide was not found in the waters of the North Caspian Sea during the period of research.

**Water pollution in the open part of the Caspian Sea.** Significant changes in the oxygen regime of the marine waters, as compared with the previous years, were not observed. The concentration of ammonia nitrogen was below the MCL, the maximum content of total nitrogen was 1.47 MPC. Total phosphorus concentration was 16.9 mkg/l with maximum 27.8 mkg/l. The concentration of petroleum hydrocarbons varied between 0.6 and 2.2 MAC. Pollution of the waters by phenols remained at the same level. Index of pollutants (WPI) rose from 1.17 to 1.59. The open waters of the Caspian Sea in the incision the Chechen Island-the Mangishlak Peninsula changed qualitatively, and from the third category “moderately polluted” moved to the fourth – “contaminated”.

**Atmospheric air monitoring.**

Information about the monitoring network. Observations were made at 8 stationary posts (5 posts in Astrakhan city, 1 post in Narimanov city, 1 – in the Dosang settlement, 1 – in the Aksaraisky settlement) by the state environmental monitoring service.
Monitoring of water bodies

In 2008 observations of water pollution in the Lower Volga were carried out by hydro-chemical and hydro-biological parameters by the laboratory for monitoring of the of surface water pollution (Roshydromet territorial body, Astrakhan city) in 5 water courses: in the main channel of the Volga river between the village of Tsagaan-Amyan and the village of Ilyinka, in the Ahtub river arm - from the village of Selitrennoe to the village of Podchalayk, in the Buzan river arm - near the village of Krasny Yar, in the Krivaya Bolda river arm - upper the head of the Rychan inflow, and in the Kamyzyak river arm - near the Kamyzyak town.

Radiation monitoring

Observations on the radiation situation in the Astrakhan region were conducted by six (6) weather stations with the use of DKG-OZD “Grach” device.

48c. Participation of the Russian Federation in the regional co-operation to develop the regional monitoring program.

The Roshydromet experts together with representatives of Minprirody of Russia took an active part (as the members of the corresponding working group) in the preparation of a draft regional environmental monitoring program (EMP) for the Caspian Sea. At preparing the program they used the results of the previous projects on the Caspian Sea: “The Caspian Environment Program” and a draft of the TACIS program, implemented in 2006-2009. The major role in the implementation of the Regional Program of Environmental Monitoring of the Caspian Sea, especially in regard to the monitoring of hydrometeorological characteristics, was given to the potential contribution of the national hydrometeorological services.

48d. Intercalibration of the Russian chemical laboratories participating in the international and national monitoring programs.

During 2006 - 2009 the Russian Federation participated in the development and implementation of activities under the EC/TACIS project “Caspian Water Quality Monitoring and Action Plan for Areas of Pollution Concern”, connected *inter alia* with the development of the proposals for the regional Caspian Sea water quality monitoring program. Under this project the inter-calibration of concentration measurements of heavy metals, chlorinated hydrocarbons and radionuclides in sediments were carried out. Specially prepared samples were distributed among seven laboratories of the Caspian countries and three international monitoring laboratories. The results, obtained during the processing of those samples, were included into the relevant sections of the project report.

The Departmental laboratory LOOS OOO “Astrakhangazprom” conducted observations in 6 settlements at AGKM points.

The state laboratory “Astrakhan CHMS” measured 10 hazardous substances; the samples were taken by heavy metals and benzo(a)pyrene content and sent to the NPA “Typhoon”. The network operated in accordance with the requirements of RD 52. 04. 186-89.

48e. Developed and/or implemented monitoring program to assess habitats, population dynamics, landscapes, as well as human activity impact in specially protected land/water areas of the Caspian Sea.

Implementation of the state land monitoring is envisaged by the Land Code of the Russian Federation. Monitoring objects are all of the lands in the Russian Federation, regardless their
ownership, target and the permitted use. These functions were performed by the Federal Agency for Real Estate Cadastre. The list of the tasks of the state land monitoring includes: to reveal changes in the land status, to assess these changes, to make a prognosis and recommendations on the prevention and elimination of consequences of negative processes, to ensure information support for the state control over the land use and its protection, as well as to provide citizens with information on the status of the environment with regard to the lands.

Analysis of the state land monitoring data showed that the Southern Federal District (which includes the Russian Caspian area) was subjected to erosion (the process covered 24.3 % of the territory), more than half of the territory was subjected to the process of salinization, desertification was widely spread over the area. All that led to a loss of fertility of agricultural land and to removal of the land and pastures from the economic activity.

In 2008 at the expense of the federal budget the activity was carried out to study the processes of desertification in the Yashkul district of the Republic of Kalmikia and in the Astrakhan region (Narimanov district). The study showed that during the period in question in the Yashkul district the area, affected by strong desertification, decreased by 190 thousand hectares, and in the Narimanov district it increased by about 7 hectares. The area of land with an average degree of desertification in the Yashkul district increased by 180 thousand hectares, and in the Narimanov district decreased by 1 ha. A common feature for those two districts was the increase in the land area with a low degree of desertification: for 21 ha in the Yashkulsky district and for 6 ha in the Narimanov district.

Fisheries monitoring, conducted by CaspNIRKh, allows to predict the maintenance of high-level fish-stock potential of the Caspian Sea under the condition of decrease of the water contamination level and the effective protection of the biological resources.

The key functions of hydro-biological monitoring include the control over the hydrobionts distribution and the indicators of the initial product, an assessment of the fish feeding base and possibilities of mass development of commercial organisms.

Since microflora is a sensitive indicator of physiological condition of fishes and changes taking place in aquatic ecosystem, than the sanitary-microbiological monitoring of commercial fishes of the Volga-Caspian region performed by the CaspNIRKh evidences on the practical necessity in bacteriological control at all stages of work with hydrobionts – starting at the harvesting of raw material to the final products.

In order to analyze the situation in the selected test areas of the Caspian Sea the Russian Institute of Land and Ecosystems Monitoring developed a set of indicators of the Caspian Sea ecosystem status.

The general indices of the aquatic ecosystems state include:
- hydrological (Caspian level elevation marks; value of water flow of the Volga, Ural, Terek and other major rivers; value of solid runoff; hydrochemical composition of river and sea waters; hydro-biological composition of river waters; content of various pollutants in river flow and sea waters);
- biotic (biomass of plankton, macrozoobenthos, commercial fish stocks; number of species of plankton, benthos, fish; number of indicator organism forms; number of invasive hydrobionts; state of macrophytes; hydrobionts morphology; level of primary production, the incidence of fishes);
- relief (Caspian coasts and bed absolute elevation marks).
**Monitoring of alien species in the Caspian Sea (please refer to 27b).**

Industrial monitoring is also considers the impact of the effects of exploration and production of hydrocarbons in biota.

Determination of boundaries, degree and type of impact of production activity on the environment could be hampered with several circumstances. Heterogeneity pertinent to the environment in its scope may coincide with the heterogeneity caused by anthropogenic impact. For example, the duration of the prospection and exploration drilling (2-3 months) is approximately equal to the duration of the seasonal succession of plankton communities in the Northern Caspian, so that the natural changes in the species composition of the plankton can be interpreted as the result of the impact of drilling operations on the ecosystem of the Sea. To overcome this difficulty it is usually enough to increase the frequency of spatial and temporal observations, as anthropogenic and natural changes are easily distinguished from each other in the high-frequency area.

**48f. Assessment of the Caspian marine environment state, including the components of the marine environment included into such an assessment, and its periodicity.**

Assessment of the marine environment of the Caspian Sea status is carried out annually by FGBU “GOIN” on the basis of the state monitoring data of the Russian Federation, received from the Astrakhan and Dagestan CHMSs as well as in course of implementation of the specialized projects on the Caspian Sea research. The results of the data analysis followed by the corresponding assessments are published in the “Yearbook of the Marine Water Quality According to Hydrochemical Indicators” (FGBU “GOIN”) and are distributed as a monographic edition of the annual “Yearbook of Marine Water Quality by Hydrochemical Indicators”. It has both print and electronic format, which can be read in pdf format on the website of GOIN, as well as in the annual print publication “Overview of the Status and Pollution of the Environment in the Russian Federation” (IGCE).

The initial data of the state monitoring are included into the relational database “Hydrochemical Status and Pollution of the Seas of the Russian Federation”, developed by FGBU “GOIN” and placed on the website of the Institute in online access. Free access to the database via the Internet allows to obtain the initial raw data on the major hydro-chemical parameters, concentrations of biogenic elements and pollutants, as well as background administrative-management information on hydrochemical laboratories of the Roshydromet marine network.

**Research and development (Article 20 of the Tehran Convention ).**

**50. The conduct of research and development activities (NIOKR) on the said issues (including development of methods for assessing the toxicity of harmful substances and the study of the process of their impact on the ecosystem of the Caspian Sea, the development and application of the best available technologies, taking out of use and/or substitution of materials likely to cause pollution, the development of environmentally sound or safe methods of the hazardous substances disposal, the development of environmentally sound and safe techniques for drainage works and water regulation; assessment of the damage caused by pollution, improving the knowledge about the hydrological regime and ecosystem dynamics of the Caspian sea, studying the radiation and radioactivity levels in the Caspian sea).**

In 2008 the Russian Academy of Sciences research institutions and other organizations conducted the following researches, relevant to the Tehran Convention articles:
- Researches on alien species invasions. At present the species composition of the fauna of the Ponta-Caspian system was transformed by more than 10 % (Zoological Institute (ZIN). The sardelle appearance in the Volga water storage reservoirs resulted in a complete change in the structure of the fish population (Institute of Biology of Inland Waters after I.D. Papanin (IBIW RAS), Institute of Ecology and Evolution Problems after A.N. Severtsov (IEEP RAS)). Researches on the benthic ecosystems showed that as a result of the alien species invasion the marine communities structure changed radically (Institute of Oceanology after P.P. Shirshov (IO RAS)).

- Technologies in the field of the environment protection. The role of artificial reef structures in increasing of the self-cleaning ability of the sea in terms of oil pollution at extracting and transporting hydrocarbons was experimentally determined. It was shown that the artificial reefs contribute to collecting oil from the water surface and reducing the negative impact of petroleum hydrocarbons on the marine ecosystem (Caspian Institute of Biological Resources, Dagestan Scientific Center, Russian Academy of Sciences (PIBR DSC RAS)).

- Integrated environmental monitoring of the marine ecosystems in the areas of current and expected extraction and transportation of hydrocarbons. The Caspian Sea GIS was created, diagnostics of composition and distribution of petroleum hydrocarbons of various types in the Caspian Sea was conducted on the basis of the industrial environmental monitoring data (Institute of Oceanology after P.P. Shirshov (IO RAS)).

- The peculiarities of ecological/economic processes in the Republic of Dagestan were considered, the effect of the environmental factors on sustainable development was determined (Institute of Social and Economic Research of the Dagestan Scientific Center (ISEI DSC RAS)).

- Researches on the current status and scientific substantiation of methods and means for ensuring the sustainable operation of the water management complex in the Lower Volga river (GSPI RTV).

- Researches on the Chernye zelii area (Black Soils) under the international program “Dust and Salt Transfer from the Desertified Areas”. It was found that the natural environment of Kalmykia was the most sensitive to anthropogenic pressure; the pressure was stronger than in other regions of Russia and spread at a distance up to thousands kilometers. The method of sand fixation, used in the region, had no analogues in the world (Institute of Atmospheric Physics, Russian Academy of Sciences in collaboration with scientific organizations in Germany, Austria, South Africa, USA).

- Geoinformational monitoring of the water bodies in the Kuma-Manych depression and determination of resource potential of the adjacent areas. The aim of the study was an integrated geo-ecological assessment of artificial water bodies in the Kuma-Manych depression and ecotone (coastal) systems “water-land” along their coasts under the arid conditions of the Republic of Kalmykia. The lake of Manych Gudilo (the eastern part of the Proletarsky water stock reservoir), the Chograysky water stock reservoir, the Sostinsky water bodies (Lake Kirkita, Lake Zamokta) were selected as the key, the most representative, water bodies in the Kuma-Manych depression (Institute of Integrated Research of Arid Areas (IKIAT) of the Republic of Kalmykia).

- The study of the soil salinity degree. Soil samples were analyzed. At the landfill “Manich -1” all the analyzed soil samples (by the chemical composition) showed varying degrees of salinity on that object - from non-saline to strongly saline and saline fields. At the landfill “Manich -2” the salt composition of soils varied from non-saline to medium and strongly saline, and saline fields. In the course of the study 10 rather large cenopopulations were described. Activities of the current anthropogenic impacts on the territory of Kalmykia caused wide spreading of the landscapes with disturbed soil and vegetation. Those processes led to the reduction of soil
ecology, impoverishment of biological and landscape diversity, the reduce in sustainability of the natural ecosystems. Transformation of the morphological structure of the soil spatial organization was also inevitable (Institute of Integrated Research of Arid Areas (IKIAT) of the Republic of Kalmykia)).

- Monitoring of the current status of vegetation in the natural ecosystems in Kuma-Manych depression. The study objective: analysis and assessment of the current status of vegetation in the natural ecosystems in Kuma-Manych depression and the development of recommendations for their rational management. A characteristic feature of the soil in the study area is its pronounced complexity connected with the extensive development of micro-relief under the low atmospheric humidity conditions, where even a slight difference in the redistribution of precipitation has a significant impact on the vegetation cover, salinity regime and soil humification processes (Institute of Integrated Research of Arid Areas (IKIAT) of the Republic of Kalmykia)).

- The study of the pastures area status, which, in the recent years, were strongly affected by the irregular and unregulated grazing. In the last years, due to a significant reduction in the number of livestock, the pasture conditions in the studied area began to improve, which was undoubtedly connected with the processes of herbage self-regeneration. The process of desertification, which mostly occurred in sandy and sandy loam soils in the Caspian lowlands, on loamy soils in the Kuma-Manych depression (Priyutnensky and Iki-Burulsky areas of the country), affected the vegetation cover only, keeping the soil profile in the natural status. Now in this area of Kalmykia there is a natural regeneration dynamics of pasture ecosystems because of the reduced grazing pressure (Institute of Integrated Research of Arid Areas (IKIAT) of the Republic of Kalmykia)).

Exchange of and access to information.

53. (Article 21 of the Tehran Convention, the draft Protocol for the Protection of the Caspian Sea Against Pollution from Land-based Sources and Land-based Activities (Articles 14 and 15), the draft Protocol on Conservation of Biological Diversity (Articles 17 and 18), the Protocol on Environmental Impact Assessment In a Transboundary Context and the Protocol Concerning Regional Preparedness, Response and Co-operation in the event of Incidents of oil pollution (Article 6).

54a. Legislation of the Russian Federation envisaging the principle of free public access to information on the environment.

Article 42 of the Constitution of the Russian Federation among the main ecological rights guarantees everyone's right for accurate information about the status of the environment. The principle of observance of this right is one of the basic principles of the environment protection (Article 3 of the Federal Law “On the Environment Protection”\(^64\)).

In the current Russian legislation the definition of “environmental information” or “information on the status of the environment” and a list of the corresponding information, are not available at present. However, a common definition of “information” is contained in the Federal Law “On Information Technologies and the Protection of Information”\(^65\), according to which “information” is info (messages, data), regardless of its format.


The key federal laws, as well as provisions of certain legislative acts, envisaging and realizing the principle of free public access to the environmental information were presented in the First National report.

**54b. Institutional structures or mechanisms to ensure public access to information.**


The Ministry of Natural Resources and the Environmental Protection of the Republic of Dagestan carries out its activities in the field of environmental education, ecological consciousness formation, a qualitative change in the environmental public awareness on the principles of priority.

Since 2007 Minprirody of Dagestan began to elaborate concept on the environmental education, under which a program of the environmental education and awareness was later developed. The program was aimed at long-term activities and was differentiated into several components, which included a variety of the educational methods and technology of the information and propaganda impact on the population.

Along with that, the Ministry of Natural Resources performed the activities under the functional information management plan on the environmental activities.

Certain activity was carried out to design the electronic information resource - the website of the Dagestan Ministry of Natural Resources. There was envisaged the organizational and financial base, which was necessary for issuing the newspaper apps “Ecology”. Public and private publications considered on their pages a wide range of issues, related to the problems in the field of nature management and the environment protection status. An important role in its activities the Ministry gave to the necessity of timely informing the public about the progress in the environmental situation in the country.

Within the framework of the ecological education and information Program “Zabota” (“CARE”) a group of ecologists undertook measures to improve the sanitary conditions of the lookout on the Mountain Tarki-Tau with active participation of the students of the environmental DSU faculty. The event was elucidated by the RGVK TV channel “Dagestan”.

In cooperation with the Buinaskkii interdistrict Committee on Environment and Nature Resources Management an ecological event on putting in order the area adjacent to the monument of nature “Cavalier battery” took place. The information about the event was elucidated in the local mass media, including TV.

As a part of activities connected with the Day of the Caspian Sea, August 12, 2008, Astrakhan, a round table “The public for protection of the marine environment of the Caspian Sea” was held with public and stakeholders participating in it. In the course of the event, discussions on the role
and mechanisms of public participation at implementing the Tehran Convention under the auspices of the Ministry of Natural Resources and Environment of the Russian Federation, the Government of the Astrakhan region and the Tehran Convention took place. Public organizations of Turkmenistan, Kazakhstan and the Caspian region constituent entities of the Russian Federation presented and discussed information on the protection of the environment, with particular attention to the experience and problems of public participation in identifying and solving environmental problems of the Caspian Sea, on the role and forms of government and international support for such NGO activities.

In addition, there was a discussion on the “Strategy for the Russian public involvement in the implementation of the Tehran Convention”, presented by the organizers as a discussion document.

Following the meeting discussions, it was proposed to publish on a regular basis a booklet (newsletter) about NGOs activities on addressing the environmental problems of the Caspian Sea and holding NGOs meetings dedicated to the celebration of the “Day of the Caspian Sea”. The issue of financial support for environmental NGOs, including through the effective use of the Russian contributions to the international organizations as well as through the formation of environmental partnerships “the public - business - power” was noted.


The State Report “On the Status and Protection of the Environment of the Russian Federation in 2008” was developed to provide the governmental executive bodies, scientific, public organizations and population of Russia with the objective systematized information on the quality of the environment, the status of natural resources and trends in their changes, measures undertaken to reduce the adverse impact on the environment, they includes information about the ecological situation and environmental protection activities in the country and constituent entities of the Russian Federation.

The relevant sections provide analytical information about the quality of the environment and of natural resources status, the status of flora and fauna and the specially protected natural areas, about an impact of the environmental factors on the conservation of the cultural heritage, the impact of major economic and other activities on the environment, on environmental situation in the regions, on the state regulation of the environment and natural resources management.

The State report “On the Status of Natural Resources and Environmental Protection in the Astrakhan region in 2008” is the second release of the annual official document concerning the nature resources management and the environment protection. It was prepared in order to ensure realization of the transparency principle by the executive authorities of the Astrakhan region and following the constitutional rights of the citizens to a healthy environment. It was intended to provide all stakeholders with systematic information about the activity of the environmental authority of the Astrakhan region (within its mandate) on: protection, control and supervision over the use of fauna objects, forests, atmospheric air, water and land resources; on fauna reproduction and its habitat restoration, reproduction and protection of forests, participation in the monitoring of the environment status, on the organization of radiation monitoring in the Astrakhan region, and the development of environmental education and environmental culture of the population.

55 b. Internet-site/web-pages, which contain information about the environment, including the decisions of problems/issues related to the marine and coastal environment.

www.mnr.gov.ru - the official website of the Ministry of Natural Resources and Environment of the Russian Federation;
www.zapoved.ru - website containing information on specially protected natural territories of the Russian Federation;
PART 3. IMPLEMENTATION OF RESOLUTIONS AND DECISIONS OF THE COP-1

During the reporting period the Russian experts, involved in the development of priority protocols to the Tehran Convention, namely, Protocol on Biodiversity Conservation, the Protocol on the Protection of the Caspian Sea Against Pollution from Land-based Sources and Land-based Activities and the Protocol on Environmental Impact Assessment in a Transboundary Context, continued their work and participated in relevant negotiations at the regional level.

In addition, given the need to establish a regional mechanism for effective cooperation and coordination in case of significant oil spill, the relevant involved federal executive authorities started the process on approving the Protocol Concerning Regional Preparedness, Response and Co-operation in Combating Oil Pollution Incidents to the Tehran Convention, with view to its soonest adoption.

The Russian side undertook various organizational, technical and other measures aimed at successful implementation of the adopted at COP -1 the two-year Program of work of the Tehran Convention, both at the national and regional levels.

Preparation of a review on the interrelation of the fisheries industry and the marine environment of the Caspian Sea protection was carried out in cooperation with the Interim Secretariat experts.

The Russian side took part in discussion of issues, related to the organizational structures of the Tehran Convention, which were held between the 1st and 2nd sessions of the Conference of the Parties with the aim to settle those issues as soon as possible.

Pursuant to the decision of the 1st Session of the Conference of the Parties concerning the collective insurance of the sum of 360,000 U.S. dollars to the Tehran Convention budget for 2009 (72,000 U.S. dollars was a contribution of each Party), the necessary national procedures were carried out.

Also preparation for Russia's participation in the 2nd session of the Conference of the Parties was arranged.
PART 4. GENERAL CONCLUSIONS AND RECOMMENDATIONS

56. General assessment of the Tehran Convention implementation in the country, connected with an increase of the efficiency of activity on the protection of the Caspian marine environment against pollution, including the protection, conservation, restoration, sustainable and rational use of its biological diversity.

The Tehran Convention can promote the development of bilateral cooperation; in particular, the most urgent for Russia is the development of environmental cooperation between the Russian Federation and the Republic of Kazakhstan in the field of the marine environment protection in the North Caspian Sea.

The implementation of the Convention provisions will contribute to the efficiency of the activity on the Caspian Sea marine environment protection from pollution, as it is an effective legal tool to address environmental problems of the Caspian Sea, which is the area of economic and political interests of the coastal states.

Since its entry into force (August, 2006) the Tehran Convention is an integral part of the Russian environmental law, and its international provisions are applicable.


In 2008, under the Program of Work of the Tehran Convention for 2007-2008, adopted at the First Session of the Conference of the Parties (Baku, Azerbaijan, 2007) the Russian Federation performed all the activities (a detailed information is given in Part 3 - “Implementation of resolutions and decisions of the COP -2”).

The priorities of the Program of Work of the Tehran Convention for the period 2009-2010, adopted at the Second Session of the Conference of the Parties (Tehran, Islamic Republic of Iran, 2008) for the Russian Federation in 2009 are the following:
- development of national action plans under the Tehran Convention (NCAP);
  – participation in draft protocols elaboration;
- participation in the development of a regional framework for monitoring and evaluation, including monitoring and assessment of the Caspian Sea environment indicators;
- promotion and support for establishment of partnerships with private sector;
- development of Strategy for public participation in the region.

The above-mentioned priorities are the components of the NCAP.

58. Proposals listing the measures/activities that are necessary to take at the national level aimed at the further activation of the Convention implementation.

In compliance with the basic provisions of the Tehran Convention it was necessary to undertake a number of measures to enhance the implementation of the Convention and the conservation of the Caspian ecosystem.

The main directions of the oil and gas industry development should include:
- stabilization of oil and gas extraction on the earlier developed fields, which are at the late stage of development, mainly through the use of methods of extraction of raw materials with the intensification of obligatory installation of control/measuring equipment designed to detect
leakage of oil, the presence of oil in the marine environment, including in water column and on
the water surface and which operates in automatic mode;
- risk analysis of accidents and emergency situations, including these caused by natural disasters,
before the beginning of offshore activities at designing process;
- availability of adequate stock of the sorbent in an amount sufficient to eliminate the consequences
of the maximum possible spillages in case of hydrocarbons or other substances spills directly on
ships or rigs (platforms);
- further application of technology, providing “zero discharge” at the wells drilling and operating,
and transfer of the “zero discharge” practice on all the Caspian Sea aquatoria, and, first of all, on
the most valuable for the conservation and reproduction of biological resources and
environmentally sensitive waters in the North Caspian Sea;
- application of new technologies at re-activating of old wells, that minimize gryphon formation
processes with the release of oil, gas and produced water.

In order to conserve the biological resources of the North Caspian Sea it is necessary to provide the
following restrictions at all stages of development of raw hydrocarbons.

At carrying out exploration/drilling in the North Caspian Sea (Russian sector) it is necessary to
restrict the marine operations in the fish mass feeding sites (bream, roach, carp, perch, etc.).

In the middle part of the Caspian sea exploratory/drilling activities should be prohibited in the
mouth of the Terek River, Sulak and Samur river deltas, as these are the places of concentration of
juvenile sturgeon, and in the band of the 10-meter depth isobath along the Dagestan coast to the
south of the Chechen lake, and the southern border of the protected zone of the northern Caspian
Sea (mouth of the Sulak river), as the specified area is a part of the protected area of the Northern
Caspian Sea.

A ban on all types of exploration, extraction and transportation of hydrocarbons in a particularly
vulnerable and biosensitive areas of the coastal zone and the sea aquatoria, as well as on spawning
and nursery grounds of valuable marine fauna species should be introduced.

In order to ensure the environmental safety, the laying of pipelines in the North Caspian Sea,
through which the raw hydrocarbon is to be transported to the land, should be done at a depth at
least 3 meters in the zone of the possible grounded hummocks formation.

At laying pipelines on land they should be deepened in the area of wave motion of the sea.

Creation of cage farms near drilling platforms for the cultivation of fish in accordance with the
program of compensatory measures agreed with “CaspNIRKh” should be envisaged.

Methodological approaches to identification of the most vulnerable zones which are sensitive to oil
pollution in the North Caspian Sea should be developed, and on this basis, the zoning of its
aquatoria and prepare the environmental/fisheries maps should be developed.

In order to ensure the effective performance of the state environmental expertise and environmental
impact assessment as the main tools for assessing and preventing adverse effects on the
environment, it is necessary to introduce amendments into the federal legislation in part of
enlarging the list of the objects to undergo the state ecological expertise (SEE) with the following:
project documents of territorial planning of the Russian Federation constituent entities, land
reclamation projects, materials substantiating the amount (limits, quotas) of the fauna objects
catches and the conduct of acclimatization and hybridization of these objects; materials, proving
the transfer of lands of specially protected areas of regional significance and forest land fund or
sites within such areas into the lands of other categories; general schemes projects and development plans (including territorial planning schemes), etc.

In general, the main priority measures to reduce/prevent the marine environment and the coast of the Caspian Sea pollution relate to:
- development of recycling and re-consistent water use systems;
- environmental impact assessment of projects related to exploitation of the natural resources, including oil projects and transportation of hydrocarbons;
- participation in organization of ecological monitoring of the Caspian Sea environment;
- reduction of transboundary pollution.

Due to the relevance and credibility of the international role of the Tehran Convention, its mechanisms, such as NCAP, become an effective tool for the implementation of the state environmental policy of the Russian Federation in the Caspian region in the situation when there is a lack of compatibility of federal, regional and departmental programs in the field of the environment protection, as well as for the environmental legislation implementation.