

Environmental Cooperation Among Caspian Littoral States

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Cooperation in the environmental domain holds a specific place in relations between the five Caspian littoral states in the wake of the collapse of the Soviet Union and the subsequent formation of new geopolitical realities in the region. From that moment, the four new independent republics (Azerbaijan, Kazakhstan, Russia, Turkmenistan) and Iran concentrated their relations on defining the Caspian Sea's legal status, various aspects of natural resources management, social and economic cooperation, interaction in the transport and logistics area, and environment protection. The last issue was notable for the lack of fundamental contradictions between the countries, a shared recognition of its relevance, and an expression of readiness by the states at issue to jointly pursue nature protection policies. In fact, common environmental policies were developed much faster in comparison with other issues on the regional agenda, leading to certain results in both institutional and legal spheres.

This analytical policy brief examines the main ecological problems of the Caspian region, the stages of cooperation between the littoral states in the environmental area, and existing interstate institutional and legal mechanisms. It also explores the geopolitical dimension of environmental issues and provides recommendations on how to increase the efficiency of the Caspian region's environmental protection policy.

Key Ecological Problems

The environmental deterioration of the Caspian region is associated with a number of ecological problems. The first is the negative anthropogenic impact of oil and gas production. The main types of such pollution include emergency oil emissions, post-operational pollution, and oil and gas emissions during drilling. In addition, water samples and deposits collected from the bottom of the Caspian Sea show that the water area is contaminated with phenols and metals like mercury, lead, cadmium, arsenic, nickel, vanadium, barium, copper, and zinc.

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Tanker transportation of hydrocarbon raw materials has also had a significant impact on the Caspian Sea's ecosystem. The tanker fleets of the five coastal states are composed of hundreds of vessels, with a combined deadweight of more than 10,000 tons. Many ships are technically outdated, and some were converted from dry cargo vessels. This certainly increases the environmental risks and consequences of accidents and emergencies, given the sharp depth drop and complex geophysical system of the Caspian basin.

The impact of pipeline construction on the ecology of the region is also a factor. In addition to oil leaks, pipeline projects obstruct sturgeon migration. An oil leak itself affects the conservation of phytoplankton and zooplankton. At the same time, massive hydroelectric construction on the Volga, Kura, and other rivers that flow into the sea deprives fish of their natural habitats and leads to other problems, such as silting.

A decrease in the population of trade species of fish as well as the habitat dislocation of waterfowl, Caspian seals, and the flora and fauna of the internal water area also fall within the category of regional environmental problems. The oil and gas industry aside, another source of these problems is poaching. The most striking negative example in this context is the reduction of the Caspian seals population, which numbers only 60,000 to 70,000 now, as opposed to one million at the turn of the twentieth century. Negative trends are observed also with the number of sturgeon in the Caspian Sea.

The interim Secretariat of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (the Tehran Convention) highlighted a number of acute problems in its latest report on the state of the environment in the Caspian Sea. First, the report indicated that despite an improvement of air quality indicators in major cities along the Caspian coast, in most cases these continue to remain critically low.

Second, the report indicated that the region's continued urbanization leads both to the degradation of arable land and the reduction of its areas, as well as to a systematic increase in the amount of household waste and effluents. In addition, the report attributed a rise in the region's environmental pollution to an increase in the use of pesticides, fertilizers, and unprocessed waste from animal husbandry, which, among other things, leads to the Caspian Sea's eutrophication.

Finally, the report indicated that Caspian littoral states have increased their greenhouse gas emissions. This poses a particular threat to sea levels as well as to air and water temperatures above and in the sea itself. At the same time, sea level fluctuations appear to be going beyond past cycles and patterns. The water balance is influenced not only by the amount of water that comes from inflow rivers, but also by climate change (global warming). Although the former can be regulated through the construction of hydraulic structures and the diversion of river water into reservoirs, the latter is not possible to control directly, which means that its effects are much more difficult to mitigate.

The Caspian Sea accumulates pollutants that come with the flow of rivers flowing into it. The lack of access to the oceans, as well as fluctuations in the sea level, leads to a dysfunction of the local ecosystem. Finally, the increase in the scope and scale of energy complexes (e.g., offshore platforms) in the past several decades also led to an acceleration of the negative impact of economic activities on the environment.

Efficiency of Environmental Cooperation Mechanisms

Environmental issues are included in the agendas of almost all interstate-level meetings in the region. Even before the launch of Caspian heads of state summits, which later became a traditional format of regional cooperation, several important steps were taken in the field of ecology and environmental protection of the Caspian Sea.

In the first half of the 1990s, a number of declarative documents were adopted within the framework of which countries recognized obligations to protect the environment of the Caspian Sea. These include the Baku Resolution (1991), the Tehran (1992) and Astrakhan (1993) communiqués; and the Declaration on Environmental Cooperation in the Caspian (Almaty, 1994).

In 1998, cooperation in the environmental area took on a more institutional form when an intergovernmental Caspian Environmental Program (CEP) was established. CEP was supported not only by the littoral states, but also by the Global Environment Fund, the UN Development Program (UNDP), the UN Environment Program (UNEP), The World Bank, and the EU's Technical Assistance to the Commonwealth of Independent States (TACIS) program. The CEP began to prepare strategic and national action plans as well as conduct cross-border analyses of environmental problems. Projects were devoted, inter alia, to the monitoring of water quality in the Caspian Sea and various action plans for pollution control and prevention were conceived and executed. For example, UNDP and the United Nations Office for Project Services (UNOPS) launched a project titled "The Caspian Sea: Restoring Depleted Fisheries and Consolidation of a Permanent Regional Environmental Governance Framework" (CASPECO), with the participation of CEP.

It is worth noting that neither Armenia nor Georgia were involved in the Caspian Environmental Program, although the water systems of these countries are inextricably linked with the Caspian Sea. Another drawback of CEP was the closed (nonpublic) nature of its activities. However, it did contribute to the formation of an international legal framework in the field of regional environmental protection.

The accumulated experience of interaction within a new format, coupled with various programs and adopted strategic documents, led to agreement on a minimum of consensus positions within the format of interstate agreements. Thus, in Tehran on 4 November 2003, the heads of state of the five Caspian littoral states adopted the aforementioned Tehran Convention, which aims to protect the Caspian Sea from pollution as well as save

species and habitats. Its work is financed in various ways, including through a dedicated trust fund, the Global Environment Facility (GEF), and the EU Thematic Programme for Environment and Sustainable Management of Natural Resources Including Energy (ENRTP). The Tehran Convention's interim Secretariat prepares protocols on different issues, including ones focused on biodiversity conservation, readiness and response to large oil spills, and environmental impact assessments in a cross-border context.

However, the Tehran Convention is also subjected to constructive criticism due to a lack of specific methods and instruments for the distribution of responsibility, a lack of punitive mechanisms, no institutional controls, and no regulatory structure. It does not present pathways to solutions on critical environmental issues, such as standards regarding submarine pipeline construction. All of these shortcomings indicate a low-level elaboration of mechanisms for interstate environmental regulation in the Caspian region.

In 2014, representatives of the Caspian littoral states signed the Agreement on the Conservation and Sustainable Use of Aquatic Biological Resources of the Caspian Sea. This document served as the basis for the establishment of the Caspian Commission for the Conservation, Rational Use of Aquatic Biological Resources, and Management of their Joint Reserves. It approves catch quotas for joint aquatic biological resources and systematizes general information on the aquatic environment in the Caspian Sea. For instance, it established a ban, still in place, on the commercial fishing of sturgeon. In December 2021, the Commission reported on the development of a draft Protocol on Cooperation in the Field of Combating Illegal Fishing of Aquatic Biological Resources (Poaching) in the Caspian Sea to the Agreement on Cooperation in the Field of Security in the Caspian Sea.

Finally, in 2018, in the Kazakh port city of Aktau, the five heads of the Caspian littoral states signed the Convention on the Legal Status of the Caspian Sea. In terms of environmental issues, the long-awaited Convention confirmed agreements reached earlier; it also allowed for the construction of submarine pipelines provided that the project documentation complies with environmental requirements and standards enshrined in international treaties. Since then, plans to expand existing submarine pipelines (e.g., the Southern Gas Corridor) and build new ones (e.g., the Trans-Caspian Pipeline) need to be compliant with environmental standards. This could become a powerful tool in the hands of both supporters and opponents of such projects.

However, this convention has not yet been ratified by Iran, which means that it still has not come into force. Reports indicate that doing so has been perceived with discontent in certain circles in the Islamic Republic, notwithstanding the fact that the country's president affixed his signature to the text itself. There are several reasons why the Iranian parliament has not yet ratified the Convention. First, the text reduces the percentage of Iran's jurisdiction over the Caspian Sea to around 11 percent (in the Soviet

period, Tehran controlled roughly 50 percent). Although there was no well-defined contour of the Soviet-Iranian border in the Caspian Sea, references to the historical possession of half of the Caspian Sea and accusations concerning the “giving away” of ancestral rights have been effectively instrumentalized by ratification opponents. In addition, at the time of its adoption, the prospect for ratification was quite weak due to the coming parliament elections in Iran. Ratification became a challenge for parliamentarians who wanted to retain their seats as well as for political parties attune to trends in public opinion.

The new composition of the Iranian parliament, which is populated with greater numbers of conservative and hardline legislators, suggests ratification is not high on the agenda of the current parliament, either. The election of Ebrahim Raisi to the presidency in 2021 also speaks to this point. And there are the objective facts that the issue of the delimitation of borders in the Caspian Sea was and is still not a fundamental one for Iran, and that the terms of the Convention seem less attractive to Tehran than does the status quo ante.

In short, the non-ratification of this cornerstone document by Iran will continue to have an impact not only on political and economic relations, but also on efforts to heighten cooperation to protect the region’s degrading environment.

Observations & Suggestions

Environmental protection in the Caspian basin depends on a complex set of interactions involving the governments and parliaments of the littoral states as well as their respective scientific, academic, and think tank communities—not to mention the roles of international organizations, international financial institutions, NGOs, and so on.

Bearing this in mind, a few observations and recommendations can be made in the field of interstate environmental cooperation.

First, difficulties with securing Iran’s ratification of the Convention on the Legal Status of the Caspian Sea illustrate, inter alia, the lack of institutionalized inter-parliamentary interaction between the littoral states. This, in turn, affects plans to deepen regional cooperation in protecting the Caspian’s degrading environment.

For this and other reasons, a Parliamentary Assembly of the Caspian States, which could focus on developing regional legislation and forming political and legal instruments for its implementation, should be established. Creating a unified legislative platform to oversee the regulation of norms deriving from the Convention as well as other aforementioned documents would help the Caspian littoral states to come together on a whole host of regional cooperation issues, including protecting the region’s environment.

Second, since 2007 UNEP has performed the function of the interim Secretariat of the Tehran Convention, notwithstanding several attempts by its signatories to remedy this situation. For instance, the 2014 Conference of the Parties to the Convention established a mechanism of administrative management for the Secretariat on a constant basis. Yet this has not been implemented. UNEP remains in charge.

Today, the interim Secretariat is characterized by an over-bureaucratization of its institutions and procedures, a lack of coherence between various programs and practices, and the absence of a single collegial body to harmonize regional environmental protection measures. This has produced myriad negative effects. For example, the endangered Caspian seal was listed in the Red Books of littoral states in very different periods: Azerbaijan in 1993, Turkmenistan in 2011, and Kazakhstan and Russia in 2020. This means that conservation efforts began nearly three decades ago in the Azerbaijani part of the Caspian Sea while in other Caspian littoral jurisdictions hunters were able to continue their activities until only a few years ago, thus contributing to the further reduction of the seal population. Another example is the lack of action on preventing the spread of invasive species into the Caspian Sea, like the *mnemiopsis leidyi*, a tentaculate ctenophore native to west Atlantic coastal waters that has wreaked havoc in European waters, including the Caspian basin.

Reforming the region's interstate institutional architecture, starting with launching the work of the permanent Secretariat of the Tehran Convention, should be prioritized. A stakeholder-centric Secretariat would assume a priority role in coordinating regional environmental policies and serve as a common coordination center to eradicate invasive species from the Caspian Sea.

Third, when making decisions in the field of ecology and implementing environmental measures, it is necessary to perceive the Caspian region within a holistic framework environmentalists call the Caspian bioregion, taking into account the areas of sedimentation and reservoirs of drainage rivers. In so doing, optimally efficient management could be brought to bear on the Caspian's ecosystem.

In this regard, finding workable ways to conceptually incorporate rivers originating in Armenia and Georgia into the Caspian Sea basin's framework in the context of implementing regional environmental measures should be prioritized. So should ensuring that both Tbilisi and Yerevan are included into the work of the Tehran Convention Secretariat and other relevant regional mechanisms.

Fourth, the Caspian Sea's environmental monitoring system is poorly developed. There is no single practical mechanism (in contradistinction to the legal one, which is expressed, albeit in the form of intentions, in the relevant regional documents) to identify and resolve urgent problems of the Caspian ecosystem. Within the framework of the Tehran Convention, for example, it is extremely difficult to assess the quality

of air and the degree of pollution in the Caspian region due to the lack of a unified reporting system.

The Caspian littoral states should adopt a cornerstone recommendation of the CASPECO Steering Committee, which posited the need to systematically monitor the implementation of National Convention Action Plans using unified indicators. Establishing an agreed format to periodically provide environmental monitoring should be prioritized.

This brings to mind the controversial issue of adopting a special methodology to determine indicators of environmental efficiency in the Caspian region, given its unique ecosystem. An example of such practice was illustrated by the United Nations Economic Commission for Europe (UNECE)'s Committee on Environmental Policy. In 2007, it presented a set of recommendations on how to apply environmental indicators in Eastern Europe, the Caucasus, and Central Asia. These have not yet been implemented by the Caspian littoral states.

Fifth, there are many production, processing, service, and transport companies operating in the Caspian region's oil and gas sector. The state of the region's environment largely depends on how serious the intentions of these firms are to reduce anthropogenic pressure on the Caspian ecosystem.

They should be encouraged by the Caspian littoral states to bring together other relevant stakeholders to develop a code of conduct for sustainable industrial production in the region. This could take the form of a voluntary environmental and social code of business ethics.

Sixth, regional legislation in the field of environmental protection is largely declarative. The problem of creating a regionally binding regulatory mechanism for the implementation of environmental legislation is acute.

Specific methods and tools for distributing responsibility in this domain among environmental users, as well as for the application of sanctions mechanisms in the event of non-compliance, should be established as a matter of priority. Optimally, this would involve examining existing environmental regulatory procedures and practices at the national level of each of the five Caspian littoral states with a view to harmonizing and, where appropriate, strengthening them, at the regional intergovernmental level. This could be achieved through the development of detailed regulations within the environmental legislation of each of the stakeholder states.

Seventh, interaction in the environmental area has definitely become a driver of regional cooperation at the intergovernmental level. The goals of such interaction are simple and understandable; and the mechanisms for achieving key tasks are feasible. However, environmental cooperation also has a geopolitical dimension.

Often, the question of the compliance of certain energy projects with environmental safety criteria serves as a tool for influencing their development, their acceleration or delay, or even their termination.

For example, the proposed Trans-Caspian Connector Project—which would enable the direct supply of Turkmen gas to Azerbaijan and feed into the Southern Gas Corridor by means of a connector pipeline between a production platform in Turkmenistan’s Magtymguly field and gas-gathering facilities in Azerbaijan’s Azeri-Chirag-Guneshli oilfield complex—has become the subject of a dispute about its potential threat to the Caspian Sea’s biodiversity. Referring to independent studies of the seismological situation, the Russian side has said that its construction is fraught with environmental disasters. Proponents of its construction, meanwhile, have argued that the Russian position is nothing more than an excuse to prevent the launch of a project that is both geopolitically and geo-economically unfavorable to Russia.

Today, the prospects of this project have gained ground in the context of the EU’s urgent need to diversify its sources of natural gas supplies and its written commitment to, at the very least, double the volume of gas from Azerbaijan to its markets by 2027. Anything beyond this would almost certainly require the supply of natural gas from non-Azerbaijani sources. Hence the proposed Trans-Caspian Connector Project. The possibility of bringing it into being greatly improve in the event of Tehran ratifying the Convention on the Status of the Caspian Sea.

Meanwhile, the construction of most new submarine pipelines in the Caspian basin cannot be carried out without a comprehensive study of the seismological situation. Unfortunately, it is very difficult to exclude the politicization of the environmental factor in this and related contexts. It would thus be useful to establish ad hoc commissions on an equal footing for each disputable project. This would ensure its cross-national composition and the high qualifications of its members and would, in turn, pave the way for the provision of a clear methodology for assessing environmental threats in this and related contexts.