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Transboundary Issues on the Caspian Sea

Opportunities for Cooperation

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1. Introduction

In the past fifteen years the Caspian Sea as well as Central Asia have entered the sphere of western scholars, politicians, and businessmen. After the collapse of the Soviet Union in December 1991 and the emergence of several newly independent states, the veil of obscurity and isolation has somehow lifted from this region and from this body of water in the heart of Eurasia. Nonetheless, the general knowledge about this largest inland sea[1] in the world, remains rudimentary. The Caspian is either mentioned in connection with the enormous reserves of oil along its shores or under its seabed or a black gold of a very different kind, namely caviar, comes into mind. Although its neighbor to the east, the Aral Sea, has received much attention pertaining to the ecological disaster afflicting that lake, the environmental problems of the Caspian Sea have rarely reached out beyond a very specialized circle of scholars. The range of ecological damages and threats for the Caspian Sea and its drainage basin are immense and multiple, ranging from all kinds of pollution of water, land, and air, to extreme sea level fluctuations and the degradation of the unique biosphere.

The Caspian Sea is not just unique in being by far the largest inland body of water without any natural outflow. It also posses a unique flora and fauna with such living fossils as the several species of sturgeon or the Caspian Seal. Its hydrocarbon resources, although not as large as anticipated,[2] are nonetheless of great economic and strategic importance. On the Apsheron peninsula in Azerbaijan oil has been extracted since the 1870s.[3] Besides shaping the topography of Baku, the capital, and the economic structure of Azerbaijan—during Russian/Soviet control and after—it also is the cause of one of the worst ecological catastrophes on the planet.[4]

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1 The current surface area of the Caspian Sea is ca. 436,000 km^2. That is about 1.2 times the size of Germany. Bahro, Gundula/Lindemann, Inge, "Ressourcenreichtum und Umweltzerstörung am Kaspischen Meer", in: *Geographische Rundschau*, 56(2004)10, p. 18.

2 See Chapter 2.1 on the exaggerated estimates on the hydrocarbon resources in the region.

3 The first industrial extraction of oil from the area was carried out by the Nobel brothers who founded the Petrole Nobel Freres company in Baku in 1873. Aghai-Diba, Bahman, *The Law & Politics of the Caspian Sea in the Twenty-First Century. The Positions and Views of Russia, Kazakhstan, Azerbaijan, Turkmenistan, with Special Reference to Iran.* Bethseda/Md. 2003, pp. 17et seq.

4 See Chapter 2.3. for more on the so called "death zone" in Azerbaijan.

Another uniqueness is the lacking of any multilateral agreement on the legal status of this large sea or lake. There is no delimitation nor is there an agreement on how such a delimitation could turn out to be. Despite this situation, or because of it, the littoral states act as if the problem was solved, each according to their own interpretation of international law.[5]

Since 1991 there are five states with direct access to the shores of the Caspian Sea. These are the Russian Federation, Azerbaijan, the Islamic Republic of Iran, Turkmenistan, and Kazakhstan. The issues and problems concerning the Caspian are numerous, but still there is no joint organization that deals with these and future issues, there is hardly any international cooperation and exchange of data on the Caspian Sea between these states. Neither does a functioning multinational regime exist among these states to deal with the environmental threats in the region.[6] The reactions to the environmental consequences are uncoordinated. There are several causes for dispute between these states such as the afore mentioned lack of a legal regime and, closely connected to this, the competition for concessions with foreign oil companies for the exploitation of the offshore oil and gas deposits. The lack of trust between the newly independent states and their former "occupier" Russia—which considers itself the legal successor of the USSR, their drive to independence through economic self sufficiency, the ambiguous, sometimes even, contradictory policies of Russia, the lack of democratic and accountable governments, the widespread corruption, the international isolation of the regime in Iran and the involvement and meddling of external states and energy companies in the region are all just a glimpse of the serious issues this region faces. These are all issues which can only be dealt with in cooperation between the states of the region.

Since the afore mentioned issues are all of a highly sensitive and contentious nature to the governments concerned, especially in a region where confidence between the actors is lacking, it should be the aim of all stakeholders in the region and beyond to find an issue of common concern to them all. An issue, where the stakeholders can be convinced that if it wasn't dealt with multilaterally, not one actor would benefit. This means that a positive-sum solution for the problems at hand need to be found

[5] See, for example, the somewhat biased, but still very valuable work of: Aghai-Diba, *The Law & Politics of the Caspian Sea*, op.cit.

[6] In 1995 the Caspian Environment Program (CEP) was launched with the participation of all five states. On the effectiveness as well as seriousness of this program see Chapter 4.4.

in contrast to the classical geostrategic zero-sum games that are currently being played out.[7]

The aim of this work is to identify if the problems posed by the environmental degradation of the Caspian Sea could be such an issue. The results of cooperation on environmental issues would be twofold. First it would ensue direct action against the large-scale ecological degradation, protection against future threats, mitigation of existing problems, and adaptation to the current ecological situation. The second impact could be that by working together on one issue the participating actors would learn to act as a team, build up confidence in one another and experience the positive results of cooperation. Both objectives are highly challenging. Reversing or stopping environmental threats is no easy, linear task, neither is—from the current perspective—confidence-building between the various states on the Caspian Sea. Nonetheless, for the sake of peace and security in the region, the author of this work believes that this task should be tackled.

A more thorough description of the major problems facing the Caspian littoral states, which are the hydrocarbon resources and their effect on the geopolitics of the region, the legal regime, and the environmental threats, is given in Chapter two. Following this, the author will attempt to find the connection between these problems and a security threat to the region as a whole. In order to accomplish this, a holistic view on security issues must be taken, related to the concept of *Human Security*. In Chapter three, the methodology and theoretical background is presented. It mainly deals with the concept of environmental regime theory and the lessons learned from the emergence and effectiveness of international environmental regimes. This will be explained by using the "3-Cs concept" analysis[8]—concern, contractual environment, and capacity—as well as a short description of the process of institution building.

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7 The classical view in the form of geopolitics and geostrategy in the region is espoused by Zbigniew Brzezinski in chapter 2, "The Eurasian Chessboard" of his work: *The Grand Chessboard. American Primacy and its Geostrategic Imperatives*, New York 1997; see, also, Jaffe, Amy Myers/Manning, Robert A., "The Myth of the Caspian 'Great Game': The Real Geopolitics of Energy", in: *Survival*, Winter 1998/99. http://www.treemedia.com/cfrlibrary/library/geopolitics/jaffe.html (accessed: 04.03.05)

8 The "3-Cs" of this concept were formulated by Peter M. Hass, Robert O. Keohane, and Marc A. Levy in their work: *Institutions for the Earth. Sources of Effective International Environmental Protection*, Cambridge/Mass. & London 1993, pp. 19-21 & 397-426.

In Chapter four the above presented concept will be applied on the situation in the Caspian Region. By looking at the different positions, priorities and policies of the major actors on the Sea, an analysis of the possibilities and obstacles for cooperation on environmental issues will be undertaken. Through the comparison of the national strategies towards the Caspian Sea the possibilities for cooperation shall be looked into. This will be complimented by an evaluation of the existing Caspian Environment Program (CEP) which was launched between all five riparian states in 1995.

As has been mentioned before the research on this geographical area is mostly concerned with the economic and geopolitical implications of the hydrocarbon deposits of the Sea and, since the area is landlocked, ways of how to transport them to the world market. Source material on environmental issues, policies and cooperation schemes are rare. Many of the articles are clearly biased in favor of one of the littoral states against the rest. The blame for not finding a solution for the pressing problems is always put on the other states. This is further complicated when one looks at the origin of most of the authors on the subject. If they are not from Western countries they are either from Iran or Russia.[9] There are very few articles from Kazakh or Azeri authors and almost none from Turkmenistan. There are a few scholars from outside the region who approach the subject mainly from a water resource management perspective and whose analysis and conclusions are indispensable for this work. Special mention should be made of the two volumes which document the proceedings of the two *NATO Advanced Research Workshops on the Caspian Sea*[10] as well as of the works of Dr. Gundula Bahro,[11] who specializes on environmental problems in the CIS.

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9 It suffices to say that many of these publications are in Russian or Farsi and are not widely circulated in the west.

10 Glantz, Michael H./Zonn, Igor S. (eds.), *Scientific, Environmental, and Political Issues in the Circum-Caspian Region*, Proceedings of the NATO Advanced Research Workshop in Moscow, 13-16 May 1996. Dordrecht et al. 1997; Ascher, William/Mirovitskaya, Natalia (eds.), *The Caspian Sea: A Quest for Environmental Security*, Proceedings of the NATO Advanced Research Workshop in *Venice*, 15-19 March 1999. Dordrecht et al. 2000.

11 Bahro/Lindemann, "Ressourcenreichtum und Umweltzerstörung am *Kaspischen* Meer", op.cit., pp. 18-27; Bahro, Gundula/Betke, Dirk/Giese, Ernst, *Umweltzerstörungen in Trockengebieten Zentralasiens (West-Turkestan und Ost-Turkestan). Ursachen, Auswirkungen, Maßnahmen*, Stuttgart 1998.

The book by Dr. Bahman Aghai-Diba[12] was also a valuable source for documents on the different positions of the littoral states vis-à-vis the Caspian Sea. Access to direct information from the states concerned was not easy to obtain, although there area several sources on the Internet, the reliability of these is not always given. Official web pages, for example, of the respective Ministries for Environment, or similar agencies, are not in all cases available. When they were available—as in the case of Azerbaijan, Iran, and Russia—they offered a lot of information, yet not always the desired one.[13]

Morphometry, hydrology and geography of the Caspian Sea

The Caspian Sea is the largest inland body of water with a current surface area of 436,000 km^2 (2004). From north to south it extends for about 1,200 km and is between 204-566 km wide (east-west). Its shoreline is about 7,000 km long. The salinity ranges from 1 percent at the Volga Delta to 14 percent in the south and up to 300 percent in the Bay of Kara-Bogaz-Gol. 80 percent of the inflow comes from the Volga River—the basin of which is situated completely in the Russian Federation. Other inflow comes from smaller rivers, mainly the Kura, Terek and Ural (Zhayyq) as well as from rainfall. There is no natural outflow for this body of water except through evaporation.

The Sea can be roughly divided into three parts. The northern part, which mostly lies in the zones of influence of Russia and Kazakhstan, is very shallow with its depth ranging from 5 to 20 m. Because of strong winds in the area floods are very common, in winter this part is covered with thick ice strata. Because of its flatness this area is the most vulnerable in terms of hydrology, ecology and economy. There, one can find the breeding and spawning grounds of several fish species—including the sturgeon—but also the large oil deposits of Kazakhstan (mainly Tengiz, Kashagan). The middle part, situated between the Mangyshlak Peninsula of Kazakhstan in the northeast and the Apsheron Peninsula of Azerbaijan in the south west, is between 200 and 800 m deep; it also includes the Bay of Kara-Bogaz-Gol, the water level of which is below that of the Caspian and serves as a source of brine for chemical production. As for the southern part, it is the deepest with its depth ranging between 325 m and 1,025 m, and lies in the spheres of influence of Azerbaijan, Iran

[12] Aghai-Diba, *The Law & Politics of the Caspian* Sea, op.cit.

[13] See Chapter 4.3. for further details on these web pages.

and Turkmenistan. Large offshore oil deposits are found in this part.

The water level of the Caspian is currently 27 m below that of the mean sea level (msl). The water level fluctuated heavily throughout time. In the twentieth century two sharp changes occurred. A drop of about 3 m to –29 m below msl from 1930 to 1977 and a sharp rise of 3 m to –26 m below msl from 1978 to 1995. Since 1998 the level has been stable at the afore mentioned –27 m below msl.[14]

2. Transboundary challenges and the need for cooperation

Until the collapse of the Soviet Union in 1991 the Caspian Sea was under the suzerainty of only two States, the USSR and Iran (Persia). The extreme asymmetry in power and resources between these two countries lead to a *de facto* control of the entire Sea by the Soviet Union alone.[15] Thus issues affecting the Caspian Basin as a whole were mostly dealt with in the context of internal Union politics or joint Soviet-Iranian projects.[16] The sudden increase from two to five sovereign States on the shores of the Sea highlighted the complex nature of issues and problems that transcend international borders under these new conditions. Oil and gas deposits don't adhere to lines on a map, neither do pollutants of any kind acknowledge the boundaries drawn by man, and fish don't have a nationality. It is therefore not just a possibility but an imperative requirement that the littoral states of the Caspian Sea cooperate to solve these common problems.[17]

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[14] Several sources, primarily: Bahro, Gundula/Lindemann, Inge, "Ressourcenreichtum und Umweltzerstörung am Kaspischen Meer", in: *Geographische Rundschau*, 56(2004)10, pp. 18-27; Golubev, Genady N., "Environmental policy-making for sustainable development of the Caspian Sea area", in: Kobori, Iwao/Glantz, Michael H. (eds.), *Central Eurasian Water Crisis. Caspian, Aral, and Dead Seas*, Tokyo et al. 1998, pp. 99-104.

[15] See, for example, Aghai-Diba, Bahman, The Law & Politics of the Caspian Sea in the Twenty-First Century. The Positions and Views of Russia, Kazakhstan, Azerbaijan, Turkmenistan, with Special Reference to Iran. Bethseda/Md. 2003, pp. 25-28 as well as Romano, Cesare P. R., "The Caspian and International Law: Like Oil and Water?", in: Ascher, William/Mirovitskaya, Natalia (eds.), The Caspian Sea: A Quest for Environmental Security. Dordrecht et al. 2000, p. 145.

[16] Since 1927 a joint Soviet-Iranian company has had the sole right to fish in the southern part of the Caspian. See: Romano, "The Caspian and International Law", op.cit., p. 147.

[17] This view is endorsed by almost all contributors to the book by the NATO Science Series: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit. p. 25; see also, Golubev, Genady N., "Environmental policy-making for sustainable development of the Caspian Sea area", in: Kobori, Iwao/Glantz, Michael H.

A failure to act can only lead to an exacerbation of the environmental degradation and pose a security risk which will not be restricted to a single country of the region.[18] The following relates the three most pressing transboundary issues and the effects they have on the region.

2.1 The hydrocarbon resources and the geopolitics of the region

The euphoria of the early 1990s, when the Caspian Region was declared to be a new "Persian Gulf"[19] have abated in the last years of the 20th century. Exaggerated estimates of possible oil reserves in and around the Caspian Sea had to be corrected from as high as 659 billion barrels[20] to something around 186 bbls[21] in the course of the decade, not least due to the lack of yield from exploration drillings in several offshore locations. Proven oil reserves are much less. Current estimates for the five littoral States range from 17 to 33 bbls[22] of proven reserves, about as much as those for Qatar alone. As for natural gas the current estimates for proven reserves are at 232 trillion cubic feet, whereas possible reserves are traded at 328 tcf.[23] These figures are not only misleading in their large discrepancies but also in the false promises of wealth they pose for the newly independent states. Actual production of oil, for example, reached roughly 1.5 million barrels per day in 2003[24], comparable to that of Brazil. The price of oil on the world market, the method and feasibility of extraction, the access and transportation to the market, and not least the costs of environmental damage are all decisive factors

(eds.), *Central Eurasian Water Crisis. Caspian, Aral, and Dead Seas*. Tokyo et al. 1998, pp. 101et sqq.

18 Ibid.

19 See: Waelde, Thomas. "International Good Governance and Civilized Conduct among the Caspian States: Oil and Gas as Lever for Prosperity or Conflict", in: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit. p. 31; Halbach, Uwe/Friedmann, Müller, "Persischer Golf, Kaspisches Meer und Kaukasus – Entsteht eine Region vitalen europäischen Interesses?" *SWP-Studie* 2001/S 01, January 2001.

20 Estimate of the American Petroleum Institute in December 1995 for all states bordering the Caspian Sea. Kuniholm, Bruce, "The Geopolitics of the Region", in: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit. p. 93.

21 Energy Information Administration (EIA), Caspian Sea Region: Survey of Key Oil and Gas Statistics and Forecasts. December 2004. http://www.eia.doe.gov/emeu/cabs/caspian_balances.htm (accessed: 09.06.05)

22 EIA, Caspian Sea Region, op.cit.

23 Ibid.

24 Ibid.

which determine a profitable exploitation of these resources. The uneven distribution of the offshore oil and gas deposits further heightens the tension between the have and have-nots of the region.

The estimates—exaggerated or moderate—led to a sudden rise in the economic and political significance of the region on a global scale. The heightened involvement of the United States, Turkey, and Iran, and to a lesser degree, the European Union and China in the region as well as the patronizing behavior of Russia[25] towards Azerbaijan, Kazakhstan and Turkmenistan are all directly related to the relatively large deposits of hydrocarbons in the region and the absence of an access to the open seas. To describe this as a new episode of the "Great Game"[26] of the 19th century between Russia and Britain would be a historical comparison lacking in precision. Economic factors and actors (i.e. the large oil and gas companies) play as much an important role as do geopolitical considerations. Nonetheless the question of transportation, i.e. the different pipeline routes, remains an issue of highest contention between the producing, transit, and consuming states as well as the energy corporations.[27]

2.2 The lack of a legal regime and disputes over delimitation[28]

A second problem emerging from the breakup of the Soviet Union is the legal status of the Caspian Sea. Is it to be categorized as an enclosed sea or as an international lake? Is it to be divided between the five littoral states or shared as a *condominium*—meaning a joint ownership of the seas resources? Since there is no real legal precedence to this case, agreement on the legal status is still pending. Historically the status of the Caspian Sea was

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25 For a comprehensive summary of the changing Russian policy in the region see: Kreikemeyer, Anna, "Konflikt und Kooperation in der Kaspischen Region: Russische Interessenlagen", in*: Aus Politik und Zeitgeschichte*, (16. Oktober 1998) B 43-44/98, pp. 13-25.

26 See, for example, Kuniholm, "The Geopolitics of the Region", op.cit. p. 91et sqq.; Jaffe/Manning, "The Myth of the Caspian 'Great Game'", op.cit.

27 Probably the most controversial pipeline project is the so called BTC-Pipeline (Baku-Tiblisi-Ceyhan). Despite it being neither economically efficient nor geographically logical it was pushed through by the US government in order to prevent Iran and Russia from profiting from the oil resources of the Caspian. See especially: Waelde, "International Good Governance", op.cit. pp. 35et seq.; see also chapter 4.1.

28 For a good summary see: Heinrich, Andreas, "Der ungeklärte rechtliche Status des Kaspischen Meeres", in: *Osteuropa*, 49 (Juli 1999) 7, pp. 671-683.

defined by the treaties of 1921 and 1940[29] between the USSR and Persia (Iran). According to those treaties the Caspian Sea was regarded as commonwealth for both sides with equal rights of navigation and fishing. No demarcation was agreed upon but neither was the subject of mineral resources addressed. In the 1970s the Soviet Union unilaterally declared the extension of the land borders as the dividing line of the Sea. Because of the political situation Iran neither recognized nor contested this act.[30]

The new situation created by the emergence of new states as well as the question of ownership of the mineral resources made clear the need for a legally binding solution to the status of the Sea. In general two opposing positions emerged: One proposed to divide the Sea into national sectors in allusion to the UN Convention on the Law of the Sea.[31] The other proposed to allow for a small national sector or an exclusive economic zone and a jointly used area in the middle of the Sea[32]. Even though positions have shifted during the last 15 years it can be said that, on the one hand, the newly independent states of Azerbaijan, Kazakhstan and Turkmenistan favored the first solution of complete partition, whereas on the other hand, the "older" states of Russia and Iran favored a common use of the Sea's resources. All three former Soviet republics had the promise of large hydrocarbon reserves in their possible national sectors (oil in Azerbaijan, oil and gas in Kazakhstan, and gas in Turkmenistan) and were aspiring to reach economic and political independence from Russia. Russia and Iran on the other hand were not dependent on the reserves in the Caspian—having other and larger reserves in other regions—and could thus obstruct a legal solution and delay the exploitation of the Caspian Sea reserves.[33]

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29 The 1921 Treaty of Friendship and the 1940 Treaty on Trade and Navigation between Iran and the USSR. Aghai-Diba, *The Law & Politics of the Caspian Sea*, op.cit., pp. 19et sqq.

30 This was the so-called "Astara-Hassanqoli Line", named after the respective towns on both sides of the Sea. Aghai-Diba, op.cit., p. 23.

31 Mainly Part IX: "Enclosed or Semi-Enclosed Seas" of the 1982 United Nations Convention on the Law of the Sea. It should be noted that the Russian Federation is the only littoral state which ratified the Convention in 1997. Iran did sign but ratification is still pending. The other three states have done neither.

32 This compromise solution was mainly endorsed by Russia and Iran in the early 1990s.

33 See: Vinogradov, Sergei V., "The 'Tug of War' in the Caspian: Legal Positions of the Coastal States", in: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit., p. 194 et sqq.

In September 1994, Azerbaijan signed the US $10 billion "deal of the century" with a consortium of 11 oil companies headed by British Petroleum[34] to exploit the offshore fields of Azeri, Chirag and Gunashli. Although the Russian Foreign Ministry issued a strong letter of protest to the UN[35] threatening retaliation against any unilateral action to extract mineral resources from the Sea until a "new" legal regime is agreed upon, the Russian Ministry of Fuel and Energy and the then Prime Minister Victor Chernomyrdin approved of the deal after the partly state-owned Russian oil company LUKoil was granted a 10 percent share in the consortium.[36]

Just as the above-mentioned incident demonstrates one of several ambiguous disputes over the delimitation and the resource distribution,[37] there are also several examples of bilateral cooperation between the riparian states. In 1996, a working group was established on the level of deputy Foreign Ministers of the five Caspian states to discuss the sea's legal regime. In 1998, the Russian Federation diverged from its former position by agreeing with Kazakhstan on the division of the sea bed as well as a joint exploitation of energy fields, while allowing for the common use of the water and surface of the sea. This agreement was rendered more precise in 2003 when Azerbaijan—with its sector borders on both the former ones—also joined the agreement with Russia and Kazakhstan. Turkmenistan and Iran declined to join the Agreement.[38]

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[34] This resulted in the Azerbaijan International Operating Company (AIOC) consisting of 10 major international oil companies and SOCAR – the government-owned oil company. http://www.azer.com/aiweb/categories/magazine/62_folder/62_articles/62_socar_aioc.html (accessed: 19.06.05)

[35] Letter dated 5 October 1994 from the Permanent Representative of the Russian Federation to the United Nations addressed to the Secretary-General. Cited in: Aghai-Diba, op.cit. pp. 88-91.

[36] Blum, Douglas W., "Domestic Politics and Russia's Caspian Policy", in: *Post-Soviet Affairs*, 14 (April-June 1998) 2, pp. 139et seq. In 2003, LUKoil sold its 10 percent share to a Japanese company due to poor future prospects. See: Pany, Thomas, "'Pipelinistan' – Das große Spiel um Zentralasien", in: *TELEPOLIS*, 30.05.2005. http://193.99.144.85/tp/r4/artikel/20/20199/1.html (accessed: 23.06.2005)

[37] Other major disputes over exploitation rights of mineral resources are between Azerbaijan and Turkmenistan, Azerbaijan and Iran and Kazakhstan and Russia.

[38] Onica, Timur, "Optimism Increases for Caspian Sea Agreement", in: *EurasiaNet*, 19.04.04. http://www.eurasianet.org/ departments/business/articles/eav041904.shtml (accessed: 19.06.05) The three states agreed to divide the Sea along the median line with perpendicular extensions of the

Things began to gather momentum in 2003 after a meeting of the Caspian Sea working group in which 40 percent of the subjects, mainly environmental issues and implementation technicalities, were agreed upon. During several meetings of the working group in 2004 a draft convention on the legal status of the Sea was drawn up. The convention was supposed to be agreed upon during the Caspian Head of State summit in December/January 2004/05 in Tehran. Due to differences between Turkmenistan and Azerbaijan on the ownership of the Sadder/Kyapaz oil field, the summit was postponed until after the Iranian presidential elections in June 2005.[39] To date, although there are several bilateral agreements on the division of the sea bed as well as joint ventures for energy field exploitation,[40] an agreement on the legal status of the Caspian Sea is still pending.

2.3 Environmental threats in the Caspian Sea region

The damages to the environment as well as present and future ecological threats in the Caspian Sea basin are numerous. In several areas it seems already too late to reverse the damage. Parts of the Apsheron Peninsula – where Baku and its suburbs lie—as well as large parts of the coastal waters of Azerbaijan have been declared a "dead zone". Three-quarters of the Sea's surface are heavily contaminated, Sumgait, a center of chemical industry on the peninsula is experiencing an ecological catastrophe.[41]

In short, the most important environmental threats which affect large parts of the region as well as economic, social, and security issues are the following:[42]

land borders. Iran on the other hand adheres to the principle of equitable division, giving each state a 20 percent share of the Caspian. Turkmenistan's position remains ambiguous.

39 Fuller, Liz, "Still no Decision on Caspian Sea", in: *Payvand's Iran News*, 02.02.05. http://payvand.com/news/05/feb/1017.html (accessed: 19.06.05)

40 In 2001 even Iran started projects to exploit offshore oil fields in its hypothetical national sector in cooperation with Royal Dutch Shell and UK's Lasmo. Aghai-Diba, op.cit, pp. 37et seq. & pp. 42et seq.

41 This is just a small example of the environmental damage inflicted upon the Caspian region. For a very drastic account of the environmental degradation and further threats see: Bahro, Gundula/Lindemann, Inge, "Ressourcenreichtum und Umweltzerstörung", op.cit., pp. 18-27; see also: Glantz, Michael H./Zonn, Igor S. (eds.), *Scientific, Environmental, and Political Issues in the Circum-Caspian Region*, Dordrecht et al. 1997.

42 Ibid.

- The discharge of chemical, radiological, and biological pollutants from the in-flowing rivers leads to a high degree of water pollution of the Sea and the coastal areas. Mainly the Volga[43], but also the Kura in Azerbaijan, carries thousands of tons of fertilizers, heavy metals, and contaminated soil into the Caspian Sea. The other major pollutants are the oil and gas industry, beginning from discharge during exploration drillings, to waste disposal from oilrigs, leaking pipelines, and tanker accidents, as well as old and inefficient technology. Major effects of this pollution are a rapid decline in the water quality threatening not only the biosphere but also the coastal inhabitants. This threat is manifested in the from of contaminated drinking water and fish as well as a reduction in recreation and tourism opportunities.
- A direct consequence of the water pollution is the decline of the commercial fish stock of the Caspian. Nonetheless because of the economic dimension this issue is treated separately from the general water pollution. Before the large-scale exploitation of the hydrocarbon resources, fish was the major economic resource of the sea – and this pertains not only to the sturgeon, source of the culinary delicacy, caviar.[44] A second cause of the drastic decline in fish stock is the spread of illegal fishing methods and poaching. This is partly due to the disruption of law enforcement after the collapse of the Soviet Union but also due to the economic decline, caused by the collapse, leading to a large increase in

[43] Just to get an idea of the magnitude of the pollution resulting from the inflow of the Volga each year: 57,000 t of chloric substances, 200,000 t of formaldehyde, 833,000 t of Methanol, 550,000 t of Mercury, 300,000 t of phenol, plus organic wastes. (numbers for 1994) Bahro/Lindemann, op.cit., p. 21.

[44] "In the early 1980s the Soviet Union recorded sturgeon catches of 20,000 to 26,000 tons a year. These days [1999] the official catch for all the Caspian nations is about 3,000 tons." Cited in: Cullen, Robert B., "The rise and fall of the Caspian Sea", in: *National Geographic Magazine*, 195(May 1999)5, p. 31. On the Caviar business see also: Mokhiber, Russell/ Weissman, Robert, "Of Caviar and Capitalism", in: *CounterPunch*, 18.12.2002.
http://www.counterpunch.org/mokhiber1218.html (accessed: 19.06.05); AFP, "Iran's Caspian caviar business on the rocks", in: *The Daily Star*, 07.12.04.
http://www.dailystar.com.lb/printable.asp?art_ID=10740&cat_ID=3 (accessed: 11.06.05)

unemployment, mainly in the Russian and Kazakh coastal cities, and thus to "alternative" ways of earning a living.[45]

- A unique cause of threat to the ecological situation of the region is the highly fluctuating sea level[46] of the Caspian Sea. As mentioned before the rise of almost 3 meters from 1977 to the middle of the 1990s led to large-scale flooding on the coasts of all five littoral states. In combination with wind surges the water can reach inland for several kilometers, especially in the large expanses of flat steppes in the northern regions. The causes of this sea level fluctuation—which has been taking place since prehistoric times—are mainly natural. They include tectonic activity at the sea bottom, changes in inflow, precipitation and evaporation. Although there are some minor anthropogenic factors contributing to the rise or fall of the water level, such as the building of dams on the Volga or the isolation of the Bay of Kara-Bogaz-Gol[47] in the east of the Sea where the rate of evaporation is much higher, there don't seem to be any serious technical means with which this fluctuation can be stabilized.[48] Nonetheless the fluctuations are directly affecting human life and the environment in the region. Infrastructure and settlements are flooded, agricultural land is water logged and subjected to salinization, radioactive waste dumps are filled with sea water, and several abandoned and new oil wells and rigs have been

45 See the article by Cullen in the National Geographic Magazine, op.cit., for a description of this process.

46 See, for example, Golubev, "Environmental policy-making for sustainable development of the Caspian Sea area", op.cit., pp. 93-102; as well as the whole of Part II. "Sea Level Rise: Impacts and Implications" of: Glantz/Zonn (eds.), *Scientific, Environmental, and Political Issues in the Circum-Caspian Region*, op.cit., pp. 69-137.

47 To stop the decline of the sea level from the 1930s to the 1970s a dam was constructed between the Sea and the Bay to stop water from flowing into the Bay. This project was finished in 1980 when it became apparent that it was counterproductive because the level was now rising again. Nonetheless the dam was only destroyed by Turkmenistan after the collapse of the Soviet Union in 1992. Frolov, Anatolii V., "New Methods for Managing Caspian Sea Level Fluctuations", in: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit., p. 84.

48 Frolov argues that in controlling the water outflow in to the Kara-Bogaz-Gol Bay the fluctuation could be partly controlled. Frolov, "New Methods", op.cit.; Golubev partially contest this view by stating that "[...] the behavior of [the] factors [of inflow to and evaporation from the Sea] is close to that of 'white noise'.", but he still concedes that "obviously, a total or partial stabilization of the sealevel is beyond human means, but some modest degree of control is possible." He suggests to use the large flat territories of the north-eastern Caspian as evaporation pans. Golubev, "Environmental policy –making", op.cit, pp. 94et seq., 101et seq.

flooded leading to large-scale discharge of oil and other harmful chemicals into the sea and groundwater.[49]

- In addition to the direct pollution of the Sea, the land surrounding it as well as the air above is threatened by a large number of pollutants caused by several sources.[50] The most important of these is large-scale desertification—especially in Turkmenistan and Kalmykia (Russia),[51]—salinization of agricultural land, radioactive contamination from nuclear reactors and nuclear test sites (mainly in Kazakhstan) and the numerous hazards arising from oil leaks, the destruction of natural habitats, agricultural land, displacement of persons and the danger of landslides caused by the heavy construction ventures in an area with high risks of earthquakes.[52]

All the above mentioned environmental threats are transboundary in character, either in their origins, their effects or both. The major pollution caused by the Volga originates solely from Russian territory but affects all coastal states, Azerbaijan's oil industry leads to the pollution of the Iranian coast. The fluctuating sea level and the decline of commercial fish stock affect coastal communities along the entire Sea. The counter-clockwise current of the Caspian carries pollutants from their source across the whole surface area of the Caspian and back.[53] What this implies is that in order to try and prevent pollution from the start and to mitigate and/or to adapt to the dire effects of pollution, a cooperative effort of all States, as well as international actors, is needed to ensure a positive future for the region and its inhabitants.

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49 See: Bahro/Lindemann, op.cit., pp. 20-24.

50 Ibid.

51 Saiko, Tatyana A./Zonn, Igor S., "Europe's First Desert", in: *The Geographical Magazine*, 67(1995)4, pp. 24-26.

52 See, for example, the enlightening articles on the BTC-pipeline: Vogt, Timo, "Der Schwarze Fluß im Kaukasus. Öl für Europa: Die längste Pipeline der Welt führt durch politisch und tektonisch unsicheres Gebiet", in: *Frankfurter Allgemeine Zeitung, Reiseblatt*, 09.06.05, pp. R10-R11; Escobar, Pepe, "The Roving Eye. Pipelineistan's biggest game begins", in: *Asia Times Online*, 26.05.2005. http://www.atimes.com/atimes/Central_Asia/GE26Ag01.html (accessed: 23.06.2005); see, also, the position paper: "Die Baku-Tiflis-Ceyhan Pipeline" of the WWF (World Wildlife Fund for Nature) Germany, 17.03.2003. http://www.wwf.de/imperia/md/content/naturschutz/2.pdf (accessed: 23.06.2005)

53 See: Aghai-Aghai-Diba, op.cit., pp. 14et seq.

2.4 The environmental security of the Caspian Sea

The concept of environmental security has been acknowledged for some time. It is part of the overall concept of comprehensive security, dealing with security issues not just on the military and interstate level but on a whole range of other aspects such as the economic situation, human rights, social situation and, of course, the state of the environment. But also outside this holistic concept of security, the environment has been considered as a factor in the security equation. Following is a short clarification of both concepts of environmental security[54] and their application on the situation in the Caspian Region.

The traditional concept of environmental security ascribes two coherences to the relation between environment and security. It is assumed that drastic environmental change as well as the scarcity of resources can contribute to the outbreak of violent conflict. This is most clearly stated in writings about the conflicts in the Middle East, be it the scarcity of water as *the* future cause of armed conflict or the decisive role of oil in the three Gulf Wars.[55] The closest it ever came to such a security threat on the Caspian Sea was when a dispute between Azerbaijan and Iran arose on the exploration of the Alov, Araz, and Sharq (Alborz) oil fields in July 2001. This involved a show of strength by the Iranian air force flying over the disputed area, the articulation of historical claims by Iran on Azerbaijan as well as a show of support by Turkey to Azerbaijan in sending F-16 fighter jets to Baku.[56] The other aspect considered in the traditional view is the adverse impact of warfare and other military maneuvers on the environment.[57]

In the Caspian Region there are some incidents and actions that pose a threat in the traditional sense. A general trend to the militarization of the Sea can be observed. Whereas Russia used to be the only naval power on the Sea now other littoral states are aspiring to naval capacities on the Caspian. Kazakhstan is building up its naval capacity with US assistance, Iran is diverting some of

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[54] On the concept of environmental security see: Soroos, "Environmental Change and Human Security in the Caspian Region", op.cit.

[55] On water see, for example, Scheumann, Waltina/Schiffler, Manuel (eds.), *Water in the Middle East. Potential for Conflicts and Prospects for Cooperation*, Berlin & Heidelberg 1998; Bulloch, John/Darwish, Adel, *Water Wars: Coming Conflicts in the Middle East*, London 1993. As for oil, see: Klare, Michael, *Blood and Oil. The Dangers and Consequences of America's Growing Dependency on Petroleum*, New York 2004.

[56] A description of this incident can be found in: Aghai-Diba, op.cit. p. 76et seq. & 109-115.

[57] See, for example, Lanier-Graham, Susan D., The Ecology of War: Environmental Impacts of Weaponry and Warfare, New York 1993.

its naval forces from the Persian Gulf to the Caspian Sea. The threat of a future arms race with respect to the Caspian cannot be ignored.[58] Another threat in the traditional sense is the destruction of oil pipelines and other equipment in Chechnya as a result of military action, leading to a severe pollution of the Terek River that flows into the Caspian Sea.[59]

The comprehensive approach to environmental security is directly related to the concept and ongoing discussion of *Human Security*.[60] In short it can be said that comprehensive environmental security is closer to the broader concept of human security as endorsed by the "Japanese" vision. Threats to the environment are considered as a direct threat to *human security* in all its aspects, ranging from health, to social and economic aspects and the infringement upon other basic human rights. In the case of the Caspian Sea this is, for example, manifested in a sharp increase in unemployment in the fishing industry because of the drastic decline in stocks which also leads to a recession in the shipbuilding industry and so on. Other examples are the adverse effects of pollution and flooding on the recreational and tourism industry, the direct health risks to the inhabitants, environmental migration caused by the desertification and salinization of agricultural land, and the unhealthy and perilous labor in the oil and gas industry.[61]

2.5 Analytical approach and containment

The competition over the exploitation of the hydrocarbon deposits under the seabed of the Caspian as well as the differing positions on the judicial status and the delimitation of said Sea, pose a certain threat to the security of the states and societies in the Caspian Region. Both aspects interact with other threats to security and stability in the region such as the autocratic

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58 See: Hunter, Shireen T., "Security and the Environment in the Caspian Sea", in: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit., p. 122.

59 See: Zonn, Igor S., "Ecological Consequences of Oil and gas Development", in: Ascher/Mirovitskaya (eds.), *The Caspian Sea*, op.cit., p. 71.

60 There are two concepts, or visions of *Human Security*. The broad, "Japanese" vision defined as "freedom from want" and the more tightly focused vision, endorsed mainly by Canada, defined as "freedom from fear". See, for example: Krause, Keith, "Human Security: An Idea whose Time has Come?", in: *S+F Sicherheit und Frieden*, 1/2005, pp. 3et seq.; Brzoska, Michael, "*Human Security* – mehr als ein Schlagwort?", in: Weller, Christop, et al. (eds.), *Friedensgutachten 2004*, Münster 2004, pp. 158et sqq.

61 For a description of the effects of the ecological degradation on the economy and working life of the inhabitants see: Cullen, "The Rise and Fall of the Caspian Sea", op.cit.; Bahro/Lindemann, op.cit., pp. 22et seq.

governments, widespread corruption, bad governance and economic recession. The most acute threat remains the environmental degradation.[62] As mentioned before the scale of ecological disruption is so high in some areas that they have been declared as a "dead zone"[63]—in which no more life is found. But unlike the other threats there is no win-lose situation in this equation.[64] All stakeholders are prone to lose in a continuing destruction of the environment and degradation of the biosphere. Thus this impossibility of a "zero-sum game" could lead the state actors—as well as other stakeholders—into cooperating precisely on the matter of environmental security in the short hope of reversing the deadly trend of ecological destruction and in building confidence between the partners for solving the other contentious issues in the future.

The scope of this work is limited in research time as well as space, thus only a glimpse of the myriad actors and their positions and capacities vis-à-vis the environmental threat can be given. But before I commence on that I would like to draw upon the substantial work done on the concept of cooperation among states and other actors on environmental issues. To be precise, I will be looking at the possibilities of the formation of international environmental regimes.

3. Theory and methodology

Before I go into detail on the possibilities of the emergence of an international environmental regime a short description of why international regimes are needed in the first place, how they come about and what they achieve is necessary. In the theory of international regimes there is no clear-cut definition of an international regime which everybody agrees upon.[65] In general there are different working definitions. They range from the elaborate definition of Stephen Krasner[66] to the pragmatic, but simpler, definition of Robert Keohane.[67] Krasner's more complex definition states that regimes are "implicit or explicit **principles**,

62 See: Barannik, Valeriy et al., "The Caspian Sea Region: Environmental Change", in: *Ambio*, 33(Feb. 2004)1-2, p.46.

63 Cullen, op.cit., p. 34; Bahro/Lindemann, op.cit., p. 24.

64 About the "attractiveness" for some actors of playing a zero-sum game in the Caspian Region see: Kuniholm, "The Geopolitics of the Region", op.cit. pp. 91-116.

65 See: Hasenclever, Andreas/Mayer, Peter/Rittberger, Volker, *Theories of International Regimes*, Cambridge, UK 1997, pp. 11-14.

66 Krasner, Stephen D. (ed.), *International Regimes*, Ithaca, NY 1983.

67 Keohane, Robert, International Institutions and State Power: Essays in International Relations Theory, Boulder, Colo. 1989.

norms, **rules**, and decision-making **procedures** around which actors' expectations converge in a given area of international relations."[68] He goes on in clarifying what he means by principles, norms, rules, and decision-making procedures as well as establishing the relationship between them. But because the correlation between the four terms is transeunt and could not be agreed upon as well as being impractical Keohane set his lean, practical definition against it: "Regimes are institutions with explicit **rules**, agreed upon by governments, that pertain to particular sets of issues in international relations."[69] By reducing his definition to "**rules**, agreed upon by governments" he made it easier to apply this definition of regimes to certain situations on the ground. Nonetheless, one problem with this definition is that more presuppositions have to be made concerning the formation of these agreed upon rules, which might in the process oversimplify the results.

Regimes come about depending on the behavior of the actors concerned. There are three kinds of behavioral models based on assumptions made concerning the nature of state actors and their motivation.[70] In the first, the power-based model, it is assumed that the relative power between the actors creates obstacles for effective cooperation. Power resources can be military-, economy- or knowledge-based. What this behavior implies is that states normally act in a zero-sum way. Regimes play a very minor role in this model. The interest-based model presupposes that actors are self-interested and their preferences and identities (i.e. their interests) are given and constant; unaffected by practices or institutions. In this case, however, regimes can help those states to "coordinate their behavior such that they may avoid collectively sub-optimal outcomes."[71] The third model, knowledge-based, focuses on the origin of interests as perceived by states.[72] It perceives interest as subjective, the formation of interests being a dynamic process influenced by practices and institutions. So in order for regimes to emerge a transfer of behavior from the power-based model to a mix of the interest-based and knowledge-based models has to be achieved.

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68 Krasner, *International Regimes*, op.cit., p. 2, cited in: Hasenclever et al., *Theories of International Regimes*, op.cit., p. 9. (Emphasis added)

69 Keohane, *International Institutions and State Power*, op.cit., p. 4, cited in: Hasenclever et al., *Theories of International Regimes*, p. 12. (Emphasis added)

70 See: Hasenclever et al., op.cit., p. 3.

71 Ibid., p. 4.

72 Ibid., p. 5.

International regimes and international organizations are both international institutions in that they have clear regulations and rules agreed upon by the participants. The major difference between them is that organizations can be actors whereas regimes cannot. Nonetheless both regimes and organizations are referred to as institutions in the daily practices between the participating states.

3.1 Theoretical approaches to environmental regimes

Since the 1970s the global character of environmental pollution and destruction has become apparent. Several actors realized that pollution doesn't stop at national boundaries and subsequently couldn't be managed by national legislation and measures alone. Since the ecological problems became transboundary in character the reaction had to be of a transboundary nature, too. Only through multilateral action could the problem be ameliorated. Examples of such a global or continental character of pollution are the acid rain, the destruction of the Ozone layer, reduction of bio-diversity, desertification and the controversial global warming. During the 1980s and 1990s several international environmental regimes were enacted and came into force. Examples are the Framework Convention on Climate Change 1992 (later Kyoto Protocol), the Convention on the Protection of the Ozone Layer 1985, Convention to Combat Desertification 1994, or the Convention on Bio-diversity of 1992. Although some of these suffer from a lack of commitment or implementation there are others which have been more effective in being able to change governmental policies and redirect the interests of actors for the common good[73] – such as the regime to combat the phenomenon of acid rain in Europe caused by transboundary air pollution.[74]

These increases in transboundary pollution were a byproduct of the rapid economic development in several countries of the north and south. A phenomenon which can now also be observed in the newly independent countries around the Caspian Sea. Awareness, legislation and investments into ecologically sound technologies and economic growth was/and still is minimal.

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73 For a list and description of effective regimes, mixed-performance regimes, and regimes of low effectiveness see: Miles, Edward L. et al., *Environmental Regime Effectiveness. Confronting Theory with Evidence*, Cambridge/Mass. & London 2002.

74 See: Levy, Marc A., "European Acid Rain: The Power of Tote-Board Diplomacy", in: Hass/Keohane/Levy, *Institutions for the* Earth, op.cit., pp. 127-132.

A second phenomenon, besides that of economic growth, has complicated the matter further: the erosion of the possibilities of national governments to influence and take action on all what is happening on their national territory—not just economically. Michael Zürn calls this phenomenon "denationalization"—more commonly it is referred to as globalization.[75] He describes it as the dissolution of the so-called 'matching conditions' in a nation-state, meaning the conditions of congruity between the social and political spheres.[76] Only if the concerns of the national-society coincide with the sphere of action of the nation-state can regulation take place. If, on the other hand, the dissolution of the 'matching conditions' takes place, the want of societies for policies beyond the nation-state, start to be articulated.[77] There is, thus, a positive side to the equation, namely the fact that the dissolution of the 'matching conditions' can be a factor in promoting regime formation. Trans-, multi- or international regulations for problems are sought which national policy cannot cope with anymore.

From the perspective of regulations, there are two kinds of international regimes; those founded on negative regulation and the ones based on positive regulations.[78] Negative regulations are "all regulations, which enable new, larger social and economical interaction by making political boundaries permeable and prevent state-protectionist policies."[79] (The Breton-Wood Institutions apply such negative regulations.) Positive regulations can be understood as "all policies that subordinate a social interaction to a collective regulation to prevent the unwanted effects of these interactions."[80] Basically what this means is that under a regime of negative regulations participating governments have to *refrain from doing* something, whereas in the case of positive regulation regimes they are *obliged to do* something. In general, positive regulations are harder to implement than negative ones. But if the positive regulations are cleverly designed they have a chance of being implemented.[81] The environmental sphere is one such area where this can and has been achieved.

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75 Zürn, Michael, Regieren jenseits des Nationalstaates. Globalisierung und Denationalisierung als Chance, Frankfurt am Main 1998, p. 9.

76 Ibid. p. 10.

77 Ibid. p. 17.

78 Ibid. pp. 24 sq. & 180.

79 Ibid., p. 180. (Translation by author)

80 Ibid., p. 180. (Translation by author)

81 Ibid., p. 25. See part 3.2. for further clarification of the problems of implementation.

International environmental regimes come into being when the participating actors realize the benefits from such a cooperation. Since benefits are most often measured in economic terms it becomes harder to achieve a common interest between states with stark differences in economic productivity.[82] This can lead to a selfish pursuit of one's own interests without regard for the other. One consequence of such a selfish policy could be that the end output is not favorable to any of the actors. Forming a regime can help produce a collectively desirable output.[83] There are of course different degrees of incentives for states to cooperate in an environmental regime. Elements that determine this are: how directly a participating sate is affected by the environmental pollution, the costs of ecologically sound technologies or the general economic disadvantage a state will experience from implementing the regulations of the regime. The result of these subjective motives can range from the phenomenon of free-riders, to a regime with only negative regulation, to no cooperation at all, or worst to no concern for/or realization of the problem in the first place. Methods to counter these effects could be: playing the "normative" and "fairness card" by a strongly affected actor, using the scientific argument by resorting to international networks of experts, or through the role model behavior of a more powerful and influencing actor in the affected area.[84]

Once an international environmental regime has been established it can give incentives for the participants to change their interest, even if before the regime formation they perceived these changes as opposed to their so-called "national interests". International institutions can have the effect of overcoming seemingly insurmountable structural obstacles in the constellation of interest of the participants.[85] One has to bear in mind that interests are not constant and timeless. They are constructed through social interactions and arise during negotiations between the actors. The formation of interest is a process.

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82 See: Scharpf, Fritz W., "Politische Optionen im vollendeten Binnenmarkt", in: Jachtenfuchs, Markus/Kohler-Koch, Beate (eds.), *Europäische Integration*, Opladen 1996, pp. 109-140.

83 Zürn, *Regieren* jenseits *des Nationalstaates*, op.cit., p. 182.

84 On the subject of incentives and motives for co-operation in a regime see: Ibid., p. 187.

85 Ibid., p. 193.

3.2 The "3-Cs Analysis" concept

The concept of the "3-Cs" was firstly expounded in the work of Peter M. Haas, Robert O. Keohane, and Marc A. Levy.[86] In short, it summarizes the three major functions of international environmental institutions, which are: increasing governmental **C**oncern, enhancing the **C**ontractual environment, and increasing the national **C**apacity. These three functions were formulated to measure the effectiveness of international environmental institutions. The purpose of this work is to analyze the possibilities of forming such an institution—whether the result would be a regime or an organization is currently negligible. The attempt will be made to turn the question of how to measure effectiveness with the "3-Cs" upside down and to use them to try to determine whether an institution can actually emerge in the first place. Before the "3-Cs" functions are described in detail, a look at the problems of implementation of regime regulations should assist in advancing the above-mentioned attempt.

As was mentioned earlier, the implementation of positive regulation regimes is harder to achieve than that of negative regulation regimes. In a positive regulation regime, participating governments need resources—financial, technological, administrative, and legal—for implementation. The international agreements must be cast into national legislation and the behavior of all actors must change so that the regime can be effective. According to Zürn, the following four tasks have to be taken into account when implementing international environmental regimes:[87]

- the affected stakeholders must become aware of the problem and thus bestow the regulations their legitimacy;
- the degree of complying with the regulations must be verifiable and transparent;
- the operational rules have to adapt to what is currently possible without abrogating the principles and norms;
- a high degree of administrative and technical know-how must be available.

It can be observed that these four problems one is faced with when implementing the regime regulations correlate with the "3-Cs" functions of international environmental institutions.

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[86] See footnote 8.

[87] Zürn, op.cit., p. 192.(Translation by author)

Increasing governmental concern:

Once a regime has been put into place it can have the effect of boosting concern for the problems it was established for. But even before the existence of an environmental regime, one of the preconditions for an initiative to be taken to form a regime, has to be a bolstering of concern for environmental problems. The governments have to acknowledge that those problems do in fact exist and that they are a threat to society. Following this, the concern must be turned into a priority, the ranking of environmental issues on the policy agenda must be elevated. In the words of the three authors of *Institutions for the Earth*, the "governmental concern must be sufficiently high to prompt states to devote scarce resources to solving the problem."[88] Although an immediate bolstering of concern often comes about through drastic changes in the environment or the political and social setting[89] there are other direct, but slower methods of increasing concern.

On the intra-national level these methods can manifest themselves through political action within society and with the government. Concerned groups and individuals can form networks to influence the government through "pointing out environmental hazards and demanding action on them."[90] This could take the form of environmental non-governmental organizations (NGOs) be they national or international, spreading awareness in society and pressuring the government for action. Scientific communities can create, collect, and disseminate knowledge on these issues. Thus a collaboration of normative arguments and scientific evidence can take place. Networks can also give affected groups in society the opportunity to be heard, thus magnifying domestic pressure. Concerned politicians can use these networks as sounding boards for their ideas, to impress the public and link environmental issues to other issues, thus elevating them in the political discourse.

What can be achieved on the international level is a sharing of information on environmental hazards between all governments concerned. Normative pressure and "public shame" can be applied to unconcerned or uncooperative states. Weaker states must be able to put their concerns on the agenda. Also, as on the domestic level, a linkage of issues can be helpful in giving

88 Hass/Keohane/Levy (eds.), *Institutions for the Earth*, op.cit., p. 19.

89 See: Ibid., p. 401.

90 Ibid., p. 19.

more priority to environmental issues.[91] Although all of the above are also indicators of regime effectiveness, they can also act as preconditions for achieving full cooperation between states with the aim of founding an international environmental institution.

Enhancing the contractual environment:

As in the former case, in this case an already existing regime can have a strong positive effect on the contractual environment between the participants. Nonetheless, a certain degree of trust, that is a hospitable environment where the concluding of contracts is at least an option, must be available before a regime is formed. A hospitable contractual environment means "that states must be able to make credible commitments, to enact joint rules with reasonable ease, and to monitor each other's behavior at moderate cost so that strategies of reciprocity can be followed."[92] Governments must trust in the feasibility of making and keeping agreements, they must be convinced that cheating and free-riding is not an option. The belief that the actions of the other may be intended malevolently must be overcome.

This condition seems to be the hardest to achieve without an existing, partly effective, regime already in place. Progress in this area can be partly achieved through the already existing international or regional institutions—no matter what their focus—that the states are members of. Dealing with each other in such forums can help create transparency between the participants. Similarly the application of confidence-building measures in, for example, the security sphere (i.e. through the OSCE) can further enhance the environment for cooperation in other spheres. At first this may to be in contradiction to the hypotheses stated at the beginning of this work; that cooperation in the environmental sphere can lead to cooperation in other spheres. But the dynamic of such a process isn't just one way, and it would be a waste to ignore the already existing institutions, even if their performance in that region might leave nothing to be desired. Certainly an increase in concern—as mentioned above—would be favorable for reaching an environment of trust and cooperation. As would a sharing of information and costs concerning environmental problems. Zürn adds a "4th C" to the "3-Cs" concept which he terms "compliance management".[93]

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91 Most of these suggestions are taken from Hass/Keohane/Levy, op.cit., pp. 399et sqq.

92 Hass/Keohane/Levy, op.cit., p. 19.

93 Zürn, op.cit., pp. 195 et seq.

With this he means that a deviation from the regulations must be treated with flexibility. A regime cannot come into being if the expectations are too high to begin with, and if the participants under present conditions don't have the means to fulfill the regulations. Thus the feasibility of a regime must also be taken into account under the aspect of "being able to comply". For the purpose of this analysis this function is considered as part of the wider function of enhancing the contractual environment and that of capacity-building, thus it will not be dealt with separately here.

Sufficient political and administrative capacity:

When acceding to an international environmental institution, states have to make several adjustments in their domestic and foreign policy. In order to implement international rules and regulations, accepting norms and principles, the capacity of states must be built up and enhanced. One effect of enhancing the political, legal, and administrative capacity of governments is to strengthen the legitimacy towards their subjects as well as the trust in their own officials to apply the states policies. Building up capacity—even before the formation of a regime—can be achieved through various means such as the transfer of technical, scientific, and financial resources to weak governments; providing policy-relevant information and expertise; providing training programs and research grants for administration members; boosting bureaucratic power of domestic allies, and building private sector capacity. In addition to that, relying on and developing of networks with the bigger international institutions such as the UNDP, UNEP and the World Bank, can be an asset.[94]

The building of capacity is not just limited to the governments. It also implies that "actors in civil society [must be able and allowed by the state] to play an effective role in policy making and implementation."[95] They must be able to criticize their governments on action or inaction concerning environmental problems. They must also be able to participate in raising alarm about environmental problems, finding solutions and implementing them without being hindered or repressed by the state apparatus.[96] This can take many forms, from cooperation

[94] These are some of the suggestions found in: Hass/Keohane/Levy, op.cit., pp. 404 et sqq.

[95] Hass/Keohane/Levy, op.cit., p. 20.

[96] Ibid., p. 20.

with networks of international environmental institutions, through lobbying at the level of national and provincial governments, raising awareness in society by using the national and local media, to training and education programs in the environmental sphere on the local level.

As has been stated before, the problems of implementation faced by a regime in its formative phase are similar to the functions used to measuring the effectiveness of existing regimes. None of these concepts were originally intended for exploring the possibilities of a regime coming into being in the first place. In the following chapter the attempt will be made to apply these concepts to the situation of the five riparian states of the Caspian Sea in relation to the environmental issues facing the region.

4. Concern, trust, and capacities: Three prerequisites for a shared ecological agenda of the five Caspian states

What is the situation on the ground? What elements can be helpful in furthering a regime formation and which are more an obstacle to such a process? By taking an exemplary look at the different situations in the five riparian states of the Caspian Sea, an attempt is made to identify the assets and obstacles for a possible cooperation and future environmental regime formation. After examining the degree of awareness and concern as well as the priority rank of environmental issues compared to other policy issues in the region, a look will be taken on the climate of trust and transparency between the state actors—how favorable is the contractual environment? Finally the political, administrative, and financial capacities of the region in environmental issues are assessed. This will be supplemented by an appraisal of the already existing Caspian Environment Program (CEP).

4.1. Different modes of concern and the primacy of economic growth

The concern for environmental problems, the awareness of the dire consequences of pollution, and the use of financial and administrative resources for combating ecological hazards by the government of the five littoral states of the Caspian Sea is in need of advancement. Although they all have established agencies concerned with environmental and ecological issues, what these are mainly lacking are political leverage and adequate resources to carry out their respective tasks. Therefore rapid economic

development and growth, without serious measures to counter the negative effects on the ecology, take precedence over all else.[97] There are, however, certain degrees of difference between the newly independent states, the Russian Federation, and the Islamic Republic of Iran. Several socio-economic and political reasons account for these differences.

The priority of the economy at the expense of environmental concerns

The main reason why the newly independent states of Azerbaijan, Kazakhstan, and Turkmenistan have a different perspective on the issue concerned is that all these states possess, or have a claim on, offshore oil or gas fields in their respective, self-defined, national sectors of the Sea.[98] As has been mentioned above, the exploitation of these resources exhibits one of the greatest risks for the ecological environment of the Sea. Iran, the odd man out, would receive almost no share of hydrocarbon deposits if the Sea was divided according to the median line concept—one of the reasons why this southern riparian of the Sea is the strongest advocate for multilateral cooperation on environmental and other issues pertaining to the Sea.[99] Another reason is that the newly independent states that have suffered under the centralized economic system of the Soviet Union and their unfortunate peripheral status as mere sources of raw materials, are aspiring to becoming economically viable nations and thus increase their independence from Russia.[100] The still notable amounts of hydrocarbon resources in the region[101] must have seemed like a gift from heaven for these fledgling states to be used as a means to shake off the Russian stranglehold on their economies at the beginning of the 1990s.

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97 Zonn, "Ecological Consequences", op.cit., pp. 65-77.

98 See, for example: Bahro/Lindemann, op.cit., pp. 24 et seq.

99 Eric Sievers goes so far as stating: "Iran has been the most consistent voice for the Caspian Environment on the world stage." Sievers, Eric W., "The Internationalization of Environmental Politics in Central Asia and the Emerging Caspian Environment Program", in: *The Iranian Journal of International Affairs*, (Fall 1999) No. 3, p. 398. See, also: Mojtahed-Zadeh, Pirouz, "Iranian perspective on the Caspian Sean and Central Asia", in: Kobori/Glantz, op.cit., pp. 105-122.

100 See: Müller, Friedemann, "Ökonomische und politische Kooperation im Kaspischen Raum", in: *Aus Politik und Zeitgeschichte*, (16. Oktober 1998) B 43-44/98, S. 26 et seq.

101 See Chapter 2.1 on the estimates of oil and gas reserves in the Caspian Sea region.

When one takes a look at the composition of the gross domestic product (GDP) per economic sector for the year 2004[102] in the three newly independent states, the dependence on hydrocarbons and their byproducts becomes apparent.[103] In Azerbaijan, the industrial sector provides for 45.7 percent of the GDP, the largest of the three main economic sectors—the others being agriculture and services. Azerbaijan's main industries all pertain to the extraction, refinement, production, and transportation of petroleum and natural gas. Up to 90 percent of its exports consist of oil and gas. The pivotal importance of the hydrocarbon industry for Azerbaijan cannot be understated. As an example, when searching the official web site of the President of the Azerbaijan Republic, Ilham Aliyev,[104] under the topic of presidential priorities, one finds the so-called "oil strategy".[105] Provided under this topic is information on the several Caspian oil contracts, as well as the shares of oil companies in the more than twenty offshore oil fields Azerbaijan claims its own. There is almost no information on the activities of the President concerning environmental priorities or ecological awareness, neither is there a link to the web site of the Ministry of Ecology and Natural Resources of Azerbaijan Republic.[106]

In Turkmenistan, the industrial sector accounts for 42.7 percent of the GDP[107]—this is also the largest of the three. The major industrial activities are extraction of natural gas and oil as well as the production of petroleum products. Main export

[102] The following economic data are from the CIA-World Factbook, entry "Azerbaijan". http://www.cia.gov/cia/publications/factbook/index.html (last accessed: 29.06.05)

[103] See, for example: Waelde, op.cit., p. 37 et seq.

[104] Ilham Aliyev, President of the Republic of Azerbaijan. http://president.gov.az/index_e.html (accessed: 29.06.05)

[105] http://president.gov.az/s13_the_oil_strategy/_oilandeco_e.html (accessed: 29.06.05) This information can also be accessed through other links on the site such as: http://president.gov.az/s29_information/_information_e.html (accessed: 29.06.05)

[106] The first responsibility of the Ministry is "To carry out state policy on the exploration of natural resources, its use, rehabilitation and protection and the provision of environmental safety and conservation of biological diversity." If the combination of ecological issues and natural resource exploration (which would mainly consist of oil) is to the benefit or detriment of the environment remains to be seen. http://eco.gov.az/v2.1/en/ (accessed: 29.06.05) In Kazakhstan and Turkmenistan the respective Ministries are also both responsible for Natural Resources and Environmental Protection. See Chapter 4.3. for more on the merger of resource and ecological issues in the CIS.

[107] CIA-World Factbook, op.cit., entry "Turkmenistan".

commodities are gas, crude oil and petrochemicals. Another economically important commodity in Turkmenistan is cotton. This product, however, isn't exactly eco friendly either. The environmental hazards which the monocultural production of cotton possess for the Central Asian river basins, the Aral Sea, and the increases in desertification and salinization processes are undisputed.[108] In the case of Kazakhstan, one finds a similar pattern when looking at the Caspian Sea provinces (oblystar) of Atyrau Oblysy and Mangghystau Oblysy—although the vastness of this country's size and resources are cause for a more diversified economy than in the other two cases.[109] Almost all the Kazakh oil fields are located in these two provinces and off the shore in the Caspian Sea.[110] Estimates of oil resources in Kazakhstan range from 9 to 17.6 bbl, the highest in the entire Caspian region.[111]

Russian and Iranian economic interests in the Caspian Sea are in comparison, of lesser importance. Both of them possess large hydrocarbon resources elsewhere[112] as well as a more diversified economy. Their economic interests concerning the Sea lie more in the sectors of fishing and agriculture in the coastal areas.[113] Both sectors are threatened by the pollution caused by the oil and gas industry as well as other ecological hazards. This partly explains why these two countries are at the forefront of

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[108] See, for example, Glantz, Michael H., "Creeping environmental problems in the Aral Sea basin", in: Kobori/Glantz, op.cit., pp. 25-52; Tsukatani, Tsuneo, "The Aral Sea and socio-economic development", in: Kobori/Glantz, op.cit., pp. 53-74. See, also: Bahro/Betke/Giese, *Umweltzerstörungen in Trockengebieten Zentralasiens*, op cit.

[109] CIA-World Factbook, op.cit., entry "Kazakhstan". Other major revenues come from the *agricultural* sector (livestock and grain), extraction of other minerals and metals, as well as light industry. Still, oil and oil products account for 58 percent of all export commodities.

[110] See: Bahro/*Lindemann*, op.cit., pp. 24 et seq.

[111] EIA, *Caspian Sea* Region Survey, December 2004, op.cit.

[112] Proven reserves of petroleum in Russia—mainly Siberia—range between 60 and 72.3 bbl. Those **in** the Caspian region are estimated at 0.3 bbl. In the case of Iran (Persian Gulf) the estimates range between 105 and 132.5 bbl, 0.1 bbl of which are estimated to lie in the Caspian Sea. EIA, World Proved Reserves of Oil and Natural Gas. Most Recent Estimates (2003-2005).
http://www.eia.doe.gov/emeu/international/reserves.html (accessed: 05.06.05)

[113] The different levels of economic development and priorities between the five littoral states *pose* a further obstacle for cooperation. According to Fritz Scharpf "positive regulations beyond the nation state cannot be realized between states with different [degrees] of economic productivity." Cited in: Zürn, op.cit., p. 183. (translation by author)

pushing environmental issues onto the Caspian agenda. For the three Turkic-Republics, the Caspian Sea is the only, or at least major, economic asset in the region. Thus the priority of economic exploitation is highest in those countries, being practiced at the expense of the environment. The attitude exists that they cannot afford to concern themselves with the environmental hazards of oil and gas extraction at the expense of their economic growth and sovereignty.[114]

Let us take a look at the role of a non-state actor in shaping and boosting concern for environmental issues in the region: the international oil companies.

The ambivalent role of international oil companies:

Again taking Azerbaijan as an example one finds that BP (formerly British Petroleum), the largest foreign investor in the country, is the leading company in the AIOC consortium with a share of 34.1 percent.[115] The company also owns the largest stakes in the Baku-Tiblisi-Ceyhan pipeline (BTC) which started operation in May 2005.[116] Both projects have been repeatedly attacked by concerned environmental NGO's in Azerbaijan and Georgia.[117] The government of Azerbaijan, however, does not share these concerns. Considering that the presidential family, the Aliyev clan, own most of SOCAR, the state-owned oil company

[114] For this appraisal, see: Saiko, Tatyana A., "Environmental Problems of the Caspian Sea Region and the Conflict of National Priorities", in: Glantz/Zonn, op.cit., pp. 41-52.

[115] n.n., "Azerbaijan Oil Contracts", on: Azerbaijan International, Summer 1998.
http://www.azer.com/aiweb/categories/magazine/62_folder/62_articles/62_socar_aioc.html (accessed: 18.05.05)

[116] The share of BP is 30.1 percent, that of SOCAR 25 percent. The pipeline starts at the Sangachal Terminal near Baku, passes through Georgia and terminates at the Mediterranean port of Ceyhan in Turkey. It is 1,768 km long, crosses 2,700 m-high mountains and 1,500 small rivers. The BTC took 10 years to build and almost US $3 billion. Escobar, Pepe, "The Roving Eye", op.cit.; Böhm, Peter, "Keine Chance mehr für James Bond", in: *die tageszeitung*, 25.05.2005.
http://www.taz.de/pt/2005/05/25/a0093.nf/text (accessed: 23.06.05)

[117] See, for example: WWF Germany, Position Paper on the BTC, op.cit.; Vogt, op.cit.; Isayev, Samir, "NGOs Seek to Halt Oil Drilling on Azerbaijan Nature Reserve", in: *Give & Take. A Journal on Civil Society in Eurasia*, 3(Winter 2001)4, pp. 31-33. See also the panel discussion organized by ISAR (Initiative for Social Action and Renewal in Eurasia): *Caspian Natural Resources: Sustainability and Accountability*, Washington, DC, 29.07.2002.

with a share of 10 percent in AIOC and 25 percent in the BTC,[118] this is not surprising. BP, under its Associate President David Woodward, on the other hand seems to react to and forestall the concerns of the NGOs.[119] On behalf of their partners in the exploration of offshore oilfields and the construction and maintenance of the BTC pipeline BP offers cooperation with national and international NGOs in implementing the BP Community Investment Programme (CIP).[120] This program encompasses the development of communities which lie close to the production facilities and pipelines, supporting private enterprise, and improving administrative capacity and transparency. Two reasons make these commitments seem somehow sanctimonious. First, looking at the close collusion between BP and the presidential family[121] and taking into consideration the lack of political freedom and good governance in the country,[122] it is hard to believe that the CIP of BP would really amount to much. Furthermore, the BTC is exempt from national legislation and exists in its quasi own sovereignty.[123] Reports from environmental NGOs, foreign media, and local residents show that the environmental hazards posed by the BTC for example, are not ameliorated by the measures taken by BP and the other partner companies.[124] The other reason which casts doubts on its success is the amount invested in this CIP. Until 2003 BP invested at least US $21 billion in Azerbaijan alone for the diverse oil, gas, and pipeline projects[125] whereas the

[118] Escobar, op.cit.; n.n., "Azerbaijan Oil Contracts", op.cit.

[119] See the position of Barry Halton, Regional Affairs Director of the BTC project for BP at the ISAR panel discussion: *Caspian Natural Resources*, op.cit., pp. 8-11.

[120] The Community Investment Programme of BP in Azerbaijan, Georgia, and Turkey. http://www.bp.com/sectiongenericarticle.do?categoryId=430&contentId=2000578#2002372 (accessed: 30.06.05)

[121] Some go as far as describing the BP chairman David Wooodward as "the viceroy" of Azerbaijan. Escobar, op.cit.

[122] On the situation of political freedom, democracy, and good Governance in Azerbaijan see, for example, the following articles from the web site EurasiaNet.org: Abbasov, Shahin, "Western Pressure Grows for Fair Elections in Azerbaijan", 30.06.2005; Ismailova, Khadija/Abbasov, Shahin, "Azerbaijan's Political Temperature Rises as Parliamentary Election Campaign Looms", 23.05.2005; n.n., "Azerbaijan's New President Expresses Belief in 'Lucky Future', as Crackdown on Opposition Continues", 03.11.2003.

[123] Escobar, op.cit.; Vogt, op.cit.

[124] WWF Germany, Position Paper, op.cit.; Vogt, op.cit.

[125] BP Azerbaijan, Sustainability Report 2003

investments into the CIP in Azerbaijan amount to US $2.71 million, and about another US $4 million in Georgia and Turkey.[126]

What becomes obvious from the above examples is that the reason why concern for environmental problems doesn't feature high on the political agenda of at least three of the five riparian states is strongly related to the drive for economic progress through development of the hydrocarbon industry at all costs – financial, social, and ecological. Oil and environmental concern for the Caspian Sea cannot be separated.[127]

The Islamic Republic of Iran: An environmental agenda?

A possible different perspective on the priority of environmental policies can be found in the Islamic Republic of Iran.[128] As has been mentioned before, Iran takes a somewhat different view on several issues concerning the Caspian Sea—be it the legal regime, the exploitation of the hydrocarbons, or the environment. It seems safe to state that of all the five riparian states, Iran seems to be the one most bent on cooperation initiatives and negotiations.[129] It was the Iranian government that embarked upon the notion of creating a Council of Caspian Sea Countries (CCSC) in 1992, including all five states. Although its functions were not clearly defined by Iran, the idea was that it could act as a "forum to discuss matters related to the common interests of the

http://www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/S/Sustainability_report_azerbaijan_english.pdf (accessed: 06.06.05)

126 Ibid.

127 Thomas Waelde takes a somewhat different perspective on the role of the oil and gas deposits in the region. He asks if they can be used as a "lever for prosperity or conflict". His conclusion focuses on the role of Western states through "institutional support in terms of introducing the rule of law, [...] to be anchored in institutions and rooted in culture, to both the internal and international relations of the Caspian states and societies." The role of oil and gas in this constellation is in "habituating the political and administrative elites of the Caspian states in understanding, appreciating and [...] accepting the role of law in developing prosperity through peace and stability." All cited in: Waelde, op.cit., pp. 29 & 48.

128 All information on the environmental policy of the Iranian government predates the president-elect Mahmoud Ahmadinejad.

129 See footnote 98. For a certain change of the stance on cooperation see the chapter "The Position of Iran" in: Aghai-Diba, op.cit., pp. 34-38. There he argues that since March 2001 Iran has taken a more "selfish" position on the Caspian Sea resources and legal regime—thus being the last of the five to follow that path.

riparian states"[130]—without extra-regional interference. Unfortunately the Council never came into being. A rather successful achievement was the final signing of the draft of a Framework Convention for the Protection of the Marine Environment of the Caspian Sea in Tehran on 4 November 2003.[131] The document was ratified by Iran's Islamic Consultative Assembly in April 2005.[132] Ratification in the other four countries is still pending.

The reasons for Iran's drive towards some form of cooperation in the region are numerous.[133] Certainly the international political isolation of the regime in Tehran[134] is one of them. Another important factor is the afore mentioned lack of substantial offshore deposits of gas or oil in its hypothetical sector of the Sea. The Iranian coast of the Caspian Sea—consisting of the provinces of Guilan, Mazandaran, and Golestan—is one of the most fertile regions of the country with a mild climate—producing diverse agricultural products, such as rice, fruits, cotton, tobacco, and silk.[135] Other economic activities are the fish industry, which plays an ever important role.[136] The coast is also considered the major recreational and vacation area by the residents of Tehran and other large cities to the south, and

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130 Cited in: Mojtahed-Zadeh, "Iranian Perspectives", op.cit., p. 110. See, also: Mojtahed-Zadeh, Pirouz, "The Caspian Sea Legal Regime: A Geographical Perspective of an Obstacle in the Way of Regional Cooperation", in: *Iranian Journal of International Affairs*, spring 2001, no. 1, p. 23.

131 Framework Convention for the Protection of the Marine Environment of the Caspian Sea.
http://www.caspianenvironment.org/newsite/Convention-FrameworkConventionText.htm (accessed: 10.07.05)

132 n.n., "DoE head calls approval of Caspian Sea Convention by Iran's Parliament great achievement", in: *Payvand's Iran News*, 12.04.05
http://www.payvand.com/news/05/apr/1078.html (accessed: 07.06.05)

133 See, for example, the chapter "Iranian Policy in the Caspian Sea: Negotiations, Negotiations, and More Negotiations", in: Aghai-Diba, op.cit., pp. 130-149.

134 See: Müller, "Ökonomische und politische Kooperation", op.cit., pp. 32 & 34.

135 For more on the Caspian provinces in Iran see: Ehlers, Eckart, "Nordpersische Agrarlandschaften. Landnutzung und Sozialstruktur in Ghilan und Mazandaran", in: *Geographische Rundschau*, 3(1971), pp. 329-342; Peyvastehgar, Yaghowb, *Entwicklung von Strategien und Maßnahmen für die regionale Planung in den iranischen Provinzen Gilan und Mazandaran zur Bewältigung der durch den Anstieg des Kaspischen Meeres verursachten Zerstörungen und Flächenverluste*, (dissertation) Dortmund 2001.

136 On the Iranian caviar business see: AFP, "Iran's Caspian caviar business on the rocks", op.cit.

the whole region is highly populated.[137] Environmental threats to this region are posed by the rising sea level,[138] the decline in fish stocks, and the pollution of the coast by oil and byproducts deposited on the Iranian coast. This is due to the counter-clockwise current of the Sea, which transports the oil from the Azeri oil fields, offshore pipelines and refineries. It seems clear that Iran has the most to lose from a lack of cooperation and the most to gain from an international environmental regime.

This Iranian concern for the environment could be turned into an asset. According to Dr. Nasser Hadjizadeh Zaker, Head of the Iranian National Oceanographic Center, environmental issues pertaining to the Caspian Sea have a high priority on the Iranian policy agenda in the Region.[139] Furthermore, the policy of Iran in relation to the Caspian Sea environment has been one of cooperation since the last two decades.[140] Still a somehow ambiguous light is thrown on the degree of concern in Iran for Caspian environmental issues by the following event. In early May 2005, an International Conference on the "Rapid Sea Level Change"[141] in the Caspian Sea was conducted in Rasht, Guilan province. The aims of the Meeting were to determine the origin of sea and lake level change, its steering mechanism, whether there is a synchronicity with global climate change and tectonic processes, the consequences for the overall environment, and its impact on coastal management, human society and human responses.[142] Although the objectives stated included the socio-political aspects of the sea level change, from the more than fifty

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137 The Iranian part of the Caspian Watershed is populated by 11 million, that is ca. 17 percent of the total population of Iran. Kroonenberg, Salomon B. (ed.), *International Conference on Rapid Sea Level Change: a Caspian Perspective*, Rasht, Iran 2005, p. 115. See, also: Iranian Cultural Information Center. http://persia.org/Geography/pop.html (accessed: 06.06.05); Population Density Map of Iran at: http://www.lib.utexas.edu/maps/middle_east_and_asia/iran_population_density_2004.jpg (accessed: 06.60.05)

138 See the International Conference on Rapid Sea Level Change held in Rasht, Iran in May 2005.

139 Interview conducted with Dr. Nasser Hadjizadeh Zaker, head of the Iranian National Oceanographic Center, via Email on 4 June 2005.

140 Ibid.

141 Kroonenberg, *International Conference on Rapid Sea Level Change*, op.cit. The conference was organized by the UNESCO, the International Union of Geological Sciences (IUGS), and the International Union of Science (ICSU). It is interesting to note that one of the co-sponsors, besides the University of Guilan and the CEP, was Royal Dutch/SHELL. Besides participating with one scientist at the meeting, another multinational oil company, ExxonMobil also sent a representative.

142 Kroonenberg, op.cit., p. 2.

lectures and presentations held between 2 and 9 May, only three vaguely concerned themselves with these aspects.[143] In addition participants of the conference told me that no politician, or political representative—not even local—was present at the event.[144] From the five riparian states only Iran and Russia participated with large delegations of scientists, Azerbaijan sent three participants, none arrived from Kazakhstan and Turkmenistan.[145] What one could conclude from this is that in the epistemic communities of Iran and Russia—as well as in several "Western" countries—the concern for environmental issues on the Caspian Sea is present, whereas it seems to be lacking on the political level of all five littoral states.

To conclude it is obvious that there are different modes of concern and awareness between the five riparian states.[146] On one side there are the three newly independent states of Azerbaijan, Kazakhstan, and Turkmenistan, whose concern for environmental issues seems almost marginal and perfunctory. On the other side there is Iran, where one finds a higher degree of concern, stemming both from political and economical reasons. The Russian Federation has a somewhat ambivalent stand between the two poles, encouraging environmental policies on the one hand and following its own plans for resource exploitation on the other. It should also not be forgotten that the largest part of external pollution of the Caspian Sea comes from the Volga River, which lies completely on Russian territory.[147] To transcend these different perceptions the awareness for the transboundary character of the environmental issues must be increased in all states. NGO networks, both national and international can contribute to spreading this awareness. Another method could lie in linking different issues of shared concern, like the negative economical impacts of ecological threats and thus elevating the concern for environmental issues.

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[143] Those were: Leroy, Suzanne, "Rapid Environmental Changes and Civilization Collapse: Can we Learn from Them?"; Alborzi-Manesh, Mitra, "Caspian Sea Integrated Coastal Zone Management"; Ownegh, M., "Caspian Sea Level Stabilization Strategy: Synergy of Science, Politics and Technology for Caspian Eustatic Syndrome", all in: Kroonenberg, op.cit.

[144] Conversation with Prof. Eckart Ehlers and Kai Zander in June 2005.

[145] Kroonenberg, op.cit.

[146] See, for example: Askarov, Gorkhmaz, "Border Games in the Caspian Sea: Newly Independent States vs. Russia and Iran Co.", n.d., published on the web page of the US-Azerbaijan Council. http://ourworld.compuserve.com/homepages/usazerb/423.htm (accessed: 06.06.05)

[147] See Chapter 2.3.

4.2. Obstacles and examples of regional cooperation

Massume Ebtekar, Vice-president of Iran from 1997 to 2005 and in charge of the Environment Protection Organization[148]—the Iranian equivalent of an environmental ministry—stated in an Interview in June 2005 that "international cooperation [on environmental issues] is a **must**"[149] and that such issues are global in character. She further emphasized the bilateral cooperation on environmental technologies with the EU, the World Bank, and the United Nations. Under her auspices an annual International Environment Fair was enacted in Tehran. Asked about the failed reform attempts by the outgoing President Mohammad Khatami, she explicitly states that this failure cannot be applied to the environmental policy: "In the environmental policy we managed to achieve [reforms]—with changes in the heads as well as in [policy] implementation."[150] As has been mentioned before,[151] Dr. Zaker of the Iranian National Oceanographic Center also stressed the importance of cooperation with other littoral countries in addressing the environmental issues. What then are the major obstacles standing in the way of cooperation, and what levels of cooperation do already exists?

The ambivalence of Russia's Caspian policy:

Certainly an important factor contributing to the lack of trust and cooperation in the region is the path of classical power politics pursued by the state actors—resenting any foreign intervention in their "internal affairs", even when there is a dire need for change.[152] First, there is the drive of the three Turkic-Republics to increase their independence from Russia. Any form of institutional cooperation with the former center of power in

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148 Environment Protection Organization/Department of Environment http://www.irandoe.org/en/index.htm (accessed: 06.06.05)

149 Ebtekar, Massume, "Internationale Kooperation ist ein Muss", Interview with the Iranian Vice-president and Head of the Environment Protection Organization, in: *Frankfurter Allgemeine Zeitung (FAZ)*, 09.06.2005, no. 131, p. 14. (bold by author)

150 Ibid.

151 See above Chapter 4.1.

152 See: Halbach, Uwe, "Stabilitätspolitik in Zentralasien und Kaukasien im Rahmen der 'Anti-Terror-Allianz', *SWP-Diskussionspapier* 2002. http://www.swp-berlin.org/produkte/diskussionspapier.php?id=4223-&PHPSESSID=6a405a132085611bc38cb8232b4ee858 (accessed: 06.06.05); Haji-Yousefi, Amir M., "Cooperative security in the Persian Gulf and Caspian Sea regions", in: *The Iranian Journal of International Affairs*, (Fall 2002 – Winter 2003) Vol. 14, No. 3-4, pp. 224-239.

Moscow is eyed warily in the context of keeping their sovereignty. This behavior is encouraged by the somewhat dubious and ambiguous signals coming out from Moscow. Taking a closer look at the Caspian policy of the Russian Federation one can discern three different policy approaches—driven by sectoral interest-groups.[153]

There are those whose focus is on the geopolitical factor, trying to reverse the loss of influence Russia experienced in its so called "near abroad". The methods to reassert the sole "Great Russian"[154] claim on the former Soviet Republics as well as the Caspian Sea range from direct threats—as in the case of the Azerbaijani "deal of the century"[155]—to the resort to economic obstruction and embargo—as in the case of the cut off of the gas pipelines leading out of Turkmenistan into the Federation in March 1997. This is accompanied by diplomatic pressure on the other littoral states to refrain from pursuing a divisional legal policy on the Caspian Sea.[156] They also oppose the allocation of oil and gas contracts to foreign companies—unless, of course, Russian state firms are involved.[157] In the political arena, this policy is supported by the Foreign Ministry as well as nationalist forces, from moderate to extreme. In the economic sphere it is mainly the fishing industry which favors this policy in opposition to the hydrocarbon industry. They favor environmental safeguards plus strict regime rules. In addition this faction also gets support from scientific communities and environmental movements.[158] Yet the embracement of environmental issues by the diverse proponents of this policy approach is not always made with pure intentions. If anything "embracing the rhetoric of environmentalism was a tactic that offered proponents a potentially winning solution on both the domestic and international 'boards'."[159]

The second interest group follow a more pragmatic, economic path aimed at short-term, opportunistic gains.[160] They favor the division of the Caspian Sea into national sectors in

[153] On the Russian policy in the region see: Kreikemeyer, op.cit.; Blum, op.cit.

[154] Blum, op.cit., p. 147.

[155] See footnotes 33 & 34.

[156] The adherents of this policy favor the **condominium** solution. This way, Russia as the strongest member of such a regime, will gain more than an equal share and keep much of its former influence in the Sea. Until recently Russia was the only littoral state with a Navy on the Caspian Sea.

[157] Blum, op.cit., p. 139.

[158] Ibid., pp. 147 et seq.

[159] Ibid., p. 149.

[160] Ibid., p. 146.

order to get quick access to the offshore resources, join in international consortiums, make profit from the transport routes through Russia, and allow for foreign investment. It is most likely this faction which promoted the 1998 agreement on the division of the northern part of the Caspian Sea between Russia and Kazakhstan[161] and the 2003 trilateral understanding on the sub-surface territorial division of the Sea between those two and Azerbaijan.[162] This faction is mainly represented by the Ministry of Fuel and Energy and the oil and gas lobby.[163] Although this interest group seems to favor and further cooperation, one has to bear in mind that there vision of cooperation is based on solely own economic gains, with no regards for other, non-participating states, the environment, or other stakeholders on the societal level.[164]

A third group can be found on the peripheral, provincial level. The Russian cost of the Caspian Sea is formed by the two federal Republics of Dagestan and Kalmykia, and the oblast (province) of Astrakhan. "On the whole, each province has increasingly tended to support the pragmatic policy, as it alone offers quick, and desperately needed revenues."[165] The provinces can assert their interest in the Center through either political patronage connections or economic capacities.[166] Dagestan and Kalmykia both suffer from economic depression on the one hand and political instability or authoritarian rule respectively. Both also suffer from environmental degradation (oil spills and river pollution in Dagestan, desertification in Kalmykia). Although there is a certain federal investment in oil projects in Dagestan—mainly as a bypass route for the pipeline going through Chechnya—"neither Kalmykia nor Dagestan has much leverage in dealing with Moscow."[167] The case in Astrakhan Oblast is different. It's main economic activities are fishing and acting as a transit point for oil, gas, and other products.[168] It is politically

[161] Aghai-Diba, *The Law & Politics*, op.cit., pp. 51 & 58. See also Chapter 2.2.

[162] Blagov, Sergei, "Caspian States Make Progress Towards Accord, but Territorial Differences Remain", in: *EurasiaNet.org*, 15.05.03. http://www.eurasianet.org/departments/business/articles/eav051503.shtml (accessed: 07.06.05)

[163] During the presidency of Boris Yeltsin the financial oligarchy of Russia was also closely associated with this interest group. Blum, op.cit., p. 145.

[164] Blum, op.cit., pp. 143 & 146.

[165] Ibid., p. 150.

[166] Ibid., p. 150.

[167] Ibid., p. 152.

[168] The regional headquarters of LUKoil—the mostly state-owned Russian oil company—are in Astrakhan.

stable and enjoys good connections to Moscow. Astrakhan's stake in the Caspian—besides the economic ones—are ecological. The loss of flora and fauna in the Volga Delta not only affect the breeding grounds of fish but also the recreational landscapes which tourism depends on. Thus, Astrakhan can use its leverage to affect policy in Moscow on the Caspian Sea, but it is also seen by the Center as the key to implementing Russian Caspian policy.[169]

All these partly conflicting policies certainly don't further the trust between the other four littoral states and Russia on cooperation in the region. Only a clear position on these issues can further a favorable contractual environment.[170]

The isolation of the Islamic Republic of Iran

A large obstacle for any constructive cooperation in the region is the international isolation of Iran.[171] This procedure, championed by the Untied States, has been in force since the Iranian Revolution in 1979/80. The starkest example of this with regard to Caspian issues is the bypassing of Iran in every plan for transporting oil or gas from the landlocked water body to the open seas.[172] Building a pipeline through Iran would be the economically most viable, geographically shortest way. An energy infrastructure (refineries, other pipelines, ports) is already in place, and the government is fairly more stable and legitimated than that of the newly independent states.[173] As has been shown before, Iran does have a large stake in cooperation, not least in the

[169] Blum, op.cit., p. 153.

[170] On the important role of Russia in the context of cooperation and a civilized conduct in the region see also: Waelde, op.cit., pp. 39et seq.

[171] Also not benefiting a favorable contractual environment is the political "self-isolation" of the regime in Turkmenistan under authoritarian President Saparmurat Niyazov. See, for example: Bubnov, Vasily, "Absurd isolation of Turkmenistan causes no concern to the rest of the world", 23.04.05 & "Turkmenistan President Needs No One to Guide Him", 16.01.03, both on: Pravda.ru, http://english.pravda.ru/world/20/92/373/15348_turkmenistan.html & http://english.pravda.ru/cis/2003/01/16/42119.html (accessed: 08.06.05)

[172] See, for example: Sievers, op.cit., pp. 397et seq.; Waelde, op.cit., p. 36. The exemption to this situation is the opening of a gas pipeline between Turkmen gas fields and Iranian power plants in December 1997. This will enable Turkmenistan to export its gas by bypassing Russia, and thus breaking Moscow's monopoly as an export route. n.n., "Iran-Turkmenistan gas pipeline completed", in: *Alexander's Gas & Oil Connections*, 3(1998)3. http://www.gasandoil.com/goc/news/ntc80531.htm (accessed: 07.06.05)

[173] Waelde, op.cit., p. 36; Mojtahed-Zadeh, "Iranian perspectives", op.cit., pp. 111et sqq.

environmental sphere. Part of this can also be contributed to the aim of breaking the isolation and sanctions regime by forging closer ties with its regional neighbors.

Unfortunately, the newest developments in the region don't seem to encourage a positive development in that sphere. On the one hand, one has to wait and see what the policy of the President-elect Mahmoud Ahmadinejad on the subject of regional cooperation and environment will be. A greater obstacle for any comprehensive cooperation in the near future could be posed by the veiled and unveiled threats coming from the present US administration[174] against the Iranian regime. Recent developments in Azerbaijan don't seem to be encouraging for a peaceful future for the region. According to former UN weapons inspector in Iraq, Scott Ritter,[175] the US military is preparing a base of operations for air and ground forces in Azerbaijan. Further, US special operations units are training Azeri forces to operate inside northern Iran, an area populated by ethnic Azeris. These developments certainly will not benefit the bilateral relations between Azerbaijan and Iran or the overall contractual environment.

Existing regional cooperation initiatives

Ambivalent policies, historic sensitivities, and political peculiarities aside, there are several already existing international and regional institutions in the region in which several of the five littoral states are members. Organizations such as the Commonwealth of Independent States (CIS), the Economic Cooperation Organization (ECO), the Organization of Islamic Conferences (OIC), or the Organization for Security and Cooperation in Europe (OSCE)—besides fulfilling their regular functions—also serve as platforms for furthering trust and

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[174] See, for example, the allegations made by the journalist Seymour M. Hersh: "Annals of National Security. The Coming Wars", in: *The New Yorker*, 24.01.2005, no. 31. http://www.newyorker.com/fact/content/?050124fa_fact (accessed: 10.07.05); n.n., "Journalist: U.S. planning for possible attack on Iran. White House says report is 'riddled with inaccuracies'", on: *CNN.com*, 17.01.05. http://www.cnn.com/2005/ALLPOLITICS/01/16/hersh.iran/ (accessed: 08.06.05)

[175] Ritter, Scott, "The US war with Iran has already begun", on: *Aljazeera.net*, 19.06.05. http://english.aljazeera.net/NR/exeres/7896BBD4-28AB-48BA-A949-2096A02F864D.htm (accessed: 08.06.05); McGovern, Ray, "Attacking Iran: I Know it Sounds Crazy, But...", on: *TomDispatch.com*, 02.03.05. http://www.tomdispatch.com/index.mhtml?pid=2230 (accessed: 08.06.05)

contact between their members and thus contributing to a positive contractual environment. However, not one of these regional organizations can claim all five riparian states as members.[176] Thus they can not really act as forums for discussing Caspian Sea issues on an equitable basis. The Caspian Environment Programme (CEP) is the only regional institution in which all five littoral states are members and which was explicitly established to deal with issues pertaining to the Caspian Sea.

The CEP[177] was established with the aims of "sustainable development of the Caspian environment, including living resources and water quality, protecting human health and ecological integrity."[178] Through assisting the littoral states, an environmentally sustainable development and management of the Caspian Environment should be achieved. The program was launched in 1995 as a joint initiative of the UNEP, UNDP, the World Bank, the EU-TACIS Programme, and the governments of the five littoral states. It is primarily financed by the EU with ancillary support from the UN agencies. In its first stage until 1998 the aim was to develop national capacities. Regional cooperation became the focus of the latter phase beginning in 1998. In this phase the focus was on transboundary aspects and cooperation. A Transboundary Diagnostic Analysis (TDA)[179] on the regional aspects of the Caspian environment was carried out. The TDA would assist the littoral states as a technical and scientific tool when preparing their National Caspian Action Plans. To further implement the aims and objectives of the program a Framework Convention on the Protection of the Marine Environment of the Caspian Sea was drafted in Moscow in 1999. This was finally signed by all five state in Tehran in 2003. The further aim is to develop a Strategic Action Plan (SAP), based on the TDA and the National Action Plans, to find transboundary solutions to the transboundary environmental problems.

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[176] Iran is neither a member of the CIS nor the OSCE. Russia is neither a member of the ECO nor the OIC. The three Turkic republics are members in all four organizations.

[177] Caspian Environment Programme (CEP) http://www.caspianenvironment.org/newsite/index.htm (last accessed: 08.06.05

[178)] Aims and missions of the CEP http://www.caspianenvironment.org/newsite/CEP-Mission.htm (accessed: 08.06.05

[179] The Caspian Environment Programme, Transboundary Diagnostic Analysis for the Caspian Sea. Volume 1. Executive Summary and Environmental Quality Objectives. Baku 2002.

While this might all sound very encouraging and supportive of the purpose of cooperation on Caspian environmental issues, there are nonetheless a series of flaws in this program.[180] For one the CEP is hardly mentioned in any of the scientific articles dealing with environmental issues or cooperative schemes in the Caspian region.[181] Being the only cooperative project on the Sea in which all five littoral states are active but getting almost no attention in the scientific community seems somehow peculiar. Another observation on the lack of impact of the program is the lack of any information on the National Action Plans on the respective web pages of the environmental agencies[182] of the five states. Besides Azerbaijan the CEP isn't even mentioned on the web pages of Russia or Iran. The reasons behind the lack of impact and attention given to this program can lie in the origin of its establishment by several international organizations. The question should be asked if the CEP and the Framework Convention are driven by international agencies or if they are "country owned and driven"?[183] If the program was not initiated by the states themselves, and is mostly funded from outside, it remains questionable "to what extent state paper commitments for environmental protection will be allowed the force needed to produce reform and environmental security in the region."[184] What seems to be lacking, and what stands in the way of an effective implementation of the programs aims and missions, is a genuine interstate bargaining between the affected states from the beginning. In his evaluation of the CEP, Sievers concludes with following question: "Is the CEP merely an exercise in development agency paper pushing or is it a product of pure interstate bargaining to solve a collective action problem?"[185]

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[180] See, for example: Sievers, "The Internationalization of Environmental Politics", op.cit.; Sievers, Eric W., "Caspian Environment Programme: Prospects for Regime Formation and Effectiveness", in: Ascher/Mitrovitskaya, op.cit., pp. 327-343; Blum, Douglas W., "National, Subnational, and International Politics: Environment Regime-Building in the Caspian Sea", in: Ascher/Mitrovitskaya, op.cit., pp. 313-326.

[181] It is, for example neither mentioned in the Volume by Kobori and Glantz, "Central Eurasian Water Crisis", nor in the works of Gundula Bahro.

[182] See Chapter 4.3. for the URLs and more on the respective environmental agencies.

[183] Sievers, op.cit., p. 399.

[184] Ibid., p. 399.

[185] Ibid., p. 412.

4.3. Capacities for environmental policy implementation

Naturally a ministry of environment or some similar executive body would be responsible in formulating, promoting, and implementing environmental policy as well as normative and legal regulations on the state level. On first sight it seems that all the five littoral states of the Caspian Sea have established such agencies in one form or the other. A closer look reveals blatant shortfalls in these agencies who's foremost responsibility should be environmental protection.

Ministries of natural resources and environment

In May 2000, the then newly elected President of Russia, Vladimir Putin, signed a Decree[186] restructuring the Russian government. One function of this Decree was the abolishment of the Environmental Protection Committee—the Russian federal agency responsible for environmental protection—as well as the Federal Forest Service. Both these agencies where incorporated into the existing Ministry of Natural Resources[187]—the agency originally responsible for natural resources exploitation, particularly hydrocarbons and other minerals. The newly incorporated functions of this federal executive body included such spheres as the study, renewal, and conservation of natural resources; the use and conservation of the inventory of water resources; the use, conservation, and protection of the stock of wooded forests and reproduction; specially protected natural areas, as well as environmental conservation.[188] It seems obvious that the interests and responsibilities of the sphere of natural resource extraction and the sphere of environmental protection stand in contradiction to one another. The Ministry of natural resources will not be interested in any environmental induced restrictions or limitations to its exploration and extraction activities. Since the influence of the partly state owned hydrocarbon companies in Russia (LUKoil, Gazprom) on the government and the Duma is much stronger than that of environmental protection groups, the delegation of the

[186] Decree no. 867, "On the Structure of the Federal Bodies of the Executive Authority", signed by the President of the Russian Federation Vladimir Putin on 17. May 2000. http://www.forest.ru/eng/problems/control/decree867.html (accessed: 10.07.05)

[187] The Ministry of Natural Resources of the Russian Federation. http://www.mnr.gov.ru/ (accessed: 10.07.05)

[188] Ibid. http://www.mnr.gov.ru/part/?pid=398 (accessed: 10.07.05)

responsibility for environmental protection to the afore mentioned Ministry seems to be a strong blow to "any independent environmental control in Russia on the governmental level."[189] Certainly this is not just a lack of concern on the side of the Russian government but also a strong decrease in its capacity to act on environmental issues in the future.[190]

As has been mentioned above the situation is similar in the other three successor states of the Soviet Union.[191] In Azerbaijan the ministry of Ecology and Natural Resources[192] is responsible for both these contradicting spheres. The strong involvement of the President in the oil and gas business doesn't encourage the believe in an increase in the capacities of the ecological sphere in the Ministry in the near future. There exists, however, a joint agreement between the Ministry and the OSCE office in Baku in establishing the joint Aarhus Public Environmental Information Center.[193] The objective of the Center are part of the overall aims of the OSCE to further good governance, democratization and

[189] n.n., "Both Russian Environmental Protection Committee and Federal Forest Service have been eliminated", on: *Forest.ru*, (a Russian environmental NGO), n.d., http://www.forest.ru/eng/problems/control/abolish.html (accessed: 10.07.05)

[190] There is unfortunately no data, at least not on the English sites, on the overall budget, the number of employees, or the division of tasks between the various departments in the Ministry.

[191] Kazakhstan: Ministry of Natural Resources and Environment Protection http://www.president.kz/main/mainframe.asp?lng=en; (accessed: 10.07.05). Turkmenistan: Ministry of Natural Resources Use and Environmental Protection. No web page.

[192] The web page of the Ministry of Ecology and Natural Resources of Azerbaijan is very sophisticated in content and appearance. There exists a special section dealing with the resources and environmental issues on the Caspian Sea (http://eco.gov.az/v2.1/en/caspian/ (accessed.10.07.05)) Although some of the links are still "under construction" one can find information on the CEP, sturgeon stock, and some general information on the Sea.

[193] See: http://www.aarhuscenter.az/index_e.php (accessed: 10.07.05). On the Aarhus Convention see: http://www.unece.org/env/pp/ (accessed: 10.07.05) The UN Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, usually known as the Aarhus Convention, was signed on June 25, 1998 in the Danish city of Aarhus. It entered into force on 30 October 2001. As of November 2004, it has been signed by 40 (primarily European) countries and ratified by 30. It has also been ratified by the European Union, which has begun applying Aarhus-type principles in its legislation, notably the Water Framework Directive. The Aarhus Convention grants the public rights regarding access to information and public participation and access to justice. It focuses on interactions between the public and public authorities.

transparency[194] in the newly independent states. The Center aids this through promoting public access to environmental information and participation in decision-making, and creating a public climate of transparency in environmental affairs. Mainly it acts as a link between the government and non-governmental organizations as well as other national environmental organizations, international organizations and similar institutions in other countries. Another of its task is furthering awareness and capacities in society through free access to environmental information obtained from the Ministry and other sources; distribution of information, and supporting public discussion and participation on environmental issues.[195]

Previously, it was mentioned that in Iran the agency responsible for environmental issues is the Organization for Environmental Protection/Department of Environment,[196] headed by the Vice-president, Massume Ebtekar. The objectives of the Department are the Fulfillment of Article 50[197] of the Constitution of the Islamic Republic of Iran to protect the environment and ensure legitimate and sustainable utilization of natural resources to guarantee a sustainable development process; the prevention of the destruction and pollution of the environment; and the preservation of Iran's biodiversity. Responsible for the Caspian Sea is the Bureau of the Marine Environment,[198] which is part of the Division of Natural Environment & Biodiversity. Its main focus is on the effects the industrial pollution from the Volga and the offshore oil explorations and pipelines will have on the Caspian coastal communities of Iran. Another responsibility lies in the protection of spawning grounds and migration routes for fish and combating illegal fishing. An interesting connection is acknowledged between human security and environmental aspects via population growth and an increase in unemployment in the

194 See: http://www.osce.org/baku/13196.html (accessed: 10.07.05)

195 Ibid.

196 See footnote 147. The department is directly affiliated with the office of the President of Iran.

197 Article 50 states that "In the Islamic Republic, it is considered a public duty to protect the environment where the present and future generations are to have a thriving social life. Thus, any form of activities, whether economic or otherwise, that causes pollution of or irreparable damage to the environment is prohibited." http://www.iranonline.com/iran/iran-info/Government/constitution.html (accessed: 10.07.05)

198 http://www.irandoe.org/en/division.htm#marine (accessed: 10.07.05) The Bureau also concerns itself with the other bordering on Iran.

Caspian provinces and the rise of illegal fishing.[199] The Department consist of four Divisions with 15 separate Bureaus. Adding to that are the Directorates for the Iranian provinces as well as a College and Training Center. [200] One could deduce from this, that a certain administrative capacity for environmental issues exists in Iran.

Financial and administrative capacities:

Probably one of the direst problems that states face when it comes to capacities for environmental policy is the lack of financial means. Partly the agencies concerned with environmental issues are financed by the state through being part of the Ministries for Natural Resources, except in the case of Iran, where the Department of Environment has its own state budget. Another way of direct financing—specially in the CIS Republics—comes from the establishment of environmental funds.[201] These are based on revenues collected from environment fines, payments for emission and discharge of pollution, waste storage, as well as positive incentives such as tax breaks, credits and other benefits to enterprises and private citizens who use environmentally sound technologies.[202] In general the revenues are to low to bolster the over all budget. In Addition the wide spread corruption in the former Soviet Republics further diminishes the revenues attained by such means.[203] For example, according to the Corruption Perception

[199] Ibid. See Chapter 2.4.

[200] For the structure of the Department see: http://www.irandoe.org/en/chart.htm (accessed: 10.07.05)

[201] See, for example: Brinchuk, Mikhail M., "Enforcement of Economic Instruments in Russia". Paper presented at the Third International Conference on Environmental Compliance and Enforcement, April 1994. http://www.inece.org/3rdvol2/brinchuk.pdf (accessed: 10.07.05)

[202] Ibid.

[203] See, for example: Blua, Antoine, "Central Asia: Transparency Report Faults Uzbekistan, Kazakhstan for 'Systemic' Corruption", in: *Radio Free Europe/Radio* Liberty, 2005. http://www.rferl.org/features/2003/02/03022003172500.asp (accessed: 04.07.05) See, also the Global Corruption Reports of the past years (2005-2001) from Transparency International. http://www.globalcorruptionreport.org/ in particular: Ledeneva, Alena, "Commonwealth of Independent States", in: *Global Corruption Report 2003*. http://www.globalcorruptionreport.org/gcr2003.html and Bosshard, Peter, "The environment at risk from monuments of corruption", in: *Global Corruption Report 2005*. http://www.globalcorruptionreport.org/download.html (all accessed: 04.07.2005)

Index (CPI) of Transparency International[204] for the year 2004 Azerbaijan scored 1.9 and ranked 140th in a survey of 146 countries—meaning it belongs to one of the most corrupt countries in the world. Although it has to be considered that not all countries are always included in this survey, mainly because of lack of sufficient data.[205]

A further capacity problem is the lack of adequate administrative and legal personnel in the concerned agencies and departments. When it comes to implementing international environmental agreements into national law this becomes obvious. Turkmenistan for example is party to a large number of international environmental agreements such as the Convention on Biological Diversity, on Combating Desertification, and on Transboundary Movements of Hazardous Waste which are also ratified. On the other hand such agreements as the Conventions on Transboundary Environmental Impact Assessment, on Access to Information, Public Participation in Decision-Making and Access, on Long Range Transboundary Air Pollution, and the Ramsar Convention on Wetlands of International Importance are neither signed or complied to by the Turkmen government.[206] The situation in Azerbaijan is somewhat different. Although a lot of environmental agreements were signed and ratified by the Azeri government, and in 1992 a comprehensive environmental law was passed, no "new legislation reflecting the important economic and political change [has] since been enacted."[207] Political reasons aside, this could be an indicator of the lack of time and administrative capacities to ratify these agreements and turn them into national law. Besides the environmental agreements there are numerous international and regional agreements in other policy fields, from economy to security,

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[204] The Corruption Perception Index is a composite index, drawing on several different polls and surveys from various institutions carried out in the countries concerned. The higher the score the lesser the extent of corruption. http://www.transparency.org/cpi/2001/qanda.html (accessed: 04.07.2005)

[205] Transparency International requires at least three sources to be available for a country before considering the database sufficiently robust for that country to be ranked in the CPI. Op.cit.

[206] See: Sievers, "The Internationalization of Environmental Politics", op.cit., p. 404.

[207] "Kura Basin Report", Annex 2. Comments and additions on legislation. Azerbaijan. http://www.jointrivers.org/eng/docs/inception/kura/app2.php (accessed: 10.07.05); see, also, the legislation comparison tables at: http://www.jointrivers.org/eng/docs/inception/kura/kura-legislation.pdf (accessed: 10.07.05)

which have to be taken into account. A further, large scale agreement, in the form of an international environmental regime on the Caspian Sea—not withholding a legal and an economic one—could be just more strain on already overstrained administrations.

5. Conclusions and follow up questions

The environmental problems of the Caspian Sea are transboundary in nature and thus they lend themselves to a cooperative solution. Besides the ecological, long-term, reasons for solving these problems there are also economic reasons for a quick solution. "The caviar [and fish] industry may be economically more beneficial to the region than offshore hydrocarbon development."[208] The tourism and recreation sectors also depend on a healthy Caspian environment. In the long run, both ecological and economic disruptions can lead to overall threats to human and societal security in the region. The above mentioned reasons should be enough to drive the littoral states to seek a solution for these problems together. Unfortunately that is not the case. There seem to be more obstacles than assets for the individual state actors when trying to reach cooperation on Caspian environmental issues. As has been shown, there are serious hindrances in all three preconditions for a functioning international environmental regime to come into being. Neither is the priority of the environmental issues duly recognized, nor is trust and cooperation between the five states implicit, nor are there enough capacities delegated to deal with these issues accordingly.

Of course, the above analysis could only give a glimpse of the more obvious hindrances to cooperation. Other reasons like the oppressive form of government that exist in different degrees in all five states, the exclusion of many stakeholders from the decision making process, the interference of foreign states in the region, and the armed conflicts in the Caucasus are not less important. Nonetheless, the aim of this analysis was to find out *if* there are environmental incentives for cooperation in the region and what obstacles stand against its manifestation. The following are a selection of those obstacles which necessitate further research and collection of empirical material. This would be essential for understanding the possibilities for cooperation, and thus regime formation, in the region:

[208] Sievers, "The Internationalization of Environmental Politics", op.cit., p. 397.

- The primacy of the hydrocarbon industry: It has been shown that the exploration, extraction, processing, and transportation of oil and natural gas is at the forefront of the national agenda of the Caspian littoral states. This is also supported by a legion of international energy corporations and foreign governments—from ExxonMobil to INPEX[209], from Washington to Beijing—who all show a vivid interest in getting a share of the Caspian pie. Adverse results of this "run for oil" come in form of ecological hazards, political incidents, and the neglecting of other economic sectors. This last development, also know as "Holland syndrome" is a further incentive—besides the environmental and security aspects—for moving away from the almost total reliance on hydrocarbons in these countries. A comparison with the littoral states of the Persian Gulf can possibly be enlightening in this direction. The pivotal role of Iran—being a littoral of both water bodies—in this case seems obvious. To conduct a thorough study of the opportunities for cooperation in the region, the role of all the actors in the energy sector cannot be ignored and necessitates further research.
- The international political isolation: Two of the five states, Iran and Turkmenistan, are to a certain degree politically isolated from the international community. This does not abide without effect on the regional integration of those nations. Particularly in the case of Iran this seems very unfortunate, it being closest to a "driver" in the process of environmental cooperation in the region. Although the reasons and degrees of isolation in both states are different, it is nonetheless an almost insurmountable obstacle in the way of further regional cooperation. Thus a study on cooperation possibilities could focus on regime types in those countries as well as the international motives behind their partial isolation.
- Russia's ambiguous policy: As long as there is no clear and stable Russian policy towards the Caspian region it remains difficult to believe how the other four states can build up the trust and willingness to cooperate freely with the Federation. Yet, the "soft" state character of the Russian Federation, meaning the strong influence sectoral interest-groups have on its decision making process, can also be an asset in giving more weight and influence to direct stakeholders in the region in form of local governments and affected societies. As the

[209] INPEX Corporation is a Japanese energy firm with shares in the Caspian oil fields of Kashagan (Kazakhstan), Azeri-Chirag-Gunashli (Azerbaijan), and the BTC-pipeline. http://www.inpex.co.jp/english/index.html

only decentralized and fairly democratic state in the region, the Russian Federation could/should thus play a more important role in bringing Caspian issues on the agenda.

- The inclusion of other actors: Currently two kind of actors determine the policy agenda on the Caspian Sea: states and private (or partially private) energy corporations. In order for the environmental issues to get more attention and to ascend on the priority list of national agendas, it is essential that other actors, representing different stakeholders, get more influence on the Caspian agenda. These could range from local administrations, representing the people directly living at and of the Sea, to interest-groups of other economic sectors such as tourism and fishing, to various national and international environmental NGOs. Including these actors and stakeholders can heighten the awareness of the national governments and society for environmental concerns.
- The role of international organizations: Even though agreements which are mainly driven by international organizations, and less by the states themselves, tend to be neglected when it comes to implementation, a further involvement of the relevant institutions—UNEP, UNDP, World Bank—should be aimed at. A stronger involvement of the OSCE in the area of environmental and economic security threats in the region could benefit both the four Caspian member states of the organization and the organization itself. This could be seen as partly accommodating the Russian demand to increase the OSCE's activities in the area of the second basket.

At the outset, the hypotheses was expounded that probably one way to reach a multinational cooperation in the Caspian region was through circumnavigating the "hard" policy issues of hydrocarbon resources and the legal ownership by focusing on the "softer" transboundary problems and threats for the environment. It was established that such problems exist and are to some degree also acknowledged by the governments of the five riparian states. Unfortunately the obstacles to boosting the concern for these problems, furthering trust and transparency between the actors and increasing the capacities to deal with them are to high. It is the believe of this author that a cooperative regime in the region cannot be achieved on environmental problems alone. Only a concerted effort on the part of the states concerned to cooperate on the legal, economic, and environmental issues can eventually lead to a cooperation regime also on the politico-security issues.

References

Web news archives:

- Alexander's Gas & Oil Connections: http://www.gasandoil.com/goc/welcome.html
- Azerbaijan International: http://www.azer.com/index.html
- EurasiaNet.org: http://www.eurasianet.org/index.shtml
- Payvand. Iran news, directory and bazar: http://www.payvand.com/
- Pravda.ru: http://english.pravda.ru/

Other web based sources:

- BP: http://www.bp.com/home.do?categoryId=1
- Caspian Environment Programme (CEP): http://www.caspianenvironment.org/newsite/index.htm
- Energy Information Administration (EIA): http://www.eia.doe.gov
- Environment Protection Organization/Department of Environment of Iran: http://www.irandoe.org/en/index.htm
- Russian Forests: http://www.forest.ru/
- Ilham Aliyev, President of the Republic of Azerbaijan: http://president.gov.az/index_e.html
- INPEX Corporation: http://www.inpex.co.jp/english/index.html
- Kura Basin Report: http://www.jointrivers.org/eng/docs/inception/kura/
- Ministry of Ecology and Natural Resources of Azerbaijan: http://eco.gov.az/v2.1/en/
- Ministry of Natural Resources and Environment Protection of Kazakhstan: http://www.president.kz/main/mainframe.asp?lng=en;
- Ministry of Natural Resources of the Russian Federation. http://www.mnr.gov.ru/
- UN Division for Ocean Affairs and the Law of the Sea: http://www.un.org/Depts/los/index.htm
- United Nations Economic Commission for Europe (UNECE): http://www.unece.org/Welcome.html
- United Nations Environment Programme (UNEP): http://www.unep.org/
- WWF Germany: http://www.wwf.de/

Bibliography:

Aghai-Diba, Bahman: *The Law & Politics of the Caspian Sea in the Twenty-First Century. The Positions and Views of Russia, Kazakhstan, Azerbaijan, Turkmenistan, with Special Reference to Iran*, Bethseda/Md. 2003.

Alekperov, Gourban: "Energy resources of the Caspian region and the significance of Turkey for Europe's energy security". In: *Connections*, 3 (September 2004) 3, pp. 115-123.

Ascher, William and Natalia Mirovitskaya (eds.). *The Caspian Sea: A Quest for Environmental Security*, Proceedings of the NATO Advanced Research Workshop in Venice, 15-19 March 1999. Dordrecht et al. 2000.

Askarov, Gorchmaz. "Border games in the Caspian Sea: Newly independent states vs. Russia and Iran". In: *Caspian Crossroads*, 4 (Winter 1998/99) 2, pp. 14-19.

Aydin, Mustafa. "Black Sea and the Caucasus Region: Causes of instability and the ways to deal with them", in: *The Turkish Yearbook of International Relations*, (2000) Vol. 30, pp. 213-225.

Bahro, Gundula and Inge Lindemann. "Ressourcenreichtum und Umweltzerstörung am Kaspischen Meer". In: *Geographische Rundschau*, 56(2004)10, pp. 18-27.

Bahro, Gundula, Dirk Betke and Ernst Giese (eds.): *Umwelt-zerstörungen in Trockengebieten Zentralasiens (West-Turkestan und Ost-Turkestan). Ursachen, Auswirkungen, Maßnahmen.* Stuttgart 1998.

Bahro, Gundula: "Die ökologische Krise des Kaspischen Meeres und der Kaspiregion", in: Bahro/Betke/Giese (eds.), op cit., 1998.

Barannik, Valeriy/Borysova, Olena/Stolberg, Felix: "The Caspian Sea Region: Environmental Change". In: *Ambio*, 33 (Feb. 2004) 1-2, pp. 45-51.

Böhm, Peter: "Keine Chance mehr für James Bond". In: *die tageszeitung*, 25.05.2005.

Blua, Antoine: "Central Asia: Transparency Report Faults Uzbekistan, Kazakhstan for 'Systemic' Corruption". In *Radio Free Europe/Radio Liberty*, 2005. http://www.rferl.org/features/2003/02/03022003172500.asp (accessed: 04.07.05)

Blum, Douglas W.: "National, Subnational, and International Politics: Environment Regime-Building in the Caspian Sea", in: Ascher/Mirovitskaya (eds.), op.cit., 2000, pp. 313-326.

_____ : "Domestic Politics and Russia's Caspian Policy". In *Post-Soviet Affairs*, 14 (April-June 1998) 2, pp. 137-164.

Bosshard, Peter: "The environment at risk from monuments of corruption". In: *Global Corruption Report 2005*. Transparency International, Pluto Press.

Brinchuk, Mikhail M.: "Enforcement of Economic Instruments in Russia". Paper presented at the Third International Conference on Environmental Compliance and Enforcement, April 1994.

Brzezinski, Zbigniew: *The Grand Chessboard. American Primacy and its Geostrategic Imperatives*, New York, 1997.

Brzoska, Michael: "*Human Security* – mehr als ein Schlagwort?". In: Weller, Christop, et al. (eds.): *Friedensgutachten 2004*, Münster 2004, pp. 156-165.

Bulloch, John and Adel Darwish: *Water Wars: Coming Conflicts in the Middle East*, London 1993.

Chufrin, Gennady: "The Caspian Sea Basin: the security dimensions", in: *SIPRI Yearbook 1999: Armaments, Disarmament and International Security*, Oxford & New York 1999, pp. 213-234.

Cullen, Robert B.: "The rise and fall of the Caspian Sea", in: *National Geographic Magazine*, 195(May 1999)5, pp. 2-35.

Dabour, Nabil M.: "OIC Central Asian countries in transition. Integration into the world economy and cooperation with the rest of the OIC countries", in: *Journal of Economic Cooperation among Islamic Countries*, 26 (January 2005) 1, pp. 63-106.

Ebtekar, Massume: "Internationale Kooperation ist ein Muss". Interview with the Iranian Vice-president and Head of the Environment Protection Organization, in: *Frankfurter Allgemeine Zeitung (FAZ)*, 09.06.2005, no. 131, p. 14.

Ehlers, Eckart: "Nordpersische Agrarlandschaften. Landnutzung und Sozialstruktur in Ghilan und Mazandaran", in: *Geographische Rundschau*, 3(1971), pp. 329-342.

Ehrhart, Hans-Georg and Oliver Thränert: "Die Rolle von NATO, EU und OSZE in der Kaspischen Region". In:

Aus Politik und Zeitgeschichte, (16 Oct. 1998) B 43-44/98, pp. 37-46.

Escobar, Pepe: "The Roving Eye. Pipelineistan's biggest game begins". In: *Asia Times Online*, 26.05.2005

Frolov, Anatolii V.: "New Methods for Managing Caspian Sea Level Fluctuations". In: Ascher, Mirovitskaya (eds.), 2000, pp. 79-88.

Glantz, Michael H.: "Creeping environmental problems in the Aral Sea basin", in: Kobori, Glantz (eds.), 1998, pp. 25-52.

Glantz, Michael H. and Igor S Zonn: (eds.): *Scientific, Environmental, and Political Issues in the Circum-Caspian Region*, Proceedings of the NATO Advanced Research Workshop in Moscow, 13-16 May 1996. Dordrecht et al. 1997.

Golubev, Genady N.: "Environmental policy-making for sustainable development of the Caspian Sea area", in: Kobori, Glantz (eds.), 1998, pp. 91-104.

Haji-Yousefi, Amir M.: "Cooperative security in the Persian Gulf and Caspian Sea regions". In: *The Iranian Journal of International Affairs*, (Fall 2002–Winter 2003) Vol. 14, No. 3-4, pp. 224-239.

Halbach, Uwe: "Stabilitätspolitik in Zentralasien und Kaukasien im Rahmen der 'Anti-Terror-Allianz'", *SWP-Diskussionspapier* 2002.

Halbach, Uwe and Friedmann Müller: "Persischer Golf, Kaspisches Meer und Kaukasus – Entsteht eine Region vitalen europäischen Interesses?" *SWP-Studie* 2001/S 01, January 2001.

Hasenclever, Andreas, Peter Mayer and Volker Rittberger: *Theories of International Regimes*, Cambridge/UK 1997.

Hass, Peter M., Robert O. Keohane and Marc A. Levy: *Institutions for the Earth. Sources of Effective International Environmental Protection*. Cambridge/Mass. & London 1993.

Heinrich, Andreas: "Der *ungeklärte* rechtliche Status des Kaspischen Meeres". In: *Osteuropa*, 49 (Juli 1999) 7, pp. 671-683.

Hersh, Seymour M.: "Annals of National Security. The Coming Wars". In: *The New Yorker*, 24.01.2005, no. 31.

Hunter, Shireen T.: "Security and the Environment in the Caspian Sea", in: Ascher, Mirovitskaya (eds.), 2000, pp. 117-124.

Isayev, Samir: "NGOs Seek to Halt Oil Drilling on Azerbaijan Nature Reserve". In: *Give & Take. A Journal on Civil Society in Eurasia*, 3(Winter 2001)4, pp. 31-33.

Jaffe, Amy Myers and Robert A. Manning: "The Myth of the Caspian 'Great Game'. The Real Geopolitics of Energy". In: *Survival*, Winter 1998/99, 18 pages.

Klare, Michael: *Blood and Oil. The Dangers and Consequences of America's Growing Dependency on Petroleum*, New York 2004.

Kobori, Iwao and Michael H. Glantz, (eds.): *Central Eurasian Water Crisis. Caspian, Aral, and Dead Seas*, Tokyo et al. 1998.

Krause, Keith: "Human Security: An Idea whose Time has Come?", *in*: *S+F Sicherheit und Frieden*, 1/2005, pp. 1-6.

Kreikemeyer, Anna: "Konflikt und Kooperation in der Kaspischen Region: Russische Interessenlagen". In: *Aus Politik und Zeitgeschichte*, (16. Oktober 1998) B 43-44/98, pp. 13-25.

Kroonenberg, Salomon B. (ed.): "International Conference on Rapid Sea Level Change: a Caspian Perspective". Rasht/Iran 2005.

Kuniholm, Bruce: "The Geopolitics of the Region", in: Ascher, Mirovitskaya (eds.), 2000, pp. 91-116.

Lanier-Graham, Susan D.: The Ecology of War: Environmental Impacts of Weaponry and Warfare, New York 1993.

Ledeneva, Alena: "Commonwealth of Independent States", in: *Global Corruption Report 2003*. Transparency International, Pluto Press.

Levy, Marc A.: "European Acid Rain: The Power of Tote-Board Diplomacy". In: Hass, Keohane, Levy, 1993, pp. 75-132.

McGovern, Ray: "Attacking Iran: I Know it Sounds Crazy, But...". On: *TomDispatch.com*, 02.03.05. http://www.tomdispatch.com/index.mhtml?pid=2230 (accessed: 08.06.05)

Miles, Edward L. et al.*: Environmental Regime Effectiveness. Confronting Theory with Evidence*, Cambridge/Mass. & London 2002.

Mojtahed-Zadeh, Pirouz: "The Caspian Sea legal regime: A geographical perspective of an obstacle in the way of regional cooperation". In: *Iranian Journal of International Affairs.* Spring 2001, no. 1, pp. 14-37.

Mojtahed-Zadeh, Pirouz: "Iranian perspective on the Caspian Sean and Central Asia". In: Kobori, Glantz. 1998, pp. 105-122.

Mokhiber, Russell and Robert Weissman,: "Of Caviar and Capitalism". In: *CounterPunch*, 18.12.2002.

Müller, Friedemann: "Ökonomische und politische Kooperation im Kaspischen Raum". In: *Aus Politik und Zeitgeschichte*, (16 October 1998) B 43-44/98, pp. 26-36.

Pany, Thomas: "'Pipelinistan' – Das große Spiel um Zentralasien". In: *TELEPOLIS*, 30.05.2005.

Peyvastehgar, Yaghowb: "Entwicklung von Strategien und Maßnahmen für die regionale Planung in den iranischen Provinzen Gilan und Mazandaran zur Bewältigung der durch den Anstieg des Kaspischen Meeres verursachten Zerstörungen und Flächenverluste". (Dissertation) Dortmund 2001.

Ritter, Scott: "The US war with Iran has already begun", on: *Aljazeera.net*, 19.06.05. http://english.aljazeera.net/NR/exeres/7896BBD4-28AB-48BA-A949-2096A02F864D.htm (accessed: 09.07.05)

Romano, Cesare P. R.: "The Caspian and International Law: Like Oil and Water?". In: Ascher, Mirovitskaya (eds.), 2000, pp. 145-162.

Saiko, Tatyana A.: "Environmental Problems of the Caspian Sea Region and the Conflict of National Priorities", in: Glantz, Zonn (eds.). 1997, pp. 41-52.

Saiko, Tatyana A. and Igor S. Zonn: "Europe's First Desert". In: *The Geographical Magazine*, 67(1995)4, pp. 24-26.

Scharpf, Fritz W.: "Politische Optionen im vollendeten Binnenmarkt". In: Jachtenfuchs, Markus and Beate Kohler-Koch, (eds.): *Europäische Integration*, Opladen 1996, pp. 109-140.

Scheumann, Waltina and Manuel Schiffler (eds.): *Water in the Middle East. Potential for Conflicts and Prospects for Cooperation.* Berlin & Heidelberg 1998.

Sievers, Eric W.: "Caspian Environment Programme: Prospects for Regime Formation and Effectiveness", in: Ascher, Mirovitskaya (eds.). 2000, pp. 327-343.

_____ ."The Internationalization of Environmental Politics in Central Asia and the Emerging Caspian Environment Program". In: *The Iranian Journal of International Affairs*, (Fall 1999) No. 3, pp. 396-416.

Tsukatani, Tsuneo: "The Aral Sea and socio-economic development". In: Kobori, Glantz (eds.), 1998, pp. 53-74.

Vinogradov, Sergei V.: "The 'Tug of War' in the Caspian: Legal Positions of the Coastal States". In: Ascher/Mirovitskaya (eds.), op.cit., 2000, pp. 189-200.

Vinogradov, Sergei and Patricia Wouters: "The Caspian Sea: Current legal problems". In: *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, 55/1995, S. 604-623.

Vogt, Timo: "Der Schwarze Fluß im Kaukasus. Öl für Europa: Die längste Pipeline der Welt führt durch politisch und tektonisch unsicheres Gebiet". In: *Frankfurter Allgemeine Zeitung*, Reiseblatt, 09.06.05, pp. R10-R11.

Voitovich, Sergei A.: "The Commonwealth of Independent States: An Emerging Institutional Model". In*: The European Journal of International Law*, 4 (1993), pp. 403-417.

Waelde, Thomas: "International Good Governance and Civilized Conduct among the Caspian States: Oil and Gas as Lever for Prosperity or Conflict". In: Ascher, Mirovitskaya (eds.), 2000, pp. 29-50.

Young, Oran R. (ed.): *The Effectiveness of International Environmental Regimes. Causal Connections and Behavioral Mechanisms*, Cambridge/Mass & London 1999.

Zonn, Igor S.: "Ecological Consequences of Oil and gas Development". In: Ascher, Mirovitskaya (eds.), 2000, pp. 65-78.

Zürn, Michael: Regieren jenseits des Nationalstaates. Globalisierung und Denationalisierung als Chance, Frankfurt am Main 1998.