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“TRANS-CASPIAN PIPELINE PROJECT AND EIA IN THE CASPIAN REGION”

A Master's Thesis submitted for the degree of
“Master of Science”

supervised by
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Vienna, 2011

Affidavit

I, **Gulnaz Azimbayeva**, hereby declare

1. that I am the sole author of the present Master's Thesis, "TRANS-CASPIAN PIPELINE PROJECT AND EIA IN THE CASPIAN REGION", 108 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
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Abstract

The Trans-Caspian pipeline project is a controversial proposed oil and gas transportation initiative in the Caspian region that aims to bring energy resources from landlocked Central Asian republics, particularly Kazakhstan and Turkmenistan, to Europe, bypassing Russian territory. The project was postponed several times since early 1990s due to political, economic, environmental and legal reasons, the most prominent of which is the legal status issue of the Caspian basin. The Caspian is also known for its unique ecological system and endemic species, such as the sturgeon population. However, due to enhancing oil and gas development in the region and projects like Trans-Caspian pipeline, it faces challenges of environmental pollution and degradation. One of important mechanisms that could assist the Caspian littoral states to prevent further deterioration of environmental situation and minimize the possible transboundary impacts is the establishment of the harmonized national EIA procedures and procedure of transboundary EIA in the Caspian.

This thesis explores the challenges of the transboundary EIA legislature in the Caspian Sea region by assessing the perspectives of proposed Trans-Caspian pipeline project through the prism of the existing issues of legal status of the Caspian basin and political rivalries. Despite general comparability of the national legislation on EIA in the Caspian littoral states, and already existing agreements on the need for procedures of transboundary EIA, the ongoing process of development has not yet reached the objectives of proper functioning legislative framework. The draft Protocol on transboundary EIA to Tehran Convention is based on the provisions of the Espoo Convention, though several difficulties of the legislature and its application were found. Deficiencies in the national EIA legislature, including lack of practice in transboundary EIAs, insufficient public participation and formality in its application, the lack of importance given to environmental issues in the strategic decision making process found to be the most important issues that should be considered in the evaluation of the possibility of construction of cross border projects, in this case Trans-Caspian pipeline project.

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List of abbreviations

CEP	Caspian Environmental Programme
CIS	Commonwealth of Independent States
COP	Conference of the Parties
EIA	Environmental Impact Assessment
EU	European Union
GDP	Gross Domestic Product
IEA	International Energy Agency
IUCN	International Union for Conservation of Nature
MEP	Ministry of Environmental Protection
MEP RK	Ministry of Environmental Protection of Republic of Kazakhstan
NATO	North Atlantic Treaty Organization
PER	Public Environmental Review
POPs	Persistent Organic Pollutants
SEA	Strategic Environmental Assessment
SER	State Environmental Review
TEPO	Territorial Environmental Protection Offices
US	United States (of America)
WB	World Bank

1. INTRODUCTION

1.1 Background and problem definition

According to the estimations of the International Energy Agency (IEA), the global energy demand is increasing constantly, where the share of fossil fuels is still dominating the total energy mix (OECD/IEA, 2010). While this increase in demand is dominated by non-OECD countries, mainly developing countries China and India, the expected rise in energy consumption in Europe is projected to be mostly based on fossil fuels of 70 percent of energy mix with growing dependence on imports (EC, 2011), also indicates the importance of securing energy supply, with growing dependence on imported fossil fuels, mainly oil and gas (EC, 2011). The gas crises in 2009 that affected European countries which mostly depended on one supplier of gas, once more indicated the need for diversification of energy supply and one of the important strategies undertaken is the EU Southern Gas Corridor strategy, the goal of which is to directly connect EU to major gas suppliers, including the Caspian region (EC, 2011).

On the other side of this strategy there is the Caspian region that promises to be a prominent contributor to the energy supply. Thus, according to the prognosis of IEA, Caspian oil and gas production will grow substantially over the period of 15 years since 2009 (OECD/IEA, 2010). The expected rise in the output in oil puts Kazakhstan fourth in the world total growth in volume terms, while the Caspian gas production is dominated by the expansion of production in Turkmenistan, Azerbaijan and Kazakhstan (OECD/IEA, 2010).

Table 1.1: Conventional oil resources in the Caspian by country, end-2009 (in billion barrels)

Country	Proven reserves	Ultimately recoverable resources	Cumulative production	Remaining recoverable resources
Azerbaijan	7,0	29,9	11,7	18,2
Kazakhstan	39,8	78,2	9,2	68,9
Turkmenistan	0,6	19,5	3,6	15,9

Source: World Energy Outlook 2010

Table 1.2: Conventional natural gas resources in the Caspian by country, end-2009 (in tcm)

Country	Proven reserves	Ultimately recoverable resources	Cumulative production	Remaining recoverable resources
Azerbaijan	1,4	4,4	0,3	4,1
Kazakhstan	2,0	6,1	0,4	5,8
Turkmenistan	7,9	14,2	2,3	11,9

Source: World Energy Outlook 2010

This gives a clear picture of the energy market potential with suppliers that have huge oil and gas reserves, and the EU that is highly interested in expanding the range of energy sources. However, the issue is complicated by location of these Central Asian Caspian countries which in most cases are also dependent on Russia as the transit route for Caspian resources. One of the projects that were considered as a part of Southern Gas Corridor Strategy, and even much earlier, with the disintegration of the Soviet Union, is the submarine pipeline that could directly link Central Asian oil and gas to Azerbaijan and from there by other pipelines to Europe. This Trans-Caspian pipeline project is considered both by EU, USA on one side, and Kazakhstan and Turkmenistan on the other, as an opportunity to decrease dependence on Russia in terms of oil and gas exports through diversification of existing pipeline infrastructure in the Caspian region. These strategic interests of the parties though should be also considered in light of the environmental situation in the Caspian Sea, where the most of energy resources are extracted from.

After the dissolution of the Soviet Union, transition period from planned to market economy in post-Soviet Caspian countries was mainly realized through the income from the extraction and export of oil and gas resources in the Caspian, that had severe impact on the environment of the sea and the livelihood of people living in this region. The extraction of oil and gaseous condensates with high sulphur content contaminates the environment and the waste remained after the activities are just some of effects of the human caused pollution in the Caspian (UNEP, 2006). Thus, according to environmental experts, the pollution caused by oil and gas in the region could exceed short-term profits its extraction (Nagoyev, 2007; Diarov, 2007; cited in De Martino and Novikov, 2008).

One of the mechanisms to address the environmental crises in the Caspian region could be the introduction of efficient procedure of environmental assessment of the projects, including the transboundary impacts. Until recently, despite general acceptance of the severity of the problems in the Caspian, due to the unresolved legal status, no binding transboundary procedure is functioning in the region. The existing initiatives by the Caspian littoral states are not developing rapidly enough in face of expanding oil and gas production. In view of these issues it is important to access the challenges posed by the oil and gas projects, including the pipeline projects, from the perspective of the challenges posed by the lack of legal framework of EIA, considering the proposed projects that could have significant environmental impacts not only for the one exporting country, but for the whole Caspian region.

1.2 Overview of relevant legislation and environmental law

The assessment of the possibility of construction of an offshore pipeline in the Caspian basin requires consideration of several national and international sources of law. As was previously mentioned, this thesis is intended to cover the national environmental legislation of Kazakhstan, with particular interest in environmental impact assessment. The further analysis of the challenges and

the feasibility of the proposed Trans-Caspian pipeline project would need to address regional agreements in the Caspian Sea as well as sources of international law relevant for the transboundary impact assessment.

Ecological Code of Republic of Kazakhstan became effective in 2007 and incorporates several previously existing Kazakh environmental regulations. It was intended to systematize the environmental legislation in one document and to make it more transparent. The changes brought more complex reporting procedures and intend to further improve the existing environmental legislation in consistency to international environmental regulations (Dixon, 2007). The Ecological Code also covers the requirements for the environmental impact assessment in a separate chapter, as well as the State Environmental Review and Public Environmental Review, which are the integral parts of the impact assessment procedure in Kazakhstan.

Framework Convention for the Protection of the Marine Environment of the Caspian Sea (also called “Tehran Convention”) and its Protocols is the important agreement between Caspian littoral states of Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan that was signed in 2003 under the umbrella of Caspian Environmental Programme (Tsutsumi and Robinson, 2008). The Tehran Convention sets the basis for the regional cooperation in matters of protection of the Caspian Sea environment. Protocol on EIA in Transboundary context was developed in line with the Espoo Convention and as soon as it is signed will provide a legally binding transboundary EIA procedure in the region (Tsutsumi and Robinson, 2008).

Convention on Environmental Impact Assessment in a Transboundary Context (also named “Espoo Convention”) is an international agreement that specifies “the procedural rights and duties of Parties with regard to transboundary impacts of proposed activities and provide procedures, in a transboundary context, for the consideration of environmental impacts in decision-making”

(Schrage, 2008). It came into effect in 1997 (UNECE. 2011). The Espoo Convention will be dealt in more detail in the next chapters due to its importance in setting the basis for the regional environmental legislation in the Caspian.

1.3 Research aim and thesis structure

Due to the reasons mentioned previously, this thesis seeks to examine challenges of the proposed Trans-Caspian oil and gas pipeline projects with the view complexity due to the difficulties in the development of the existing national EIA legislature in one of the Caspian littoral states, particularly Kazakhstan, which could be representative case for the situation in other post-Soviet Caspian counties; the transboundary EIA framework in the region, including the assessment of the elements of Espoo Convention that created the basis for regional draft Protocol on EIA; and considering the specific features of the issue it will be important to cover the issue of the legal status of the Caspian basin.

Previous studies in this field mainly cover each of the issues mentioned separately. Main focus of the research was the Caspian energy resources and geopolitical confrontation between global and regional powers for domination and access. Lack of research is done in the analysis of the EIA system in Kazakhstan, and even less try to access the ongoing process of development of transboundary EIA mechanism in the Caspian. Despite the focus on one specific infrastructure project in the region, the choice is based on several important aspects that could make it one of the key projects. Due to the non-existing transboundary EIA framework in the region and vast international attention to this specific pipeline project, it could become one of the first to undergo the process of transboundary environmental impact assessment in the Caspian within the binding legal agreement. Moreover, it could be also representative test case in the region for the applicability of this agreement to

such complex projects, as it has been done for similar projects in other regions of the world¹.

Previous years of discussions among Caspian littoral states and other interested parties on the possibility of the construction of the Trans-Caspian pipeline on the seabed have not yet achieved certain common position. The contrasting interests of the parties postpone the solution of the problem with the legal status of the Caspian basin, which in itself sets an obstacle to organize the properly functioning legislative framework to deal with environmental issues in the region. In this respect the regulatory regime on transboundary environmental impacts is a much needed tool that could enable to protect the environment of fragile water body. This could turn into a problem for the proposed Trans-Caspian pipeline project that mainly is lead by political interests. There are several questions arising with the view of feasibility of such a controversial infrastructure project involving interests going beyond countries bordering the Caspian Sea.

One of the first issues is the extent of the abilities of the national environmental legislation, in this case Kazakhstani, to provide sufficient base for environmental impact assessment procedure for such project as Trans-Caspian pipeline. Whether the existing EIA regime in Kazakhstan at the current level of development would be able to assess the planned project in respect of the main objectives of the EIA in accordance with international standards?

Secondly, whether the Caspian region has a functioning transboundary impact assessment procedure that the littoral states would abide to? How far can the Espoo Convention be applied in the case of the Trans-Caspian pipeline project with different levels of involvement of the Caspian states in this agreement? Despite the existence of informal instructions on EIA (Tsutsumi and Robinson,

¹ Example can be the Nord Stream gas pipeline project in the Baltic Sea.

2008), the projects with possible transboundary environmental impacts would require procedures that all the parties follow.

Thirdly, the Caspian Sea region projects are complicated by the geopolitical interests mostly concentrated in oil and gas resources under the waters of the Caspian and positions of each littoral state on the issue of the legal status. This could be reflected in the efficiency of the EIA in the region and requires the analysis of the extent to which these issues are affecting the procedure and the final decisions on the possibility of construction of a pipeline.

As such, this thesis is an attempt to assess whether it is feasible to consider the possibility of construction of the Trans-Caspian pipeline project with the view of existing and future environmental impact assessment legislature framework on the regional level, including national procedures in the Caspian Sea region. The issue considers multidimensional perspective with the focus on the application of the transboundary EIA for the proposed Trans-Caspian pipeline project. The research is based on the qualitative aspects of the Trans-Caspian project and the EIA procedures overview that would let to assess the interconnected nature of the complex projects in this region.

The thesis is organized in the order and logic of the EIA procedure, where the national EIA will take place the first, continued with the transboundary impact assessment. Second chapter describes the general structure and issues of the national environmental assessment in Kazakhstan, and overviews the aims and the procedures of the Espoo Convention. Chapter three explores the transboundary environmental impact assessment in the Caspian region, with focus on the Protocol on EIA to the Tehran Convention. The overview of the ongoing political factors affecting the Trans-Caspian pipeline project, with the description of the two pipeline projects, as well as the environmental issues of the Caspian Sea are discussed in the chapter four and five. Chapter six is devoted to the analysis of the roots of the legal status and delimitation issue of

the Caspian Sea, in light of the pipeline politics and the confrontation of regional powers. The final chapter analyses the challenges of existing legislature on EIA and effects considering its application to the Trans-Caspian project.

2. ENVIRONMENTAL IMPACT ASSESSMENT

2.1 National legislation on Environmental Impact Assessment in Kazakhstan

2.1.1 The Ecological Code of Kazakhstan and Instructions on EIA

The legislation on the environmental protection in Kazakhstan was shaped during the transition period that considerably changed its framework from the centrally planned authoritarian regime to the mix of previous Soviet type environmental regulations and market legislation that despite being based on rigid standards, in practice displayed a gap between declared standards and economic situation, the state of technological development to meet these standards. In many cases the updating of the existing legislation was realized through the inclusion of the extracts from the EU or other legislation that could be incomplete and not correspond to the content of the current state of the environmental conditions (UNECE, 2008; MEP, 2009; Gavrilova, 2010, Zaytsev and Mattson, 2008).

The incorporation of the new elements of the EIA procedures and the general attempts of development of environmental legislation led to the integration of the provisions on the Environmental Impact Assessment (EIA), Public Environmental Review (PER) and State Environmental Review (SER) (also called “Ecological Expertise” (EE) into the Ecological Code in 2006, which were previously in the Law on Ecological Expertise.

The Ecological Code (also called Environmental Code) is a result of attempts to develop the existing legislative framework of environmental protection in Kazakhstan. It incorporated three main laws, particularly, the Law on Environmental Protection, the Law on Ecological Expertise and the Law on Air Protection. Moreover, 80 previously separate normative legal acts regulating the environmental protection were also abrogated with the introduction of

Ecological Code (UNECE, 2008). It entered into force in 2007 and consists of nine chapters, which are (1) general provisions; (2) licensing; (3) economic regulation of environmental protection and nature management; (4) ecological inspection; (5) ecological monitoring and registration; (6) environmental disasters; (7) ecological education and research; (8) ecological requirements for the projected economic activity; and (9) liability and dispute settlement (The Ecological Code, 2007). Due to the short time of the developing of the Ecological Code, it was criticized for having various gaps and discrepancies between its constituent parts (UNECE, 2008). However, the adoption of such an encompassing legislative framework of environmental protection as Ecological Code is considered an achievement in comparison to other CIS countries (Kulmambetov, 2009), because it enables to incorporate the national environmental legislation and the international conventions such as the Basel and Rotterdam Conventions (UNECE, 2008) in a single Act to develop the structure of environmental protection in accordance with international standards.

The structure of the Kazakhstani legal/regulatory framework for environmental protection can be subdivided into two parts of the process, the EIA itself, and State Environmental Expert Review (SER), which is the procedure of the review of all materials supporting the decision-making on regulatory requirements conducted by competent authorities, mentioned in the Chapter 7 of the Ecological Code. One additional part of the EIA procedure that is voluntary based is the Public Environmental Review (PER), described in Articles 60-67 of the Ecological Code. PER could be considered as equivalent to SER, though it has less requirements. Moreover, it is financed by private means (Article 64). The procedure provides that the results of the PER are included to the EIA and SER documentation and registered at the competent authority.

The Ecological Code defines the Environmental Impact Assessment as following:

“the process, which includes assessment of likely impact on the environment and human health of a business and other activity, development of measures with a view to preventing adverse effect (destruction, degradation, damage and depletion of natural ecological systems and natural resources) and improving the environment, subject to the requirements of the environmental laws of the Republic of Kazakhstan” (Article 35, Chapter 6).

The definition includes three basic principles of Environmental Impact Assessment of identification, prediction and mitigation of possible adverse effects to environment prior to decisions on activity is undertaken (IAIA, 2011).

Both parts of the process, thus EIA and the State Environmental Review are interconnected, where the developer performs the EIA by the private accredited companies, and after being approved, applies to the EE where it is checked in the timeframe specified in the Article 50, not exceeding three months period after the submission of the full package of documents. Article 50, section 2, specifies the pre-review period of two weeks for competent authorities, and according to the UNECE Environmental Performance Review: Kazakhstan, 2nd Review (2008), together the EIA and SER can theoretically last for more than two years, though in practice it takes about one month after receipt of all documents. Moreover, the Report also raises the concern of administrative workload affecting the time longitude and the quality of the SERs that considered as very general and “poorly enforceable”.

According to the Law of Kazakhstan on Nature Protection (15th July 1997), one of the main principles of the environmental protection in Kazakhstan is the “prevention of damage to the environment, assessment of the potential environmental impacts” (Article 3). The objective of EIA is defined in the Article 46 and stated as “to define the environmental and other consequences of the management and economic decisions, to develop recommendations on improvement of the environment, to prevent destruction, degradation, damage and depletion of the natural ecological systems and natural resources”. The more precise and detailed definitions and regulatory framework of the EIA are

mandated in the Ecological Code (adopted on January 9, 2009) and two regulations². The Article 35 and 36, Chapter 6 of the Ecological Code provides the definition of the EIA and requirement for EIA for all economic and other activities, “which are likely to have direct or indirect impact on the environment and human health”. The stages of the EIA are also defined in Article 37, mainly being (1) current situation, (2) preliminary assessment of feasibility study, (3) full EIA, including substantiation of alternative options, (4) environmental protection plan (engineering solutions), (5) Post-project monitoring after one year of the start of functioning. Thus, the EIA is covering the physical planning and environmental undertakings, however does not specify explicitly the screening phase.

The Article 40 of the Ecological Code specifies the categories of projects that are covered by this legislation. The categorization distinguished according to the scope of the EIA required mainly follows the sanitary classification of industrial activities established by the Ministry of Health Care under the 2005 ministerial order “on Sanitary and Epidemiological rules and norms”. The same classification is listed in the “Instructions on conducting environmental impact assessment of the planned economic activity when developing pre-planning, planning, initial project and project documentation”, which are the sanitary and epidemiological requirement activities falling under Category I of activities with threat range of 1 and 2, and also investigation and extraction of minerals, except for common minerals. Activities of threat class 3, extraction of common minerals, all kinds of forest activities and special water use fall under category II. Category III covers activities of threat class 4, and threat class 5 and use of fauna except for amateur (sports) fishery and hunting, fall under category IV (Table 2.1).

Table 2.1: EIA Categories according to Ecological Code of Kazakhstan

² Regulations on conducting State ecological expertise (approved by the Order of the Minister of Ministry of Environmental Protection, 28 June 2007, No. 207-p); Instruction on conducting environmental impact assessment of the planned economic activity when developing pre-planning, planning, initial project and project documentation (approved by the Order of the Minister of Ministry of Environmental Protection, 28 June 2007, No. 207-p; changes were introduced on 20 March 2008 and 3 February 2009)

EIA Category	Definition/Linkage to Sanitary Class	Degree of Impact/Risk
I	Activities of sanitary class 1 and 2 Investigation and extraction of minerals, except for common minerals	High
II	Activities of sanitary class 3 extraction of common minerals forestry activities special water use	Medium-high
III	Activities of sanitary class 4	Medium-low
IV	Activities of sanitary class 5 Use of fauna, except of recreational fishing and hunting	Low

The MEP delivers permits for category I. Permits for the other three categories are issued by local government representative units. Besides that, the Instructions include the Annex 1 and 2 project lists, the foregoing of which “recommends” the conduct of the EIA in full capacity, and the latter lists the projects where the need for the comprehensive EIA is “proposed” by the state experts, based either on the preliminary expertise or using the threshold values or criteria defined by the regulation. The content and the thresholds defined in the Annex 1 and 2 fully coincide with the Annex I and II of the Directive on Environmental Impact Assessment (85/337/EEC) (released in June 1985, amendments 1997, 2003).

Articles 15-24 of the Instructions describe the second stage of EIA, so called pre-EIA, where the potential possible changes in the natural and social economic environments and possible consequences for the society and natural environment are to be considered. However, the pre-EIA does not require calculations of the levels of pollution, and can include some elements of pollution dispersion analysis.

The next stage in Articles 26 specifies the detailed list of requirements for the full fledged EIA for air, water resources, natural geological environment, industrial and domestic waste generation, physical impacts (such as assessment of possible heat, electromagnetic, sound, etc.), soil and vegetative cover, wildlife, social economic environment (including such measures as

provision of human resources and local community participation), and the evaluation of the risks set by the realization of the project in the region (including the projection of the impacts that can be caused due to accidents and recommendations for its prevention). In comparison to the EU Directive on EIA, this list does not cover “material assets and the cultural heritage”, which are mentioned separately in the Article 3 of the Directive. Moreover, while in the EU Directive, in the same article, human beings are enlisted in the first line, in the Ecological Code, Article 39, as well as the Instructions, the “state of human health” comes in the end of the list. This stage requires the detailed information with calculations of emission limit values (ELVs), in case of any changes in the design documentation, the developer should adjust EIA materials, which are reviewed by authorities as well.

The last stage of EIA in the legislation, post-project analysis defined in Article 36, is required for the large projects of capital investments more than 50 million USD after one year of functioning. This stage allows to control whether the requirements of the EE are complied and monitor the activity of the facility. However, Eydinov noted that “Until now, procedure of post-project analysis has not been implemented practically, and even more this stage is planned to be removed from the Code at all, which is what allows to control embodied in the draft assessment materials on the environment” (Tuleuova, 2010).

In 2008 changes in the EIA legislation included in the Ecological Code (Article 44) and the Instructions (Article 43), the requirement to conduct EIA for existing facilities, where it was not performed previously, especially for the facilities that were constructed during Soviet times. This need is particularly apparent considering that out of 71 power plants in Kazakhstan, 70 percent of total production come from coal fired power plants, which use coal with low calorific value (e.g. 3,850 kcal/kg at the Ekibastuz AES power plant), and lack efficient gas purification systems, having no denitrification and desulphurization units (Environmental Performance Reviews, 2008). However, the experts doubt the need for this new tool, considering the existing already environmental audits,

referring to the comments by industry sector and NGOs, that regard this measure as an “administrative burden without offering clear environmental benefits” (Environmental Performance Reviews, 2008). In this respect, it is worth mentioning that environmental audit, referred in Chapter 9 of Ecological Code, differentiates between mandatory and initiative environmental audit. As such, the mandatory environmental audit is mandatory in cases of documented environmental damage, reorganization or the bankruptcy of the facility (Article 81, paragraph 2). “Environmental audit - a procedure aimed at verifying the impact on the environment of the company directly during its work. Previously this service was compulsory, but now it is increasingly is conducted based on any complaints either from interested citizens, or by regulatory authorities” said Eydinov (Tuleuova, 2010).

The list of documents required for the EIA is found in the Article 41 of Ecological Code, and paragraph 3 specifies that “Completeness of the documentation at each stage of environmental impact assessment shall be determined in accordance with the environmental impact assessment directive”, where “directive” refers to Instructions. However, Instructions do not specify the conditions for the completeness of the EIA. The list of correspondence of stages of project and stages of the stages of EIA, despite being named as “Stages of EIA documentation development”, found in the Annex 3 to the Instructions, only specifies the general need for documentation packages, without detailed parameters for identification of completeness.

According to Article 42 of the Ecological Code, EIA of the project should be conducted based on the instructional regulatory documents that were approved by the relevant authority. Though until now no methodological document had been issued by the Ministry of Environmental Protection, only one project of Methodology of EIA conduct has been under development and could be considerably changed (MEP RK, 2010).

As it has been previously mentioned, the two-tier EIA system in Kazakhstan provides the State Environmental Expert Review as the second step, when all

relevant EIA documents considered by the authorities³. However, according to authorities, in the next stage of reforming the system of environmental protection, following the example of best international practice, the exclusion of the state ecological expertise as an independent bureaucratic process is possible, and its conduct only in case of necessity in the time of issuance of environmental permits (MEP RK, 2010).

2.1.2 Environmental Standards

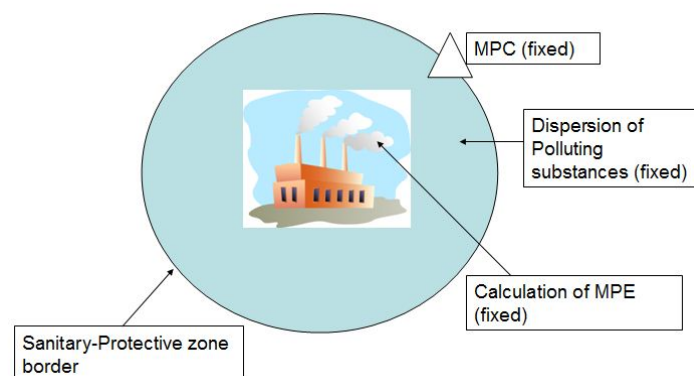
One of the basic problems of the administrative environmental protection system of Kazakhstan outlined by several authors, including project developers, state authorities and international experts (MEP RK, 2010; Zhunussova, 2004; Gavrilova, 2010) is the environmental quality standards which are considered non-realistic and obsolete, especially considering the current condition of most of industrial enterprises and technological capabilities. The current EIA institute combines both the elements of the Soviet system, which are included in documents such as Draft Maximum Permissible Emissions (MPE), Draft Maximum Permissible Emissions. According to Article 23, paragraph 3, Chapter 4 of Ecological Code, "The procedure for setting standards of maximum permissible concentrations and approximate safe levels of substances shall be defined in the laws on sanitary-and-epidemiological safety, on wildlife conservation, reproduction and use and land laws of the Republic of Kazakhstan"⁴. The sanitary epidemiological standards are defined by the authorities based on the human health standards, that were defined by experts as "unrealistic" (Zhunussova, 2004) and "impracticable", requiring "unreasonable costs and therefore not complied with for many decades" (MEP RK, 2009). The system of environmental quality standards (maximum

³ The procedure of conduct of State Ecological Expertise is defined by the Decree of the Minister of Environmental Protection "On approval of rules for conducting the state ecological expertise", 28.06.2007, No. 207-p.

⁴ According to the latest changes in the legislation, the law "On the sanitary-epidemiological welfare of population" (December 4, 2002 N 361) is expired and replaced by the Code of the Republic of Kazakhstan dated 18.09.2009 N 193-IV "The people's health and the health care system".

permissible concentrations MPC) that are the heritage of the Soviet times and are much higher values than in Western Europe and North America, setting stricter environmental standards for thousands of pollutants (Zhunussova, 2004; MEP RK, 2010; MEP RK 2009). Zhunussova gave example of the air emissions to display how the requirements of standardization mechanism based only on maximum allowable concentrations functions and hampers the real improvement of environment due to the unreachable, thus forcing enterprises to pay penalties for exceeding standards that are established by local authorities.

Figure 2.1: Emission standards setting procedures (Redrawn scheme from Zhunussova, 2004)



Moreover, the review of the existing policy instruments in Kazakhstan had shown that “the binding relation of maximum permissible emissions/discharge levels (MPE/MPD) to environmental quality standards hampers the introduction of alternative, economically effective instruments” (MEP RK, 2009). Similar example of the inadequacy of the standards set was given in the same Report. Due to the laws and extracts from the previously existing methodologies of the Soviet Union⁵, which are still used in Kazakhstan, the industries discharge effluent have to be of quality that is even higher than that of abstracted water,

⁵ In this case it was the Decision No. 1045, 1958 of the USSR government

which makes no other way for them than just to pay penalties than invest into the construction of the treatment plants.

The values of the environmental quality standards are critical as they set the basis for the State Environmental Review to establish *“the compliance of the planned and carried out economic and other activities to the environmental quality standards and environmental requirements, as well as determine the admissibility of implementing the object of the state ecological examination in order to prevent possible adverse effects of activities on the environment and associated social consequences”*, as defined in the Rules of the State Ecological Expertise, approved by Order of the Minister of Environment of the Republic of Kazakhstan on June 28, 2007 № 207-p.

2.1.3 Public Participation in EIA legislature

The system of EIA in Kazakhstan also includes the Public Ecological Review (PER) which is described in the Articles 60-67, and defined as *“a type of activity performed on a voluntary basis by expert committees created by public associations”*. The financing of this expertise is covered by private means (Article 64), and it has less extensive requirements than the State Expertise Review, though considered as equivalent to SER (MEP RK, 2009).

The other important part of the EIA procedure is the public participation and the possibility to achieve all relevant information of the planned project concerning the environmental impacts it can have on the region. The Aarhus Convention was signed in June 1998 and ratified by the Law of the Republic of Kazakhstan of 23.10.2000 № 92-II (Aarhus center of RK, 2011a). Thus, in Kazakhstan, the basic legislative and normative acts set the framework for the implementation of the provisions on public access to environmental information were adopted before the ratification of the Aarhus Convention. They regulate the public's right to receive and the obligation of governmental institutions and organizations to provide the requested information. The main document regulating these procedures is described in Ecological Code, Article 159. Moreover, the detailed

regulations on the conduct of the public hearings are mentioned in the “Rules on the public hearings”, approved by Order of the Minister of Environment of the Republic of Kazakhstan dated May 7, 2007 № 135-o. Thereby, the public hearings are the requirement at every stage of the EIA. However, according to the Report on the implementation of the Aarhus Convention, Paragraph 21 of the Rules of the public hearing, stating that “Public hearings are held, regardless of the number of present members of the public, including the concerned public, came at the appointed time”, creates the possibility of formality of the public hearings without adequate comprehensive account of all the possible consequences of planned economic activity, which is in violations of basic principles and EIA (Articles 2.5.2., 2.5.4., 2.5.6. of Instructions for EIA) and State Environmental Review (Chapter 7, Art. 46 EC of the RK, Section 3 of the Rules SER), which ultimately, leads to bias decisions, to an incomplete accounting of all the risks to the growth of social tension and the strengthening of legal nihilism in all sectors of society, the growth of corruption and distrust of authority to state agencies, leading to loosening of the foundations Law Enforcement (Aarhus center of RK, 2011b). Though, the experts of the UNECE Environmental Performance Review had more optimistic position on the issue, referring to the increasing total number of hearings reached (more than 50 percent of all EIA material), and wider application in the regions (UNECE, 2008).

2.1.4 Administrative structure of EIA control

Article 48 of the Ecological Code defines the distribution of responsibilities between central executive environmental protection agency and the local authorities on the State Environmental Review. Thus, I category of objects, including such activities as exploration and mining of natural resources, is carried out by the Ministry of Environmental Protection, which is the central executive body for environmental protection. The territorial environmental

protection offices (TEROs)⁶ are responsible for conduct of State Environmental Reviews of proposed activities under the Categories II, III and IV (UNECE, 2008).

Activities of departments of the state ecological examination is carried out in collaboration with specialists from other departments of the Republic - Ministry of Health, Ministry of Science and Education, Ministry of Energy and Mineral Resources, Ministry of Emergency Situations of the Committees on Water, Fisheries, Forestry, Ministry of Agriculture - and others.

Table 2.1.4: Generalized scheme of the EIA

- 1) EIA: analysis of environmental, socio-economic characteristics of the area of the proposed activity; environmental assessment, socio-economic conditions as a result of planned economic activity
- 2) The drafting of the EIA
- 3) Public participation in the discussion of design materials, changes and additions to the project documentation
- 4) State Environmental Review of the EIA documentation
- 5) Decision on the realization of the proposed activity
- 6) In case of acceptance and approval - implementation of planned activity. EIA data can be used for the effectiveness of the EIA for future project decisions
- 7) In case of inconsistency, a proposal for revision of project is given. The review of revised EIA documentation is possible or the refusal of the planned activities.

⁶ The Ministry of Environmental Protection has TEPOs in 14 oblasts (administrative regions in Kazakhstan) and two in cities of Almaty and Astana (800 staff overall) (UNECE, 2008).

2.1.5 EIA in a transboundary context as referred in National Legislation

The environmental impact of projects that have likely transboundary impact is defined by the Convention on Environmental Impact Assessment in a Transboundary Context, ratified by the Republic of Kazakhstan (Law of the Republic of Kazakhstan No. 86-II, 21.10.2000). Article 43 of Ecological Code does not provide any further details on the EIA with likely transboundary impact and refers to the international treaties. The Instructions of EIA combined the articles on the EIA procedure on already existing facilities and the facilities with transboundary impacts under one chapter (Article 44).

2. 2 Transboundary Environmental Impact Assessment

2.2.1 The Espoo Convention

The Convention on the Environmental Impact Assessment (1991), also known as the Espoo Convention, entered into force in 1997. Espoo Convention was one of the first multilateral international treaties that designed the procedure, rights and responsibilities of the bordering countries in the issues of transboundary possible environmental impacts to be considered during the decision making process in the countries concerned (UNECE, 2007b). According to Conelly (Conelly, 2008, as cited in Hernández, 2008), *“the strongest motivation for the Espoo Convention was the application of the already working EIA framework to assess transboundary impacts and to prevent conflicts between countries”*. Koivurova and Polonen (2010) mentioned that this Convention is a modern type of dynamic international treaty regimes that are built in such a way to be most adaptive to the changing circumstances, which is highly significant for the interconnected international situation and considering large complex projects. Though some scholars such as Kersten (2009) question the effectiveness of such treaties, pointing out that they provide only procedures and even with the changes in the project, it is difficult to determine if it was caused by the EIA or the external factors such as the policy

goals. Moreover, he noted that in most cases transboundary EIAs' procedures does not force governments to choose "the least harmful alternative or mitigate the environmental damage. So long as the decision maker complies with the procedural steps in good faith, it has fulfilled its obligation and free to adopt the most ecologically unsound plan" (Kersten, 2009). Despite the challenges of such international regimes (Kersten, 2009; Koivurova and Polonen, 2011), the Espoo Convention had shown its ability to function successfully and increasing number of parties to the Convention is one of the indicators⁷.

In order to analyze the role of EIA transboundary regime effectiveness and the possibilities it provides to address the likely environmental effects of the projects in the region, it is necessary to know the main characteristics and the process of its functioning.

2.2.2 The overview of procedure of Espoo Convention

The Espoo Convention sets certain framework for the international cooperation between countries where the priorities are given to the obligations of conduct of EIAs at early stage of project development and the need of notification and consultation among countries that could be affected by the planned project. The preamble of the Convention mentions of the general goal of ensuring "environmentally sound and sustainable development" by setting the procedures that require the parties of the Convention to cooperate before the project starts and "take all appropriate and effective measures to prevent, reduce and control significant adverse transboundary environmental impact from the proposed activities" (Article 2). While Convention defines the "impact" in a broad sense, the Appendix III to the Convention provides a list of criteria as a general guidance to identify whether the project could be defined as possibly causing "significant adverse impact" (Article 2, paragraph 5).

⁷ At present there are 45 parties to the Espoo Convention (<http://www.unece.org/env/eia/ratification.htm>)

Article 1 of the Convention provides the definitions of the terms used. One of the important definitions given is the “Proposed activity” that in some cases raised a challenge for the practical application. One issue that was outlined by Schrage (Schrage, 2008) is the scope of the project planned. Thus, according to the Article 1, “Proposed activity” defined as “any activity or any major changes to an activity subject to a decision of a competent authority in accordance with an applicable national procedure”. As such it defines activities that are planned in one country and could have impacts in other countries, while not referring explicitly to transboundary activities, such as roads, pipelines (Schrage, 2008). One such example was the case of Transboundary EIA procedure for the Nord Stream gas pipeline Project, the complexity of which was not considered in the Espoo Convention (Koivurova and Polonen, 2011; Hernández, 2008).

According to Article 3.2, formally the Transboundary EIA process begins with the notification of the Party of origin, however, as it is specified in the Article 2.2 the procedure already starts by the information provided to all interested parties, such as government, public and others, concerning the Convention and the mechanisms, so that the knowledge could reach authorities and Points of contact to initiate the process (UNECE, 2003). So called screening process also precedes the notification step, where based on the Appendix I of the Convention it is determined whether the automatic application of the Convention will be realized. In cases where the activity to be taken is not listed, then the Parties should discuss and decide on the need of the application of the Convention for these cases (Article 2.5). Moreover, one important point is that the Convention covers not only the cases of transboundary environmental impacts between neighboring countries, but also the long distance impacts (UNECE, 2003).

In accordance of Article 3.1 of the Convention and the Decision I/3 (1992), the signatories to the Convention agreed on the need of the points of contact, so that "Notifications of proposed activities likely to cause significant adverse

transboundary impact shall be transmitted to the relevant points of contact ...” (decision I/3, paragraph 1). Moreover, the Guidelines underline the importance of the informal negotiations well in advance of the formal notification, as well as during the whole procedure.

Article 3 of the Convention defines the first formal step of the transboundary EIA process that is the notification of the affected party by the party of origin, the content of which is defined in the Article 3.2. The main coordinating role in this step is given to the official Point of Contact, or could be specified to be given to other authorities responsible according to national legislation of the Parties.

The timing of the notification is one of the critical importance. Thus, the Guidelines specify that the steps of sending and responding to the notification, as well as the public consultation and participation, and the informing of the final decision, should be discussed among Parties as early as possible. Besides that it is underlined that the notification should be sent not later than the public of the Party of origin is to be informed of the national EIA (UNECE, 2003).

As was mentioned previously, Article 3.2 provides the list of the information that should be provided by the notification to the affected party, and it also specifies the possibility of additional information to be included already with the notification (mentioned in the Article 5), that could help the Parties in speeding the process and provide the affected more valuable information for the decision on whether to take part in the EIA. Schrage (2008) pointed out that in practice at this stage it was difficult to receive tentative information on the likely transboundary impacts, so the main objective at this stage should be the decision of the authorities in the party of origin on the area of impact and the criteria for determination of this area.

The other important aspect mentioned in the Article 3.3 is the timely response by the affected party, no matter if it is negative or positive. The transmitting of the information between parties is to be conducted through the points of

contact, as mentioned in Article 3, or if the list of points of contact is not provided, then the information is sent to the Ministry of Foreign Affairs of the affected party (Article 3; Schrage, 2008).

Convention provides that the parties concerned ensure public participation in the in environmental impact assessment as a right to be informed and a right to express views (Articles 2.2, 2.6, 3.8, 4.2). Whereas the public participation is one the most important pillars of the Convention, one of the challenges of it is the difference between legislation and practice of the parties can be extensive. As a tool to overcome the difficulties of practical implementation of proper functioning of public participation, Parties to the Convention by the Decision III/8 adopted the Guidance on public participation in EIA in a transboundary context, which was based on the results of the case studies, and sets detailed arrangements on how to organize the involvement by defining roles and responsibilities of authorities on both parties. One of the important aspects of practical implementation is the translation of the documents, which can become an obstacle for participation of public and authorities (UNECE, 2003). This issue is not explicitly mentioned in the Convention, though one of the basics that needs to be addressed by the Parties.

One of other issues concerning public participation and the notification process “as early as possible” was raised by Schrage (2008), mentioning that due to differences in national legislation, and thus steps of EIA, in some cases there is no public participation requirement during scoping process, and in other countries, no scoping step at all. In the latter case, the notification to the affected Party is possible after the authorities of Party of origin are informed and in some cases the adverse impacts could be found out only after its own public was informed. Schrage (2008) notes that “In such situations, which are contrary to the provisions included in the Article 3(1), of the Convention, the Party of origin should notify the affected Party immediately”.

The minimum information to be contained in the documentation for EIA to the national authorities is covered in the Appendix II of the Convention, according to Article 4.1. This step outlines the importance of public participation once again, and underlines the responsibilities of both Parties to provide distribution and collection of comments. The Guidelines also note the importance of setting realistic time limits for collection of comments to be able to submit the documentation on time (UNECE, 2003).

Article 5 of the Convention provides the Parties to negotiate the possible transboundary impacts and measures to be taken. The Guidelines enlist three matters that to be decided by the parties for the consultations stage: (1) authorities participating in the consultations, (2) timing of consultations, (3) ways of informing the Parties about the results of consultations (UNECE, 2003). The Article 5 does not specify the level of the representatives from Parties to conduct the consultations, and both Guidelines and Schrage (2008) suggest that due to the official status of the consultations where the nation states are represented, they are the highest level, though it is the right of the Parties to decide. One suggestion was the Ministry of Environment, Ministry of Foreign Affairs and the decision making body (Schrage, 2008).

The list of possible issues to be discussed during the consultations includes the possible alternatives to the proposed activity and other measures to reduce impacts. The aspect of the possible alternatives at this stage of Espoo procedure in practice raised some disagreements in the case of Baltic Sea Gas Pipeline (Koivuriva, Polonen, 2010). Thus, authorities of one of the contracting parties, Finland, requested for explanations of why the land based alternatives were not included in the final EIA, which they did not require during the earlier phase of scoping. Moreover, Koivurova and Polonen (2010) specify that the Convention “leaves it for the country of origin to determine which alternatives within its jurisdiction are to be examined. Consideration of reasonable alternatives, including the no-action alternative, is stipulated in Article 4(1) and

Appendix II of the Espoo Convention with the qualification “where appropriate”. From this perspective, it is left questionable the effectiveness of the consultations on the possible alternatives at this phase, though other cases could have opposite results.

Article 6 of the Convention indicate that the final decision on the project is to be taken considering the comments from affected party and the public, which are to be treated equally, irrespective of national borders (UNECE, 2003), and should include the reasoning and considerations of the decision taken. Though, the Guidelines specify that the Party of origin does not have “to strictly follow the proposals or requests of the affected party in detail”, which means that “the affected Party has no right of veto in the decision to implement in the proposed activity” (Schrüge, 2008).

The Article 7 of the Convention covers the post-project analysis including the monitoring of the compliance with the conditions, review of the impact and the verification of the past predictions (Appendix V). Craik (2008) notes that the reference to the uncertainties of the environmental impacts that were made during the EIA is important due to the criticism of the EIA process mostly based on the “limited predictive capabilities”. However, this phase of the Espoo procedure is not mandatory and relies on the decision of the Parties whether to conduct the analysis.

The Article 8 of the Convention expands the scope to stimulate Parties to draft more precise bilateral or multilateral agreements. This mechanism can be used to overcome difficulties due to the differences between national legislation and EIA practice of the different Parties. The Espoo Convention provides recommendation for the possible content of the agreements in its Appendix VI.

The Articles 3.7 and Article 14bis⁸ provide the Convention with the mechanisms for the efficiency of the measures taken to comply with the Convention. Article 3.7 indicates that in the case when parties were not able to agree on whether the significant environmental impact is possible, one of the Parties is able to submit a question to the inquiry commission. The Appendix IV of the Convention specifies the procedure of inquiry and the Inquiry commission defines its own procedures (Appendix IV). Koyano (2008) specifies that the inquiry procedure is very important due to the specific nature of the environmental issues based on different positions on the scientific and technological issues among the parties to the Convention.

Article 14bis elaborates on the compliance procedure by the parties to the Convention, which is based on the periodical review reports. Moreover, Koyano (2008) specifies that the reviews are based on completed questionnaires by the parties, and the cases of inability to comply by the parties to their obligations are considered by the Implementation Committee and then sent to the Meeting of the Parties that adopts the decision on the issue.

Table 2.2.2 The stages of Espoo Convention assessment process (based on "Flow chart of the stages of an assessment according to the Convention, UNECE)

1. Application of the Convention (Art. 2.2, 2.5/ App. I and II)	Public participation (may include one or more rounds) (Art. 3.8)
2. Notification (Art. 3.1)	
3. Confirmation of participation (Art. 3.3)	
4. Transmittal of Information (Art. 3.6)	
5. Preparation of EIA documentation (Art. 4/App. II)	

⁸ Article 14bis was included in the Convention with the Decision III/7 on the Second Amendment to the Espoo Convention (2004)

6. Distribution of the EIA documentation for participation of authorities and public of affected Party (Art. 4.2)	
7. Consultation between Parties (Art. 5)	
8. Final decision (Art. 6.1)	
9. Transmittal of Final decision documentation (Art. 6.1)	Depend on decision of the parties concerned
10. Post-project analysis (Art. 7.1/App. V)	

2.2.3 Special Issues: Joint EIA

Increasing complexity of the EIA process due to the wider range of projects and countries becoming parties to the Convention, meaning covering wider impact areas, raises the number of projects that need mechanisms to cover the analysis of possible impacts not separately for each region within national borders, but to encompass the impact area as a whole. The Convention defines that Parties “*shall, either individually or jointly, take all appropriate measures and effective measure [..]*”(Article 2.1). Moreover, the Guidance specifies that there could be two situations where a joint EIA applies: joint projects with likely impacts in one or both Parties of origin and also joint projects with impacts in Parties of origin as well as in other Parties (UNECE, 2003). Appendix VI g, provides the basis for the setting of the institutional arrangements for the functioning of the joint EIA.

In case the parties of origin decide to carry out one or more stages of the EIA jointly, as it was implemented in the case of bridge construction project over the Danube river between Bulgaria and Romania (UNECE, 2004), the Parties decided to conduct a joint EIA, based on Bulgarian, Romanian and European

Union legislation. Thus, due to the differences in the legislation, having one step procedure in one, and two step in other, Parties chose to have two step EIA: preliminary EIA according to Bulgarian legislation and final EIA based on Romanian legislation.

The second case, when the project said to have significant impacts not only in the parties of origin, but as well in other countries, where the pipeline in a water basin could be an example (UNECE, 2003), Guidance recommends on the sharing of responsibilities among Parties, but the obligations between the Parties of origin. One of the large scale projects with transboundary impacts is the Nord Stream Gas Pipeline Project, the route of which passes through Parties of origin, namely Russia, Finland, Sweden, Denmark and Germany, while affected Parties are Estonia, Latvia, Lithuania, Poland (Nord Stream, 2009). However, in this case the Parties decided to have separate five national EIAs on the basis of national EIA legislation, which were later combined to one Espoo EIA Report by the Nord Stream, due to several reasons. Koivurova and Polonen (2010) suggest that such kind of complex transboundary projects were “not envisaged when the Espoo Convention was negotiated”. Though, authors underline that the Convention leaves it to the Parties to determine the scale of the possible transboundary impacts and the range of the “affected” parties and said that in case of Nord Stream project they chose the “community approach” that made it possible to cover environmental impacts as for the whole region (Koivurova and Polonen, 2010).

2.2.4 Strategic Environmental Assessment

In line with the Principle 4 of the Rio Declaration (1992), which states that “In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it”, the Protocol on Strategic Environmental Assessment sets the goal for the participating countries to consider the environmental concerns in their plans and programmes, at early stages, to be

able to prevent and minimize any possible consequences that the development plans of the country could have. So this Protocol goes beyond the project level of the Espoo Convention, as far as it affects the decision making at earlier stages.

The Kyiv (SEA) Protocol (2003) defines “Strategic Environmental Assessment” as:

“[T]he evaluation of the likely environmental, including health, effects, which comprises the determination of the scope of an environmental report and its preparation, the carrying-out of public participation and consultations, and the taking into account of the environmental report and the results of the public participation and consultations in a plan or programme” (Article 2.6)

In the context of topic of this thesis, the SEA represents a valuable tool for the evaluation and consideration of the possible effects that certain plan/programme could have, to be taken into account and facilitate the choice of the options that will have the least negative effect on the environment. It allows broadening the possible alternatives at the earlier stage of planning and strategic decision making by authorities (UNECE, 2007a), which is critical in cases of large transboundary infrastructure projects like oil and gas pipelines.

The studies on the effectiveness of the SEA in practical implementation have found that factors such as the coincidence of interests, certainty of the knowledge base and case by case specificities of decision making processes (Runhaar and Driessen, 2007). Van Buuren and Nootboom (2009) also indicated that the efficiency of the SEA depend on the time of its commissioning, the level of importance it was given in the decision making process and the transparency of the application. The factors outlined could pose an obstacle in the case of Central Asian transition period, which also applies to the Caspian region in general. Thus, although overall improvements in the application of the environmental aspects in the policies have seen some

improvements, none of the Central Asian countries have signed the Protocol on SEA to the Espoo Convention. Moreover, the level of knowledge of the authorities dealing with environmental issues is not sufficient for effective functioning of SEA (OECD, 2009). While experts of environmental agencies are generally well trained, they do not have enough knowledge base for development of economic argumentation in favor of environmental sustainability (OECD, 2009). The structural and administrative deficiencies at the current level of development in transition countries, including lack of transparency, insufficient knowledge base, and low level of priority given to environment in decision making could postpone the implementation of SEA in the region, and as a result effect the environment.

3. EIA IN TRANSBOUNDARY CONTEXT OF THE CASPIAN SEA REGION

According to the legislation of Central Asian countries, international law recognized by them, are a priority over national legislation. Out of 5 countries in the region, Kazakhstan (2000), Kyrgyzstan (2001) and Tajikistan (2004) are parties to the Espoo Convention. In addition, most countries are party to the Aarhus Convention, in which there are specific references to the Espoo Convention, as well as the conventions on Biodiversity, POPs, and others where there are specific requirements for EIA and is recommended to transboundary EIA (UNECE, 2004a) Considering the geographical location of the Caspian Sea, it is important to note that among Central Asian countries two are littoral states of the basin, which are Kazakhstan and Turkmenistan. Other Caspian littoral states, among which are Azerbaijan, Russian Federation and Iran have significant differences in their participation. Thus, Azerbaijan has ratified, and Russian Federation signed but not ratified the Convention on Environmental Impact Assessment in a transboundary context (Espoo convention) (UNECE, 2011c). Turkmenistan until now has not signed the convention, while Iran is not a member of the UNECE. Though, the possibility of

its membership is considered due to the amendment of the Espoo convention, which will open the Convention to accession upon approval by UN Member States that are not members of the UNECE (UNECE, 2004b, UNEP/CEP, 2003). According to Peterson and Lahtvee, the issue of ratification Russian Federation is complicated by the long distance borders of Russian vast territories that is the reason for large number of bordering neighbors (22 countries), that requires to establish the regulations with each of them for the purposes of assessment of the transboundary environmental impact (Peterson and Lahtvee, 2007). Despite challenges to the ratification, Russia's legislation refers to the Espoo Convention as a framework for the environmental expertise when a planned project can have international impact (Popravko, 2011) The Nord Stream project, where Russia acted as a party of origin following the Convention requirements, though without ratification of the Convention, is one of the examples for the international project with possible transboundary impact (Hernández, 2008). Thereto the Espoo Convention, in 2003 as a part of the initiative of regional environmental protection measures Russian Federation became a party to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (also called Tehran Convention). There more detailed overview of the arrangements in the Caspian Sea region would be needed.

3.1 Tehran Convention

Tehran Convention aims at reaching agreement on a regional effort to protect the fragile environment of the Caspian Sea by the governments of Azerbaijan, the Islamic Republic of Iran, Kazakhstan, Russia and Turkmenistan. Among four protocols to the Convention that are given priority, one of which is a Protocol on EIA in a Transboundary Context. The protocol was agreed upon during the Tehran COP meeting 2008, however due to some issues of clarifications remains unsigned by the parties of the Tehran Convention to date

(COP II, 2008a). However, Peterson and Lahtvee (2007) saw it as a basis to create mechanisms and provide experience of transboundary EIA regionally to be further transposed to other regions.

Kersten (2008) saw in the Tehran Convention the perspective to become an important forum for environmental discussions in the region, though pointing out that the Treaty “*provides only a vague commitment to transboundary EIA*”, by referring to the Article 17 of the Treaty, where the Parties are obliged to “*take all appropriate measures to introduce and apply procedures*” of EIA.

Framework Convention for the Protection of the Marine Environment of the Caspian Sea was signed by Caspian littoral states, which include Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan, in November 2003, Tehran, Iran (entered into force in August 12, 2006) (Tehran Convention, 2011). There were several Protocols to the Convention, that “were given priority” in the negotiations between Parties, which are:

- The Protocol on Protection of the Caspian Biodiversity.
- The Protocol on Land-Based Sources of Pollution;
- The Protocol Concerning Regional Preparedness, Response and Cooperation in Combating Oil Pollution Incidents.
- The Protocol on EIA in a Transboundary Context (CEP, 2011)

The protocols were developed under auspices of the UNEP Regional Office for Europe, which acts as Interim Secretariat of the Framework Convention, and International Maritime Organization (for the Protocol Concerning Regional Cooperation in Case of Emergency) (UNECE, 2008). The Protocol Concerning Regional Preparedness, Response and Cooperation in Combating Oil Pollution Incidents were agreed upon by the parties during the Protocol Harmonization Meeting in 2008, though some disagreements on the terms used in the Protocol still not resolved (COP II, 2008b). The finalization of the Protocol on EIA in a Transboundary Context was conducted under the assistance of the Espoo

Convention Secretariat which emphasized that the substance of the Protocol is in accord with the Espoo Convention (UNECE, 2008).

The regional cooperation between littoral states which resulted in the signing of the Tehran Convention could not be possible without another important initiative in the region, which was a result of the recognition by the littoral states of the growing environmental issues and burden on the Caspian basin, the Caspian Environmental Programme (CEP), which is a regional partnership between the five littoral states of the Caspian Sea and international organizations, such as the EU, UNDP, UNEP and the World Bank, was established in the 90s (CaspEco, 2004). The goal/mission of CEP is the environmentally sustainable development and management of the Caspian Sea environment. One of the mechanisms to achieve this goal is identifying the priority environmental issues and developing a regional Strategic Action Programme (SAP) and five National Caspian Action Plans (NCAPs) (CEP, 2011).

3.2 The Protocol on EIA in a Transboundary Context

The Protocol on EIA in a Transboundary Context to the Tehran Convention was initiated in 2004, based on the earlier efforts on development of the Guidelines on the EIA in transboundary context in the Caspian Region ("the Guidelines") (Tsutsumi and Robinson, 2008). The Protocol on EIA in a Transboundary Context, which is the document critical for the practical start of the implementation of transboundary EIA in the region, is still in the process of negotiations between littoral states. The Progress Report of to the Conference of the Parties (COP) to the Tehran Convention indicated that the as a result of negotiations during 2010, full agreement was reached on the text of the draft Protocol on EIA and the initiation of internal approval process by the Caspian states was requested in May 2010, which should result in the signing of the Protocol during the next COP (COP III) (TC/COP3/2, 2010), which is planned to

be held in Astana, Kazakhstan later this year⁹. According to the CaspEco (2008), the negotiating process on the Protocols in general, and this Protocol particularly, depend on several factors. Caspian littoral states until now have not resolved the issue of the legal status of the Caspian Sea, which is one of the obstacles to define the scope of the Protocols to the Tehran Convention. Decision making process that includes several governments on the issues of technical obligations is extensive and difficult to negotiate. Moreover, each of the Caspian littoral states try to bring the Protocol to be fully compatible with their national legislation, which is complicated by the different levels of accession to the multilateral agreements of the Caspian states (CaspEco, 2008).

3.2.1 The Guidelines on Transboundary EIA in the Caspian Sea Region

The Guidelines mentioned previously were designed especially for the Caspian Sea region, which was mainly caused by the need for have a tool to deal with the issues of environmental protection in a situation where some of littoral states are Parties to the Espoo Convention and others are not, and the absence of the regional procedures for transboundary EIA (Tsutsumi and Robinson, 2008). The content of the Guidelines is separated into three parts, devoting each part separately for Country of origin, Affected countries, and Guidelines for Developers. Due to the voluntary nature of the Guidelines, it only provides “suggestions” and based on the requirements of the Espoo Convention. It specifies the screening process (Article 2) and the notification procedure is described in more detail, with special attention to the language of the notification package and giving the list of the Points of Contact, specifically identifying each responsible person in the each littoral state (Article 3, 4). The Article 8 on the public participation is specified as a draft EIA stage and besides giving basic information on the public participation, mentions the costs of the

⁹ According to the Tehran Convention website, the COP III was rescheduled to be held in early 2011. Though at the time of writing of this thesis, the date was still not announced.

consultations that according to the Guidelines should be covered by the developer of the project.

Tsutsumi and Robinson (2008) describes two, though unsuccessful, attempts to implement the procedures of the transboundary EIA in the Caspian Sea region by Turkmenistan and Azerbaijan¹⁰. Both projects were co financed by the European Bank for Reconstruction and Development, and International Financial Institution, and at the time of project review neither of the countries were Parties to the Espoo Convention (Nazari, 2003). Both cases were connected to the oil exploration in the region and the attempts to initiate the process already failed in the beginning, when they could not receive any response or acknowledgement of receipt of notification from other Caspian states. The failures were attributed mostly to the issues of communication and the importance of establishment of clear procedures for the Parties, though also mentioning the role of political issues surrounding the legal status of the Caspian basin (Tsutsumi and Robinson, 2008). Moreover, Nazari (2003) concludes that the countries lacked institutional capacity for the conduct of the transboundary EIA and due to the reason of not yet being Parties to the Espoo Convention, did not have commitment to pursue the procedure.

Whereas general content of the Guidelines, as well as the draft Protocol, based on the procedure of the Espoo Convention, there are some features that specific to the Caspian Sea region. Here some of these differences will be described as in the draft of the Protocol on EIA in a Transboundary Context to the Tehran Convention.

¹⁰ In Azerbaijan – Chirag Early Oil Project (Chirag offshore oil field development), operated by British Petroleum. In Turkmenistan – Dragon Oil (Block III), Cheleken (the phased upgrade of the Lam and Zhdanov oilfields in shallow offshore of the Caspian Sea) (Nazari, 2003; Tsutsumi and Robinson, 2008).

3.2.2 The draft Protocol on transboundary EIA in the Caspian Sea Region

The notification process by the competent authority of the Party of origin is added with the obligation to send the notification package (including the letter of notification and relevant information) (Article 5.2) not only to potentially Affected parties but also to the Secretariat of the Tehran Convention (Article 5.1), which is then responsible of making them available to the other Contracting Parties¹¹. During the whole transboundary EIA procedure the Secretariat keeps the role of coordinator of communications among Parties and ensures the proper functioning of this mechanism. Thus, the Secretariat provides the translation of notification documents into English and Russian (Art.5.3), keeps all the documentation on the proposed activity which is sent to the Secretariat by Party of Origin and Affected parties, and makes it available at a request of any party concerned (Article 7.3 (b)). More specifically the functions of the Secretariat are described in the Article 13.2, covering such issues as availability of information for all Contracting Parties, monitoring of the implementation of the Protocol, providing the advice and technical assistance on the effective implementation of the Protocol, cooperation with other regional and international organizations. The availability of all information to the Secretariat makes it possible to notify all members of the public and other countries that may not have been notified in the Caspian Sea region, without distinction of being participating as “affected party” or not basin (Tsutsumi and Robinson, 2008).

Moreover, the draft Protocol places responsibility on the Party of origin to contact the Affected parties and the Secretariat to which the notification was sent to follow up and ensure the receipt of the notification (Article 5.4).

Article 8 specifies the responsibilities of the Concerned Parties to ensure the public participation by making the information on the proposed activity and the

¹¹ The draft Protocol does not provide definition of the Contracting Party, though describes “Concerned Party” as “Party of origin and the Affected Party of environmental impact assessment procedure” (Article 1 (c)).

draft EIA documentation¹² available “and easily accessible to the public”, which also includes the hard copies of EIA documentation.

The draft Protocol also devotes separate article on the issues of the funding to ensure the functioning of the mechanism set (Article 14). It stimulates the Contracting Parties to assist financially for “the formulation and implementation of related programmes, projects and measures” on the voluntary base, specifying it by “as far as possible” (Article 14.1).

The Article 23 of the draft Protocol, similarly to the Article 37 of the Tehran Convention, mentions that “Nothing in this Convention shall be interpreted as to prejudice the outcome of the negotiations on the final legal status of the Caspian Sea”, which once more highlights the ongoing discussions between the Caspian littoral states on the long lasting issue of method of division of the basin depending on the legal status of the Caspian basin. This aspect will be discussed in more detail in the next part of this thesis.

¹² According to Article 7, a draft of the EIA documentation should be prepared by the Project developer and the Party of Origin shall ensure its implementation

4. THE ENVIRONMENTAL SITUATION OF THE CASPIAN BASIN

4.1 General characteristics

The unique natural and geographical features of the water body that lead to formation of valuable for the modern age energy resources, namely oil and gas, which is known as the Caspian, gave rise to wide range of contextual interests and negotiations that still are under attention of world community. By its natural characteristics Caspian basin represents a largest enclosed body of water in the world that is salty and situated on imaginary line known to divide the Europe and Asia. The Caspian basin has no outlet to the World Oceans (UNDP, 2010) and whereas there are 130 rivers entering the sea, only one river Volga feeding the 80 percent of its inflow. (CEP, 2011; Kosarev, 2005) Historically, the Caspian basin is a remnant of an ancient ocean Tethys, due to that reason the sea's water is three times less saline than ocean water. About 50-60 million years ago, Tethys connected the Atlantic and the Pacific Oceans, but, due to a gradual shift of continental plates, it lost its connection with the Pacific and later with the Atlantic (Ghafouri, 2008).

The Caspian Sea is distinguished by its geographical location and also physical features like the surface level of about 27 meters below mean sea level and remarkable length of 1 200 km (UNDP, 2009; CEP, 2005). Many experts compare the Caspian with the largest lakes such as American Great Lakes and Lake Victoria in East Africa due to its surface area of more than 370 000 square km (CEP, 2005), which though it is not a sea nor a lake, it is comparatively larger than lakes mentioned. Due to its orientation, the Caspian is characterized by large north-south climatic differentiation, where on the North, on shores of Russia and Kazakhstan there is extreme continental climate and on in South on shores of mainly Iran a sub-tropical climate exists (UNDP, 2009). These different climates are home to significant biological diversity, also enhanced by the extensive wetlands in deltas of Volga, the Ural, Kura Rivers and the most saline part of the sea so called Kara Bogaz Gol, which is also considered as a

separate lake (CEP, 2005). One of the important features of the sea is the sea level fluctuations, mainly caused by natural factors of differentiating inflow, and with the level of about 27 meters the coastal line length is approximately 7 500 km long (Kosarev, 2005) (Map 1).

Map 1: The Caspian Sea drainage basin (Source: UNEP/GRID-Arendal. *The Caspian Sea drainage basin. UNEP/GRID-Arendal Maps and Graphics Library. 2007. Available at: <http://maps.grida.no/go/graphic/the-caspian-sea-drainage-basin>. Accessed May 24, 2011*)



Due to its long history of geographical isolation, the Caspian Sea is sometimes compared to Australia, because of high level of endemism of species and ecological processes unique to this sea (UNDP, 2009; CEP, 2005). As such, there are 147 species of fish, among the endemic aquatic taxa of over 300 (UNDP, 2009; CEP, 2005) (Table 5.1). Though, internationally the Caspian bioresources is mostly known for the caviar breeding sturgeon population, five genetically distinct subpopulations of which are identified in the Caspian Sea. Approximately 90% of world's wild caviar production is from Caspian region, which is supplied to the European Union, Japan and the USA (UNEP/GRID, 2007)

However, these species are listed as Critically Endangered by the International Union for Conservation of Nature and even more than other species (IUCN, 2010) Thus, according to Dr Mohammad Pourkazemi, chair IUCN/SSC Sturgeon Specialist Group (IUCN, 2010):

“Sturgeon have survived dramatic change over the past 250 million years only to face the serious threat of becoming extinct as a direct result of human activities. Illegal catch, over fishing, the breaking up of the migratory routes and pollution are the key elements that have driven almost all species to the brink of extinction”

Moreover, the only marine mammal of the Caspian which is also endemic to this region, the Caspian seal (*Phoca caspica*), is also very vulnerable species, was enlisted as Endangered in 2008 by IUCN, which was the deterioration of situation from the previous periods (UNDP, 2009).

Table 4.1 Biodiversity in the Caspian Sea (Approximate numbers)

Biodiversity in the Caspian Sea: approximate numbers				
Biota group	Total species in the Caspian Sea	Endemic species	Alien species	Listed species (Red Book)
Phytoplankton	441	17	6	?
Zooplankton	315	64+	7	10
Zoobenthos	380	190	12	20
Fishes	133	54	17	27
Marine and land mammals	125	1	3	41
Birds	466	?	?	63

Note: figures are approximate since the literature does not agree on values.
Source: Transboundary Diagnostic Analysis for the Caspian Sea, The Caspian Environment Programme, 2002.

Source: UNEP/GRID-Arendal. *Biodiversity in the Caspian Sea (Approximate numbers)*. UNEP/GRID-Arendal Maps and Graphics Library. 2007. Available at: <http://maps.grida.no/go/graphic/biodiversity-in-the-caspian-sea-approximate-numbers>. Accessed May 24, 2011.

However, the characteristic for which the Caspian Sea is known worldwide appears to be its huge oil reserves, as it was remarked by Dick Cheney, and later by CEO of Halliburton “I cannot think of a time when we have had a region emerge as suddenly to become as strategically significant as the Caspian” (Kleveman, 2003). There range of natural resources brings with them the rising risks for the environmental situation in the region. Thus, according to Hossein Ganjidoust, daily extractions of crude oil and gas and transportation of them are the main pollution sources of the Caspian Sea (Ganjidoust, 1994). Moreover, the pollution from the cities surrounding Caspian and industries enter the Caspian Sea either directly or through rivers. The Sea already suffers from an enormous burden of pollution from oil extraction and refining, offshore oil fields,

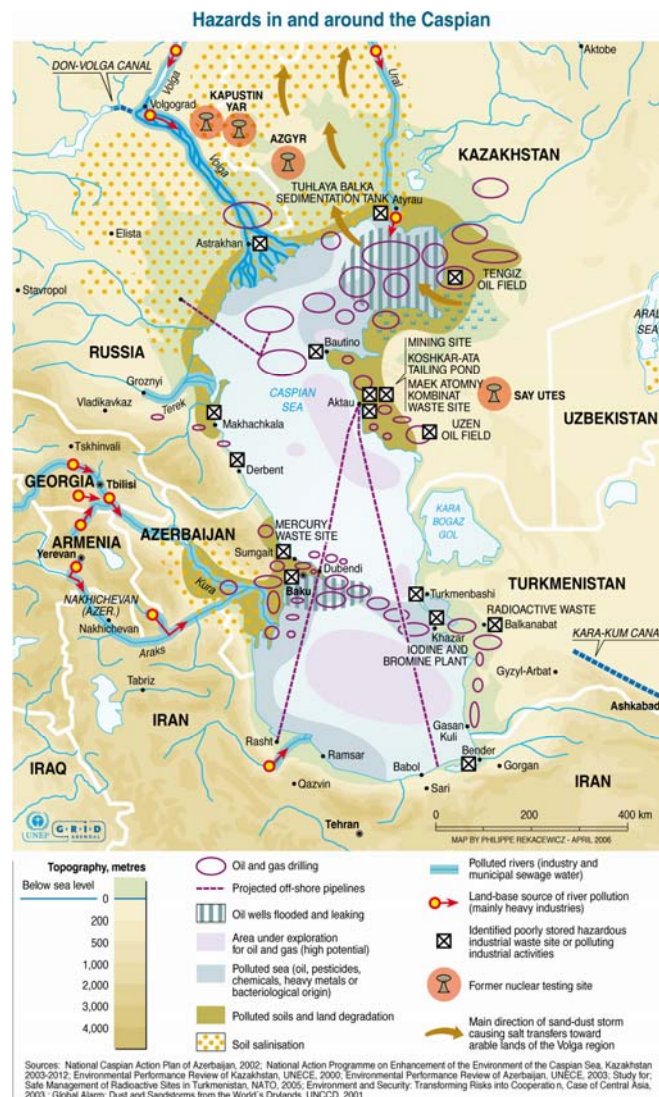
radioactive wastes from nuclear power plants and huge volumes of untreated sewage and industrial waste introduced mainly by the Volga River.

4.2 Environmental issues

The measurements on the pollution levels in the Caspian Sea do not have a long history, and systematic observations began only at the end of 1970s (Korshenko, 2005). During the years before the dissolution of Soviet Union, 3 174 stations were functioning in the region, making continuous monitoring of water pollution. This number decreased dramatically after 1992, when the monitoring was mostly conducted through expeditions (Korshenko and Gul, 2005). Currently, there is lack of reliable data available and regular monitoring is not conducted even in protected areas, coupled with the differences in methods and techniques used for measurements in littoral states (CEP, 2007). Within framework of Caspian Environmental Programme, Caspian states took initiative to overcome these issues by development of Strategic Action Plan and National Action Plans on the fields specified through the Caspian Transboundary Diagnostic Analysis (TDA), where the existing environmental issues in the Caspian Sea region defined as decline in fish stocks, degradation of coastal landscapes, threats to biodiversity, and overall decline of environmental quality (CEP, 2002)

Besides these problems, the analysis bring out the emerging issues, which are the introduced species, such as one of invasive species the comb jelly, brought from North America by ships, having a drastic effect on the entire food chain of Caspian habitat; and the contamination from offshore oil and gas activities (CEP, 2003).

Figure 4.1: Pollution sources and locations in the Caspian basin



Source: UNEP/GRID-Arendal. Potential environmental hazards in the Caspian Sea Region. UNEP/GRID-Arendal Maps and Graphics Library. 2007. Available at: <http://maps.grida.no/go/graphic/potential-environmental-hazards-in-the-caspian-sea-region>. Accessed May 12, 2011.

There were several root causes identified as the most pressing, such as the use of old technologies for oil and gas extraction, insufficient control of harmful pesticides, overfishing due to inadequacy of quotas and the introduction of invasive species that could be regulated through the cleansing systems for tanks and hulls (Barannik, 2004).

Korshenko and Gul (2005) noted drastic decrease in concentrations of total petroleum hydrocarbons from 1980s to 2004, where high concentrations were mainly found in shallow waters in Volga delta. Similar trends were observed for the detergents and phenols, as well as for the pesticides. The main reason for the decrease was clearly the general economic decline in the region in 1990s. However, the TDA report (2007) indicated that despite decrease in flux of several pollutants, contamination with chlorinated pesticides is pollution results from recent activities in the region (CEP, 2007). Moreover, the studies of sectoral land based sources of pollution suggested that the land based oil pollution from Azerbaijan, Iran and Russia, agricultural, municipal wastes and industrial pollution from *Iran and Russia poses serious challenges* (CEP, 2007). *Bashkin (2006) asserted that "The North Basin of the Caspian Sea is less polluted with heavy metals, pesticides, and probably hydrocarbons than commonly assumed"*, also noting that *"Pollutant levels in organisms such as fish and seals are generally lower or comparable to those of other large seas and lakes, such as the Mediterranean, Black, and Baltic Seas"*. Though it is questionable whether the pollution levels acceptable in other seas are acceptable in an enclosed water body with enhancing offshore oil and gas development such as happening in the Caspian.

4.2 Possible Impacts of the Trans-Caspian pipeline project on the Caspian Sea

The construction of a submarine pipeline in the waters of the Caspian Sea could impose additional pressure on the fragile environment and stress the already declining biodiversity in the region. Such risks are considered in every similar projects and the critical point is the evaluation of possible alternatives and possible environmental impacts as early stages of the project. In this case the project considers possibility of gas pipeline, and probably also an oil pipeline. Each of them present different risks, thus, whereas the leaks from the gas pipeline could lead to an explosion, the oil spills present the risk of

despoiling large areas of terrain (UNDP/World Bank. 2003). Besides that Rogozhina (2010) indicated that the Caspian is a region of high seismic activity and subject to mud volcanism. Also it was suggested that due to the differences in depth of the seabed, the suggested oil pipeline could probably be routed to avoid the Derbert depression and adjacent deep zones, and follow the route of depth less than 100 meters, which is also, however, is subject to varying differences up to 250-300 meters (Rogozhina, 2010). Though it is also important to consider the alternative transportation which is currently chosen for the project, which is the tanker transportation across the Caspian, which could be not less risky for the environment. However, the issues of technologies available and the assessment of the oil spill risks could not be covered within this thesis and needs further research that would include these aspects.

Despite of high probability of oil spills, no properly functioning mechanism for the joint measures of the prevention and control of the environmental situation in the region is set up, mainly due to the unresolved legal status of the Caspian basin. Caspian Sea is an enclosed body of water, and here particularly the risk of ecological disaster is great. Dividing the Caspian into national sectors, the Caspian states lose the opportunity for joint monitoring of the environmental situation as an opportunity to jointly develop and monitor compliance with environmental protection. In this setting, the littoral states till the recent time have not approved any method of economic evaluation of the environmental damages possible.

The issue of inadequate coverage of marine pollution in the Caspian basin is mainly stressed by the scholars of Iran and Russian Federation, expressing concern of the contemporary ecosystem situation and the consequences of the oil and gas exploration and exploitation in the water body. Thus, Jafari (2010), reviewing the sources of the anthropogenic pressures, underlines the impact of oil pollution brought through the sources of daily extraction and transportation of oil, oil spillages due to accidents and from tankers carrying hydrocarbons. The

decreases in biodiversity of benthic fauna from 78 to 46 species, and the drop of sturgeon catch by 90 percent are seen by the author as one of the consequences of lack of administrative coordination and international cooperation between littoral states.

5. THE TRANS-CASPIAN PIPELINE PROJECT

5.1 Pipeline network in the Caspian Sea Basin

Since early 1990s after the collapse of the Soviet Union all of the states that were previously functioning as one part and heading for the bright Communist future, were already looking for their own path of development. According to the World Energy Outlook 2010, the Caspian countries account of only 1,4 % of global energy primary use, due to overall economic decline after the dissolution of the Soviet Union and since then have steadily growing, though until now it had reached only 85% of its primary energy demand of 1990s (WEO, 2010). The 1990s were also highlighted by the speculations on how Caspian oil and gas abundant countries would be transported to the global markets (Raballand and Esen, 2006; Chufrin, 2001) In early 90s all oil and gas transportation relied on the Soviet pipelines' system that was able to export the hydrocarbons to international markets only through the territory of Russian Federation, particularly, the only existing pipeline infrastructure was the Transneft pipelines network¹³ (Raballand and Esen, 2006) However, due to political changes each post-Soviet country chose different development paths and one of main objectives was getting independence not only politically, but also economically. Large multinational companies that invested in the early 90s in the oil and gas sector in the Caspian Sea basin were striving to diversify the export routes. Moreover, there were also interests of foreign governments which were trying to use political and economic incentives to influence the pipeline routes in the region (Raballand and Esen, 2006; Chufrin, 2001). Particularly, US government

¹³ Transneft is a Russian state owned pipeline network company (75% Russian government and Interros and Sputnik 25%) (Raballand and Esen, 2006)

was one of the active actors in the region, supporting all possible routes that could bypass Russia and Iran. Baku-Tbilisi-Ceyhan (BTC) pipeline is one such illustrative example, as well as the Trans-Caspian pipeline (Starr and Cornell, 2005; Raballand and Esen, 2006). In fact, the idea of the construction of the Trans-Caspian pipelines, thus including oil and gas was raised due to the concerns over the capacity of the Baku-Tbilisi-Ceyhan pipeline to be filled with Azeri oil, which was considered not enough to justify the construction of BTC pipeline (Killgore and MacKinnon, 2000). The experts were considering newly discovered Kashagan oil field in the Kazakhstani sector of the Caspian Sea to provide enough volume for the BTC pipeline (Cornell, Tsereteli and Socor, 2005; Cutler, 2008). Kashagan oilfield is one of the largest fields in Kazakhstan, among namely Tengiz (proven reserves of 9 billion barrels) and Karachaganak (proven reserves of 2.4 billion barrels) (EIA, 2008) oil fields (KMG, 2011). Kashagan oil was discovered in July 2000 and was described as the largest field since the Prudhoe Bay, Alaska, in 1968 (Cutler, 2008; KMG, 2011), and containing the largest reserves outside the Middle East, with recoverable oil reserves estimated as 1 475,5 million tons (KMG, 2011)¹⁴. As such, the Kashagan oil field is the central part of the Kazakhstan Caspian Transport System (KCTS) project, realization of which was postponed not until 2016 (Konyrova, 2010).

Currently, the oil pipeline export system has widened, though the dominance of the routes that go through Russia territory is not overcome (Table 5.1).

Table 5.1: Exports of oil from the Caspian basin

Route	Export		Source of Oil (in mt)
	kb/day	mt/year	
Tengiz-Novorossiysk (CPC Pipeline) Kazakhstan Russia	652	32,6	Kazakhstan (25,6) Russia (7,0)
Baku-Tbilisi-Ceyhan (BTC Pipeline)	570	28,5	Azerbaijan

¹⁴ Kashagan project (also called the Northern-Caspian Project) participants are KazMunayGas, ENI, Total, ExxonMobil, Shell (16,8% (each), ConocoPhillips (8,49%), Inpex (7,56%) (KMG, Accessed on 01.05.2011)

Azerbaijan-Georgia-Turkey			
Atyrau-Samara Pipeline Kazakhstan-Russia	320	16,0	Kazakhstan
Baku-Batumi Azerbaijan-Georgia (by train)	136	6,8	Azerbaijan (4,4) Kazakhstan (2,4) (shipment by barge to Baku)
Baku-Novorossiysk Pipeline	134	6,7	Azerbaijan (2,3) Kazakhstan (4,4) (shipment by barge to Machakala (Russia))
Neka Iran: deliveries by barge	112	5,6	Turkmenistan (3,5) Kazakhstan (2,1)
Total	1 924	96,2	

Source: IEA, *Perspectives on Caspian Oil and Gas Development* (2008)

The Table shows main routes of oil transportation by the pipelines and other means, including trains and shipments by the sea, from the Caspian Sea region. As it can be seen from the volumes of oil exported, the largest exports are carried by the CPC Pipeline (Caspian Pipeline Consortium), which is critical, especially for the Central Asian states, particularly Kazakhstan, due to its landlocked geographical situation and dependency on the pipelines that mainly go through the territory of Russia. Among the Caspian littoral states, Kazakhstan was one that received the vast amount of foreign investments since 1991. Thus, the investments of about 69 billion US dollars, which is over two-thirds of the total foreign investments since 1991 to the countries of the Caspian region, and above 40%, share of the regional GDP (OECD/IEA, 2010). Due to these and other factors, this thesis focuses on the oil transportation system and alternatives from Kazakhstan, also considering the role of proposed Trans-Caspian Oil Pipeline Project that is one of the critical projects in the region.

At the current situation, Kazakhstan exports oil mainly through four oil pipelines, which are: (1) Caspian Pipeline Consortium (CPC) Pipeline, (2) Atyrau-Samara Pipeline, (3) Atasu-Alashankou oil pipeline (Kazakhstan-China), (4) Aktau Sea Port (KMG, 2011).

Figure 5.1. Existing and planned routes of oil from Kazakhstan



Source: Rinhat Mukhoryapov, "National Company KazMunayGas: Oil and Gas Policy of Kazakhstan, Diversification of Kazakh Oil & Gas Supply", paper presented at the 1st Mediterranean Oil & Gas Summit, organized in Athens by the Middle East Economic Survey & Energy Stream, on 28-30 June 2010, p.4.

The overall export capacity of the existing pipeline routes from territory of Kazakhstan is over 60 million tons per year, according to the Chairman of the management Board of National Company "KazMunayGaz" (Kabyldin, 2010). In 2009, the CPC pipeline¹⁵ carried the largest volume of export (27,5 million tons), whereas Atyrau-Samara and Kazakhstan-China pipeline ("Atasu-Alashankou") transported 17,5 and 7,7 million tons of oil, respectively. The rest amount of 11,1 million tons were the maritime exports (KMG, 2011). The main destination of the Kazakhstani oil exports is Europe (80%), as was noted by the Kabyldin.

From the perspective of analysis of the possibility of construction of the Trans-Caspian pipeline, it is important to consider the volumes of sea transportation

¹⁵ CPC (Caspian pipeline consortium) project shareholders are the Russian government – 24%, Government of Kazakhstan – 19%, Chevron -15%, Lukariko B.V.-12,5%, Exxon -7,5%, Rosneft-Shell - 7,5 %, CPC Company (Russia) – 7%, British Gas -2%, Agip-2%, Kazakhstan Pipeline Ventures Ltd - 1,75% and Orix Caspian Pipeline Ltd - 1,75% . The expansion of the CPC (in 3 phases 2012-2015) will increase the capacity (from Kazakhstan) from current 26 million tons to 52,5 million tons per year (<http://www.kmg.kz>. Accessed 02.05.2011)

from the Kazakh ports. According to KazMunayGaz, there are three main transportation routes of the oil: Aktau-Baku (continued by the railway to Batumi, Georgia), Aktau-Makhachkala (continued by the pipeline to Novorossiysk), and Aktau-Neka (swap operations in the Persian Gulf) (KMG, 2011). Despite the lower volumes being exported by sea fleet (7,3 million tons), due to increasing transportation expected, the Kazakh company “Kazmortransflot” (subsidiary of KazMunayGaz) is planning to number of its own fleet and rent large capacity tankers. Guliyev and Akhrarkhodiyeveva (2009) noted the role of the Azeri and Kazakh shipping companies that is interconnected with the proposed Trans-Caspian pipeline. Both shipping companies are state supported and their functioning lacks a clear institutional framework and transparency, and the Caspian marine transportation is almost closed to any competition, which is reflected in high costs of shipping, even in comparison to other international prices. Moreover, the tankers used for the transportation are small capacity and the large tankers are difficult to operate, while they are also expensive (Guliyev and Akhrarkhodiyeveva, 2009). Authors specify the opinion of experts interviewed that these companies, due to their affiliation to the state/ruling elites, representing resistance to the construction of the Trans-Caspian pipeline. Socor (2006) asserts that for the large volumes of oil, as the ones expected with the start of the Kashagan oil field, the transportation by the means of tankers is the least cost effective option, whereas the direct pipeline to Baku is a viable at below 20 million tons of oil annually.

5.2 The Trans-Caspian Pipeline (Kazakhstan-Azerbaijan)

Since early 90s the Kazakh authorities as well as foreign oil and gas companies were considering the option of transportation that will bypass Russian territories. The pipeline that was considered a possibility for Kazakhstan is a seabed 600 km Trans-Caspian pipeline that could transport oil/gas from Aktau, Kazakhstan to Baku, Azerbaijan or possibly from both Kazakhstan and Turkmenistan (Rabinowitz et al., 2004). The main concerns were raised by

Russia and Iran, who asserted that the construction of such a pipeline could be highly risky for the landlocked water basin and the unique nature of the Caspian. The main arguments against such project were mainly based on environmental specificities of the Caspian, such as the complicated terrain of the seabed and high seismic activity. Moreover, the opponents refer to the other than ecological reasons, such as the hypothetical possibility of “technological terrorism” and finally insisting on the “consensual decision making”, that would require the resolution of the legal status issue (Rogozhina, 2010; Kurtov, 2010; IEA/OECD, 2008).

Despite being concerned about Russian opposition to the any project that included construction of the seabed pipeline construction, Kazakh authorities with the support of both EU and the US, prepared the proposal to the European Commission on the construction of a trans-Caspian pipeline in 2007 (Socor, 2007). The European Union financed the pre-feasibility study, which considered three options of trans-Caspian transportation, including the possibility of a seabed pipeline (IEA/OECD, 2008). The study considered the compressed natural gas transportation that requires the construction of infrastructure for that. Other non-pipeline option was the possibility to “land associated gas from offshore Turkmenistan oil production in Azerbaijan” and the last option was the pipeline that could start from Turkmenistan or Kazakhstan (IEA/OECD, 2008). In June 2010, based on the Intergovernmental Agreement between Azerbaijan and Kazakhstan, KMG-Transcaspian, which is a joint venture between the State Oil Company of Azerbaijan (SOCAR) and Kazmunaygaz, announced the first stage of the tender procedure for feasibility study of Trans-Caspian Pipeline Project and the results of the feasibility study for Trans-Caspian Project are not available yet (TCP, 2011).

The proposed Trans-Caspian Pipelines were previously considered a part of a larger Trans-Caspian Oil Transport System which is a proposed project in the Caspian Sea region that would be able to transport oil from Kazakhstan

Caspian oilfields to Baku, Azerbaijan and further mainly through the Baku-Tbilisi-Ceyhan pipeline to the Mediterranean or through the Baku-Supsa Pipeline to the Black Sea. The decision on the project was started by the signing an Intergovernmental Agreement between Kazakhstan and Azerbaijan (two national companies KazMunayGas (Kazakhstan) and State Oil Company of the Azerbaijan Republic (SOCAR) are responsible for realization of the project) in order to facilitate creation of a new oil transportation system across the Caspian Sea in June 2006 (TCP, Accessed 04.05.2011).

Figure 5.2 Kazakhstan Caspian Transportation System



Source: JSC NC "KazMunayGas", Presentation on the "Kazakhstan-USA Investment Forum 2010", New York, November 2010

The issue of possibility of construction of offshore submarine oil pipeline was widely discussed among the politicians of the region and beyond, however, according to the latest review, the project includes:

- Onshore pipeline from Kashagan on-shore plant (located at Eskene, Kazakhstan) to marine terminal in Azerbaijan

- Shuttle transportation of crude oil by tankers
- Reception of oil to terminal in Baku
- Pipeline between Azeri marine terminal and Baku-Tbilisi-Ceyhan pipeline (Sogreah, 2004; KMG, accessed 10.05.2011)

As such, the project does not mention undersea oil pipeline (Tsakiris, 2010), that could be seen as part of Kazakh “multivector” foreign policy aiming at balancing the influence and its relations with other states, particularly powers such as Russia and USA (Cummings, 2003; Legvold, 2003). However, the possibility of Azeri and Kazakh parties to agree on construction of the seabed pipeline is not excluded at all from the project, or as a separate project, though probably not in near future (IHS, 2009).

5.3 The Trans-Caspian Gas Pipeline (Turkmenistan-Azerbaijan)

The proposals on the possibility of construction of a Trans-Caspian pipeline that could transport mainly gas from Turkmenistan and Kazakhstan were discussed since mid-1990s. Turkmenistan interest and support in the project was signified by the signing of intergovernmental declaration in 1999 (IEA/OECD, 2008), though it did not materialize until recently.

In 2008 OMV Gas & Power GmbH (Vienna) and RWE Supply & Trading GmbH (Essen) jointly established the “Caspian Energy Company Ltd.” (CEC), the goal of which is to *“explore comprehensive infrastructure solutions that will link the vast gas resources of the Caspian region to Europe”* (OMV, 2008). This initiative is a part of the Nabucco project, where the Trans-Caspian pipeline could connect Turkmen gas export directly to Azerbaijan, and linked to Nabucco pipeline. The Nabucco pipeline project is a main part of the strategic project of the Southern Corridor that is aimed at bringing gas from the Caspian region, Middle East and Egypt to Europe (Nabucco, 2011). The Nabucco pipeline is planned to be a 3 900 km length with capacity of 31 bcm/year, which starts at

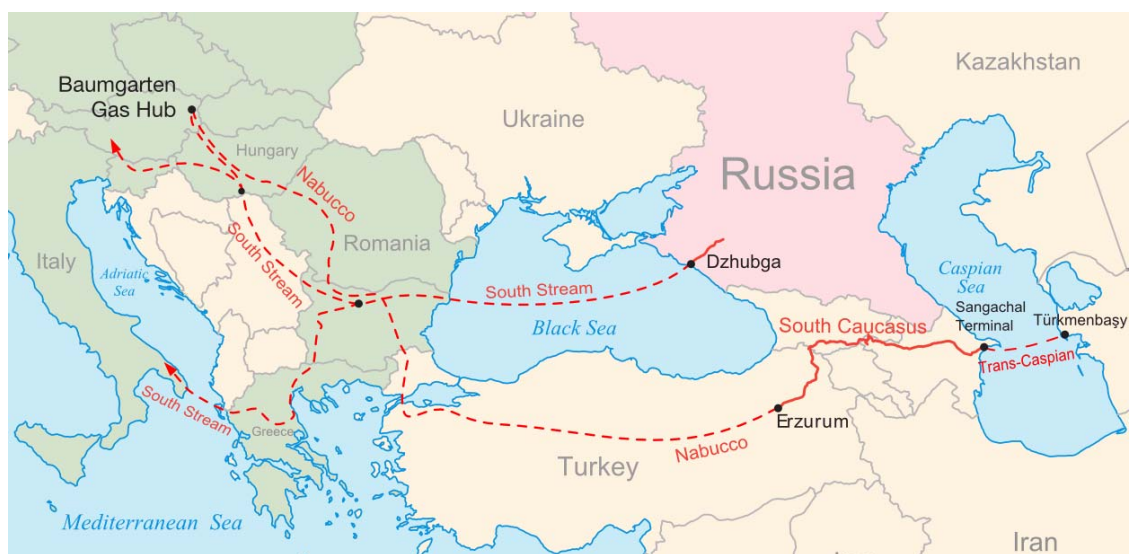
the Georgian/Turkish and Iraqi/Turkish border and transports gas till Baumgarten near Vienna, Austria, while passes through Bulgaria, Romania and Hungary (Nabucco, 2011). The project investment is to be provided by the Nabucco Gas Pipeline International GmbH, which is a consortium of energy companies of five transit countries¹⁶ and RWE-AG (Germany). (QCEA, 2009). This project is considered as a priority commitment of the EU and potential suppliers Azerbaijan, Turkmenistan, Iraq and possibly Uzbekistan and Iran are to be part of it (EC, 2008). As such, the Trans-Caspian gas pipeline project provides the link between this large pipeline project and the resources in the Caspian Sea, particularly in Turkmenistan.

Similarly to the Trans-Caspian pipeline proposed to Kazakhstan, which is fact could have been one project extending from Kazakhstan passing through Turkmenistan waters, it is faced with opposition from Russia and Iran (Rogozhina, 2010; Kurtov, 2010; Grewlich, 2011). Despite Russian arguments presenting the environmental concerns as the basis for opposition, most of the experts agree on the point that the main reason is the political interests as well as the will of Russia to keep its dominance as the main supplier on the European energy market. Thus, Grewlich (2011) mentions that Russia's Gasprom opposes the Nabucco project because the main strategic goal of it is to diversify Europe's dependence on Russian gas. Though, author notes that the capacity of projected 31 bcm/year that the Nabucco will be able to bring is only about 6 percent of the gas imports needs of EU (Grewlich, 2011). Moreover, Russia does not only bring the political, economic and environmental reasoning of the unconstructiveness of the Nabucco project, but in parallel launches new projects that can make Nabucco pipeline with empty hands. One of such attempts is the South Stream project, launched in 2007 by Italian Eni and Gasprom, which could carry 63 bcm/year of gas to Europe through the

¹⁶ The energy companies are: the Austrian OMV, Turkey – Botas, Bulgaria – Bulgargaz, Romania – Transgas, and Hungary – MOL, each with equal share of 16,6 % (including Germany's RWE) (Kurtov, 2010)

Black Sea till Bulgaria (South Stream, 2011). Interestingly, the start of the construction of both Nabucco and South Stream Projects is planned for 2013, though Russia plans to export gas by 2015, while Nabucco is planning to flow first gas only in 2017, the delay which is mainly caused by the changes in timing of suppliers in the Caspian and Middle East (Nabucco, 06.05.2011). Moreover, Grewlich (2011) noted one important disadvantage of South Stream project that due to its technical characteristics (900 km length at the bottom of the Black Sea at depth of 2 000 metres) it could be an expensive and risky technology (also Mammadov, 2010), especially keeping in mind already heavy burden of marine oil and gas transportation through the waters of the Black Sea.

Figure 5.3: Proposed Nabucco (including Trans-Caspian and South Caucasus pipelines) and South Stream pipelines



Source: Ramiz Mammadov, "Navigating between Nabucco and South Stream", *European Energy Review, Pipelines politics*, 19 August 2010
 (http://www.europeanenergyreview.eu/site/pagina.php?id_mailing=101&toegang=38b3eff8baf56627478ec76a704e9b52&id=2265. Accessed on 03.04.2011)

These and many other factors that could not be covered in this thesis, makes the project such as the Trans-Caspian gas pipeline a highly controversial part of

a general web of puzzle which include geopolitical interests, economic gains, regional cooperation and confrontations, and most importantly pose a risk for the environment, which in many cases unfairly downgraded in the list of priorities in the decision making. Moreover, it is worth mentioning that the technical issues in the construction of pipelines for transportation of gas and oil differ considerably and each of them has different environmental risks (UNDP/World Bank, 2003).

5.4 The proposed Trans-Caspian Pipeline project and the Transboundary EIA regime in the Caspian

Energy resources rich Caspian region and the Caspian Sea particularly, define the importance of the need for the mechanisms and tools to protect the fragile environment of the sea. Already existing and possible projects, such as the seabed pipeline, could have significant transboundary impacts. However, the littoral states are not yet ready to deal with the issues in the Caspian environment. Until now only Azerbaijan and Kazakhstan are parties to the Espoo Convention, while Russia has not ratified the Convention. Turkmenistan and Iran have not signed the Convention. Though the practical application of the Espoo Convention in the region will be difficult to realize in case of the Trans-Caspian pipeline project, the signing of the Protocol on transboundary EIA to the Tehran Convention ("draft Protocol") (to be signed during COP III this year in Astana, Kazakhstan), will provide a necessary framework for the littoral states. In this part, the draft Protocol application to the proposed Trans-Caspian pipeline project will be explored.

In this case study, the assumption of the proposed 600 km long Trans-Caspian Pipeline project that could transport oil/gas directly from Kuryk port in Kazakhstan to Baku, Azerbaijan will be considered. The pipeline will be constructed on the seabed of the Caspian basin through the marine area of two states, Kazakhstan and Azerbaijan. Based on the experience of the Nord

Stream project, it will be considered that the owners of the pipeline will be energy companies of Kazakhstan and Azerbaijan (KazMunayGaz and SOCAR) and other stakeholders will probably be international companies developing the Kashagan oilfield, the main supplier of hydrocarbons for the pipeline (among which are ENI, Total, ExxonMobil, Shell). As such, according to Article 1a of draft Protocol, Azerbaijan and Kazakhstan will be the Parties of Origin, and the Affected parties will be Turkmenistan, Russia and Iran (Article 1b). However, Article 1 b specifies that *“The marine area within which the Contracting Party(ies) can be considered as Affected Party shall be defined in accordance with the final legal status of the Caspian Sea”*. The issue of the legal status has not been resolved since early 90s, the problem that will be discussed in detail in the next Chapter. The challenges of the transboundary EIA already start with the definition of the Affected parties. The Trans-Caspian pipeline project shall be considered covered by the Protocol under the Article 4.1 as listed in the Annex I.

The Espoo Convention provides the Parties with the possibility to decide whether they are going to carry out separate EIAs or have a joint EIA procedure either as a whole or for some steps (Article 2.1, App. VIg). However, the draft Protocol does not specify explicitly on such provisions. Moreover, the possibility to conduct a joint EIA requires that the national EIA systems are harmonized and controlled by a steering committee (Koivurova and Polonen, 2010). In case of Nord Stream project, the officials decided that the company must undergo the national EIAs and permitting procedures of the four origin states (Koivurova and Polonen, 2010). Due to the provisions of the draft Protocol and the experience of the other similar projects, the Parties of Origin should conduct national EIAs and then it will be important to provide mechanism for an overall EIA report that would cover the assessment of the pipeline as a whole. This could be provided by the company/consortium that owns the project as it was the case in the Nord Stream (Nord Stream, 2009). The vast role in the communication and efficiency of the procedure for the Caspian states will

depend on the Secretariat, which has a wider role within the procedure of the draft Protocol, pursuant Article 13.2. It needs closer collaboration of the work between the company preparing the project documentation and Secretariat. The preparation of separate national EIA reports that will consider each sector of the pipeline and lead to possible omissions in the evaluation of the possible impacts in comparison to assessment as one structure. Koivurova and Polonen (2010) remark that such two step procedure, first national EIAs, and then the overall report on transboundary impacts, could lead to “fragmented” approach. In this respect, it is important to note that the Secretariat of the Tehran Convention, which plays important role of communication and efficient functioning of the draft Protocol, is ad interim carried out by UNEP, which was requested by COP I in 2007 till the decision on the permanent Secretariat was made (Tehran Convention, 2011). According to the Progress Report of the Tehran Convention (2010), the Parties are requested to decide on the location of the permanent Secretariat and decide whether it will be administered by an independent Secretariat or UNEP will continue its role (TC/COP3/2, 2010). It seems that the decision on the permanent Secretariat that will be located in one of the littoral states is not completely independent.

Besides that, international companies operating activities in the Caspian, in this case a transboundary pipeline can bring their experience to the procedure and stimulate the cooperation, though it does not guarantee the opposite effect. In many projects that could possible involve transboundary impact, the EIA were done for International Financial Institutions (IFI), such as Asian Development Bank, European Bank for Development and Reconstruction¹⁷, because these organizations require the conduct of a proper EIAs for the projects they finance. This was made a general practice for many international agencies, which finance projects or give granting aid to developing countries (Wood, 2003).

¹⁷ The examples can be: EIA of Atash Marine Base (2004), financed by EBRD, EIA of CAREC Transport Corridor 1 (Zhambyl Oblast Section) (2010), financed by Asian Development Bank , and many others.

Though the involvement of international agencies as stimulus for introduction and conduct of EIAs is an important step, in many developing countries there had been only partial success, mainly being considered as a political concession. Thus, Momtaz (2002) said in this regard:

“The general perception is that EIAs are conducted only because they are required by the government legislation and donor agencies, not to ensure sustainability of projects or to develop better management plans. In many cases, EIA is seen by proponents as an impediment to the implementation of development projects. It is regarded as a tool to justify projects rather than using it as a means to derive the best decision”.

However, it does not mean the joint efforts of IFIs and the governments' commitments to international agreements such as Espoo Convention, and Tehran Convention would not bring positive results. Nazari (2003) argue that the involvement of IFIs in the offshore oil development projects in the Caspian became an important stimulus for the countries to promote the Convention and its objectives, and even advised the Secretariat to strengthen the cooperation with IFIs in a formal strategic alliance.

Public Participation and transparency

One of the main objectives of the Espoo Convention, as well as the draft Protocol, is to provide public access to the information about the planned project and give opportunity to comment. However, this important part of the transboundary EIA procedure could be challenged in most of the Caspian states. As it was mentioned previously, in many cases the public participation is taken as a formality, both due to the lack of awareness of the public on the procedure of the EIA and general lack of interest, as well as caused by some inconsistencies in the application of the international agreements. Aarhus Convention Implementation Report in Kazakhstan (2011) mentions that due to the regulations on the public hearings does not require the specific number of representatives of public, it allows to conduct a purely formal hearing, which “could lead to non-objective decision making, failure to comprehensively cover

all risks, a growth in social tension, a rise in legal nihilism in all sectors of society, a growth of corruption and lack of trust in authorities that could shake the foundations of law and order” (UNECE, 2011a) Moreover, the legislation does not provide all necessary tools for the implementation of effective public participation in decision-making on the issues involving environment (UNECE, 2011a). The similar problems of practical realization of public participation pose challenges in other Caspian states (Tsutsumi and Robinson, 2008).

Koivurova and Polonen (2010) also mentioned of the difficulties of the organization of proper public participation due to the large number of countries involved, which also can contribute the issue of transparency of the communications between Parties. Though the Trans-Caspian project does not cover such large territories involvement, due to the systemic deficiencies and the general lack of public awareness, ensuring the compliance to the provisions on the public participation could pose the main challenge to the project transboundary EIA.

Alternatives

The discussions and difficulties of the decision on the construction of the Trans-Caspian pipeline were mainly caused by the choice of the location of the pipeline and the necessity of the Central Asian countries, in this case Kazakhstan, to diversify the export routes of oil and gas, bypassing Russian territory. One of the basic requirements of the Espoo Convention, which is also true for the draft Protocol, is the application of the EIA at the early stage in the decision making process. Despite that the issue of pipeline was raised much earlier than the possible date of construction, it does not mean that the environmental concerns are the reason for long negotiations and postponing of such infrastructure project involving at least five littoral states, but in reality affecting interests of many. Unfortunately, in most cases such decision making

is shaped by the political situation and geopolitical interests, where economic comes next, and the environment only the last.

Koivurova and Polonen (2010) noted that while the Espoo Convention is driven by the attempt of the Parties to find alternative that would have the least impact on the environment, the decision is determined by the alternatives within the jurisdiction of the country of origin. According to Article 4, and Appendix II(b), which specify the minimum content of the EIA documentation, the alternatives are to be considered, but specifies “where appropriate”. Birnie and Boyle (2009) argue that from the requirements of the Espoo Convention it can be concluded that it the country of origin decides on the alternatives within its jurisdiction. The draft Protocol Annex III has the same requirements for minimum documentation, and the same conclusion can be done for the Trans-Caspian case. However, as it was mentioned previously, the legal requirements are not the priority questions in decisions that touch upon geopolitical interests.

5.4.2. National EIA Procedure in Kazakhstan

The challenges of transboundary EIA in the Caspian region, particularly the case of the Trans-Caspian pipeline project, also involve the difficulties of harmonization of EIA systems in the region, as well as the general deficiencies of EIA systems in littoral states. As it was mentioned previously, the EIA system in Kazakhstan, as an example of EIA system in four out of five littoral states, is still in the process on development and despite being based on the Soviet system previously, based on State Environmental Review (SER), since 1990s have evolved into different directions.

The national procedure Kazakhstan does not require the formal screening and scoping stages in the EIA process, where all of the projects go through the process of SER and the decision on the extent of assessment is decided by the government authorities on case by case basis. The Trans-Caspian pipeline project, according to Kazakh legislation will be considered as a project that is

“recommended” for full-fledged EIA (Annex 1, paragraph 17)¹⁸ and the procedure will follow three stages: the preparation of EIA documentation by the project developer, the SER, which could also involve a stage of Public Environmental Review, and the final decision by the SER governmental authority on the project. Though general structure of the procedure seems to be clear, in practice such projects as Trans-Caspian pipeline, that involve interests of multinational oil and gas developing companies, the concerns of neighboring countries, including economic, political and economic, as well as environmental interests, that is to be assessed by the system of developing country brings various challenges. Alshuwaikhat (2005) suggested that in many developing countries of Asia, the EIA was conducted with insufficient stuff, lack of experience in EIA procedure and without enough baseline data, despite the existence of good EIA guidelines and legislation (Brifett, 1999, cited by Alshuwaikhat (2005). Moreover, Wood (2003) noted that besides the legislation and guidelines, the achievement of sustainable development, and particularly well functioning EIA systems in developing countries, requires the implementation of wider environmental controls, raising public awareness that will enable proper public participation, increasing transparency to counteract the corruption. Author also mentioned the issue of the costs of EIA system, that in many cases exceed the benefits in majority of developing countries (Wood, 2003). These are also true for the Caspian Sea region, including the problem of the EIA process financing. Thus, according to Kazakh legislation, the costs of the SER are to be covered by the project developer, and it depends on the volume of the documents to be reviewed. Besides that, Tsutsumi and Robinson (2008) noted that according to the World Bank survey, in majority of projects the main concerns of large project developers were not due to the official fees for the EIA procedure, but “the “hidden costs” which result from arbitrary regulations, dependency on arbitrary case-by-case exemptions and processing delays due to insufficient capacity of SER authorities”.

¹⁸ Annex 1 to the “Instructions on conducting environmental impact assessment of the planned economic activity when developing pre-planning, planning, initial project and project documentation”

Unfortunately, current national EIA system in Kazakhstan, as well as in other littoral states, despite some developments and update of the legislation, reflect all the characteristics and deficiencies mentioned, and Trans-Caspian pipeline project would not be an exemption, that could probably become one more indicative case of insufficiently developed national EIA system in the region. Alshuwaikhat (2005) suggest that the introduction of Strategic Environmental Assessment (SEA) as a supplementary to the EIA system could be an effective tool to assist developing countries in achievement development goals without scarifying the environment, at the earlier stages and larger scales than the project level EIAs, which would address the inclusion of environmental issues into decision making process of the plans, programs and policies (also Wood, 2003). Though, it is worth noting that none of the Caspian littoral states are signatories to the Protocol on the Strategic Environmental Assessment of the Espoo Convention.

6. THE LEGAL STATUS OF THE CASPIAN AND REGIONAL POLITICS

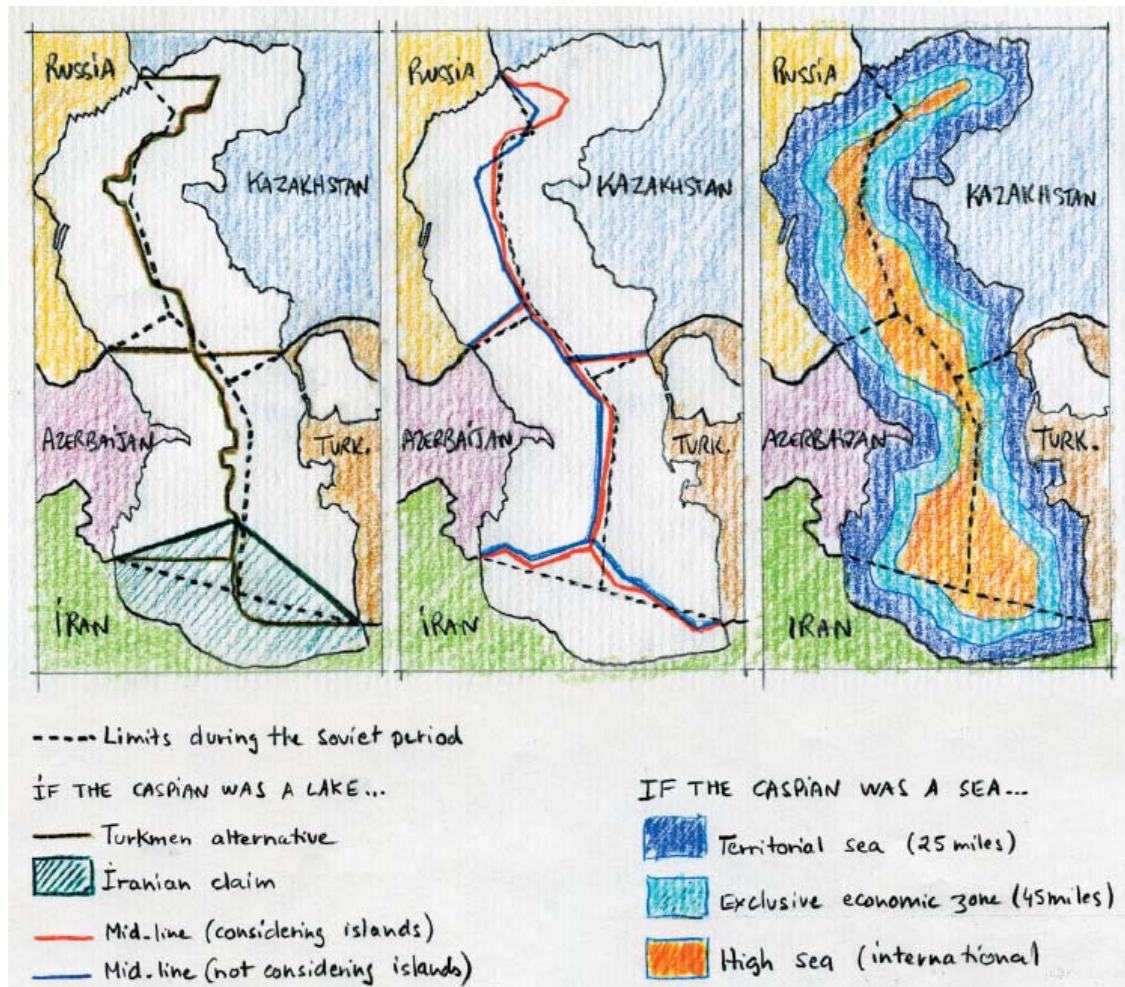
6.1 The legal status

After 1991 littoral states of the Caspian contested the legal regime based on the treaties of 1921 and 1940. The main departing point of the new era of establishment of regime in the Caspian taken with the reference to Vienna Convention on Succession of States in Respect to Treaties (1978)¹⁹, which in case of the Caspian Sea region will mean that the littoral states of Caspian are bound by the rights and obligations of the USSR. However, even with the acceptance of the treaties concluded between Iran and Soviet Union, the lack of specification on the important issues of delimitation and rights for activities other than fishing in the previous treaties, as was mentioned above, and the regional customary law, raised the question of the elaboration of new legal regime in the Caspian sea.

While the historical developments in the Caspian basin that provide some background for the consideration of the new legal regime, the applicability of any legal framework in case of the Caspian demands primarily the answer to the question of what kind of water body it is. Despite of the existence of quiet clear definitions of the sea and lake, the specific nature of Caspian basin does not allow direct applicability of any of them.

¹⁹ Vienna Convention on Succession of States in Respect to Treaties, done at Vienna on 23 August 1978. Entered into force on 6 November 1996. United Nations

Figure 6.1: Options of delimitation of the Caspian basin considered by the Caspian littoral states



Source: UNEP/GRID-Arendal, "Vital Caspian Graphics: Challenges beyond caviar", edited by Ieva Rucevska et al., 2006.

One of the main positions held by some riparian states is that Caspian a "sea" and the UN Convention on the Law of the Sea of 1982 should be applicable. Thus, according to Article 122:

"enclosed or semi-enclosed sea means a gulf, basin or sea surrounded by two or more states and connected to another sea or ocean by narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal states".

In general terms it seems that definition could be applied in the case of the Caspian. However, scholars have different views on this point and mainly deny the possibility of applicability of Articles 122 and 123 of UNCLOS due to the vagueness of interpretation. Moreover, whereas some scientists do not agree that Caspian is an enclosed sea since it does not have connection to other seas or oceans, or at least this connection is through the complex and long networks of lakes, human made canals and rivers (Dekmejian et al., 2003). Though, if the littoral states are inclined to apply the rules of the sea legislature, the provisions of the open seas delimitation would be applied. Thus, the territorial waters not exceeding 12 nautical miles will be allocated to each party²⁰. However, due to the S-shaped water body of the Caspian, the median line is the solution in this case. Moreover, as was noted by Janusz, among the littoral states of the Caspian, Russia is the only party that ratified the Convention and the provisions that could be applied for the Caspian as enclosed sea do not present a customary international law (Janusz, 2005).

Considering the difficulty of applicability of the seas regime in the Caspian case, the option of lake could make the delimitation issue more flexible, though debatable whether this option makes it easier for the littoral states to “share”. Due to the absence of specific treaties and conventions on the lakes (Dekmejian, 2003), the international customary law remains the primary source for the riparian states to decide on the regulation of the regime in the Caspian. Thus, the state practice in delimitation of lakes provides at least three methods such as thalweg (mainly used for border rivers), coastal line and median line (Janusz, 2005). Despite the specific history of Caspian basin, regarded mostly as a sea in the previous regimes, if the littoral states prefer the lake option, they will be free to choose the condominium or the combined regime with national sectors and common area.

²⁰ Vienna Convention on the Law of the Sea, 1982, Part 2, Article 3

Besides legal approach to the issue of delimitation of this water body, some scientists hold an opinion that strictly geographical basis in the scientific framework is the best way to decide “who gets what”, as far as the options resting upon existing legislature are not sufficient. Thus, E.B. Chernyavskii maintains that the division of the Caspian should be considered without Kara-Bogaz-Gol (the semi-included bay of the Caspian, that has the most saline water was closed between 1980 and 1992 (UNEP, 2007), and secondly, that in the case of Caspian only geodesic division of subsoil could be the solution, thus, as if there is no water in the basin. He thinks that this method is suitable because with changing level of water in the Caspian, the borders will remain the same (Semedov, 2009).

Despite all complicated methods and different opinions of experts, as a matter of fact the question of division of the Caspian remains to a greater extent an issue of political bargaining of the parties, no matter how it is viewed, “*as a sea, lake, or bathtub*” (Mirfendereski, 2001). This opinion is supported by the still continuing negotiations on the Caspian legal status, that until recently have already resulted in at least 25 meetings of Caspian littoral states.

6.2 Politics and the Caspian legal status

Since 1991 the lines of argumentation and factual activities of Caspian littoral states differed according to new economic interests arising with the explorations in the Caspian subsoil. Moreover, mainly for the two powers in the region, which do not possess significant resources in their supposed “shares”, the negotiations were effected by the geopolitical considerations and the concerns of security of each of the party.

6.2.1 Russia

For long period of time Russia was insisting on the condominium, thus the joint use of the Caspian, based on the Soviet-Iranian treaties of 1921 and 1940, as far as she was not much interested in previous state practice of Astara-

Hassanqoli line (Figure 6.2), as well as the division according to Soviet internal divisions (Mirfendereski, 2001).



Figure 6.2: The Astarahassanqoli line, that was considered as Soviet-Iranian boundary in the Caspian, based on Soviet-Iranian agreements in 1954 and 1957 (Ahmadov, 2003)

The main interest of Russia in the region at that period was to keep the security situation more or less under the control and “not to allow any kind of unilateral activities of appropriation of space, as well as the resources without consent of the others” (Mamedov, 2001). The similar position was held by Iranian government, as well as Turkmenistan. Despite the formal declaration in October 1994 of Russian Federation to UN mentioning that “...all utilization of the Caspian Sea, in particular the development of the mineral resources...must be subject of concerted action on the part of all States bordering the Caspian” (Mirfendereski, 2001), which is according to Mirfendereski was the self appointment of Russia as “first among equals”, Russian shift from Russian-Iranian lake theory soon occurred. Thus, according to Granmayeh, in 1995 Russian inclination towards the division of sea was based mainly on the reasons of economic participation in the so-called “Contract of the Century”

(1994), which was the first among the Caspian states production sharing agreement signed with Western led oil consortium (Wheler, Accessed 2010), and the possibility of the benefit implied by the pipelines going through the Russian territory (Granmayeh. 2004). Thus, by 22 October 1996, Russia left the opposing camp of Iran and to some extent Turkmenistan, letting the possibility of allocation of national coastline of 35-40 miles wide, whereas leaving parts outside national sectors in common use (Granmayeh. 2004). This approach was further elaborated with northern Caspian neighbors, when in July 1998 Russia signed bilateral *Agreement on the Division of the Northern Part of the Caspian Seabed* with Kazakhstan, and also trilateral Agreement among the Russian federation, the Republic of Azerbaijan and the Republic of Kazakhstan on the Border Line (Almaty, May 14, 2003)(Ondrejcek, 2008; Semedov, 2009). Besides the reasons mentioned before, according to Dmitri Koptev, the change of Russian stance was caused by the discovery of “rather impressive” oil deposits in northern Caspian coast (Mirfendereski, 2001). However, being aware of the insignificance of the oil and gas deposits in the Russian Caspian part in comparison to huge strategic oil and gas fields in other parts of the Russian territory, such explanation does not seem feasible.

Despite the agreement on the part of northern Caspian states, the actions of each of them separately sometimes showed inconsistency. As such, on September 15 1998, Russian deputy foreign minister Pastukhov stated that the preparation of a convention to divide the seabed into equal parts of 20 percent each was going on (Mirfendereski, 2001). Moreover, on March 12 2001, Russia and Iran announced that till the development of the new legal regime on the Caspian, officially do not accept any kind of borders on the sea (Semedov, 2009). Both Kazakhstan and Azerbaijan considered this announcements contradicting to previously signed agreements, particularly the agreements clearly stating the division of the Caspian into sectors based on the principle of equidistant points (the median line) (Granmayeh, 2004).

According to Mirfendereski, Russian policy in the legal delimitation issue plays in favor of her, thus in the southern Caspian the disagreements between Azerbaijan, Turkmenistan and Iran over the disputed oil fields makes Iran appear as the “villain”, which is even more effective with the isolation from US and Western Europe (Mirfendereski, 2001). Though Russian position also incorporated a way of balancing to bring Iran as an ally in the issue of opposing the attempts of construction of hydrocarbon transportation through the Caspian Sea by pipelines and counterbalance the possible confrontation with the NATO. Thus, the delimitation of the Caspian into the sectors will ease the realization of the plans to construct the trans-Caspian pipelines on the seabed from Turkmenistan and Kazakhstan to Europe, bypassing Russia. Besides that, after the division of the Caspian, littoral states could agree to the military presence in their national sectors of other non-Caspian states, such as NATO and USA, which Russia is trying to prevent. Moscow insists that only the seabed of the Caspian should be divided into sectors while the water will be in common use, so that it would allow warships of Russia move freely in the sea. In addition, Russia asserts that the Convention on Caspian Sea delimitation should contain a ban on the deployment of military forces in the Caspian by non-regional countries. This requirement was explained by the activity of the United States, which allotted Azerbaijan and Kazakhstan 130 million US dollars for the modernization of the fleet under the “Caspian Guard” program (Gabuyev, 2009). For these reasons Baku and Astana rejected Russian idea of a joint naval group named “Casfor”. In Moscow this move was perceived as a trial step for the emergence of NATO military bases in the Caspian Sea (Sysoyev, 2007).

6.2.2 Kazakhstan

Among the Caspian littoral states, Kazakhstan’s standpoint seems to be more “pragmatic”, in line with their foreign policy. Kazakhstan’s “sea theory”, thus the main stance in the document entitled “Draft on the Legal Status of the Caspian Sea”, initiated by Kazakhstan in August 1994, and treated the Caspian as a sea

regulated by the rules of the high seas legislature (Mirfendereski, 2001). Interests of Kazakhstan are mainly explained by the expected offshore oil and gas reserves in the northern part of the Caspian.

According to the Kazakhstan's position proceeding from the concept of an enclosed sea, and the main principles supported by Kazakhstan where "the Caspian seabed and subsoil assets should be delimited among the littoral states" (Gizzatov, 2004), where according to Vyacheslav Gizzatov such "decision opens a way for each littoral state to attract foreign direct investment". Thus it can be observed from the starting words of the review of the Oil and Caspian Offshore Development Strategy, where it is said "Firstly, Kazakhstan secured stable legal environment for investors in its Caspian Sector" (KazEmbassy UK, Accessed 03.05.2010). And in case of Kazakhstan, which became true in July of 1998 when Kazakhstan and Russia "agreed to divide only the seabed along median lines between the two countries, leaving the waters to be shared under joint ownership" (Jafar, 2004). The further developments in the negotiations and the signing of the bilateral agreements between Azerbaijan, Turkmenistan, Kazakhstan and Russia, where the sides decided to divide the sea along the median line, raised the hopes that the solution is out there, but there again were the disagreements over where to draw that line. And of course nothing was going in the way Iran had planned, thus, its "preference is for all five littoral states to adopt a collective approach in developing the mineral resources beneath the Caspian" (Bahgat, 2005), where Iran "became the lone voice in the debate over the legal status of the basin" (Bahgat, 2005).

The main points of "balancing" between Kazakhstan and Russia is due to the perspectives of start of oil and gas extraction on the Kashagan field, which supposedly could be exported to Europe through the projected trans-Caspian pipeline, that as was mentioned above is one of the main aspects of opposition to the resolution of the Caspian problem on the side of Russia. Moreover,

despite the fact that the most of the issues of delimitation between two states are already resolved, the details on division of the Khvalinskoe oilfield are still under negotiations and Lukoil was not able to start its exploitation (Korytina, 2010).

6.2.3 Azerbaijan

From the beginning of negotiations Azerbaijan was interested in division of the Caspian into the national sectors, so that the sector will be under their own jurisdiction and the joint document of the riparian states should contain the untouchable sovereign rights of coastal states in their parts. Due to the role of Baku during Soviet times as the main center of oil industry and the level of development of oil industry there, Azerbaijan claimed the superior role in the Caspian, and one of the first started with the ambitious agenda already in 1992 (“Contract of the Century”) (Granmayeh, 2004). Azeri government even backed their position on the Caspian legal status in the constitution, where in Chapter 2, Article 11 it is mentioned that *“Internal waters of the Azerbaijan Republic, sector of the Caspian Sea (lake) belonging to the Azerbaijan Republic, air space over the Azerbaijan Republic are integral parts of the territory of the Azerbaijan Republic”*²¹, which legally represents the right of Azerbaijan to “reject any part of the Soviet-Iranian Friendship and CN treaties that ran contrary to its interest as a manner of its constitution or fundamental law” (Mirfendereski, 2001).

Though Azeri side had reached agreement on the principle of delimitation based on median line with Russia in 1998, and later signed trilateral agreement with Kazakhstan as well, which resolved the issue on the northern part of the sea, disputed oil fields in the middle of the Caspian on the southern part did not allow to come to an multilateral agreement. One instance of disagreement in 1999 over the ownership of Inam field, which Azerbaijan was planning to develop, was objected by the Iranian authorities on the grounds that it lies in the territory of Iranian offshore sector (Mirfendereski, 2001). In earlier periods Azeri

²¹ Constitution of Azerbaijan Republic, November 12, 1995

authorities tried to bring Iran into the agreement by offering a share in international oil consortium (transfer of quarter of Azerbaijan's shares), however, the negative reaction of Russia claiming that Azerbaijan was trying to "buy" support of Iran, and the opposition of Western partners in the consortium ended this attempt (Granmayeh, 2004).

The interests of Azerbaijan in the Caspian Sea oil and gas resources, thereby the concern on the "just" division of the sea, is mainly based on the economic basis, as far as the onshore resources were depleted already in 19th century, the ones in the Caspian represent the almost the only source of the GDP of the country. So it is quiet logical that the most serious confrontation on the Caspian Sea occurred between Azerbaijan and Iran over the offshore field called "Alborz" (Iranian name) or "Alov-Araz-Sharq" (Azeri name), which is according to some reports, is the second largest field in Azeri sector (Granmayeh, 2004). This event raised concerns of not only the littoral states but also all interested parties that without resolution of the legal status of the Caspian, the escalation of disputes to the military confrontation was one of the possible scenarios and once again played in favor of Russia, downplaying the role of Iran.

One of the issue between Azerbaijan and Turkmenistan that still represents one of the main points on the negotiation agenda of Caspian littoral states for the preparation of the Convention are the disputed oilfields of most widely known as Azeri, Chirag and Kyapaz (Azeri names for Khazar, Osman and Serdar fields). Azerbaijan already started development of Azeri and Chirag in 1994, which was contested by Turkmen authorities as violation of their rights. The geographical location of abovementioned oil fields would presumably make them fall on the Turkmen sector of the Caspian, if the sea was to be divided according to equidistant median line would (Mirfendereski, 2001). This complicates the position of Azerbaijan in the situation of the recent announcement of the Turkmen side to bring the case to the court (Abbasov, 2009). Moreover, some analysts argue that this dispute can be used by Russia to block the attempts to

pipeline projects bypassing Russia by supporting Azeri part in the resolution of the Nagorno-Karabakh conflict (Abbasov, 2009). Though, how far can the Azeri part play a role on the blocking of the US-supported energy projects, even with the support of Russia is debatable. Even with the rising “self-confidence” of Russian power in the regional affairs where analysts mainly refer to the August Russia-Georgia conflict, while, it can be assumed that Russia would still try to postpone the negotiations over the Caspian Convention, she probably will not openly support Azeri authorities in this dispute, as far as there are alternative pipeline projects that for many seem to be feasible even without the project of trans-Caspian ones.

6.2.4 Turkmenistan

Turkmenistan was one of the first countries in the Caspian region to resolve to the national legislature to assert its position of 12 nautical mile territorial sea in 1992, which was the departure from the Soviet-Iranian framework at that time (Mirfendereski, 2001). However later, again by the means of the national legislation, Turkmenistan took a new view on the delimitation issue, practically meant the application of the high seas model to the Caspian (Mirfendereski, 2001). The position of Turkmenistan changed several times during long period of continuous negotiations, where for the most of the time Turkmenistan supported Iranian side. Moreover, Turkmenistan still needs to resolve the ownership issue of disputed oilfield with Azerbaijan, mentioned above, and only after that the definite position on the delimitation of the Caspian can be formulated. Also, in contrast to Azerbaijan and Kazakhstan, Turkmenistan's main gas fields are onshore, so that it does not make much of a problem to hasten the solution of this issue, and to use the tactics of procrastination.

6.2.5 Iran

Until recently the Caspian state that was the main country to oppose the new legal regime types in the Caspian Sea was the Islamic Republic of Iran. There

are different explanations of the Iranian stance on delimitation of the Caspian, which are complicated also by general position of Iran in the international politics and complicated relations with the USA, which are not covered in this paper.

According to Mirfendereski, in early 90ies when Russia was insisting on the joint equal undivided use of the Caspian Sea, Iran used the opportunity to ignore the historically known border line of Astara-Hassanqoli (Mirfendereski, 2001) and based on the Soviet-Iranian agreements of 1921 and 1940, for the long period supported the idea of Soviet-Iranian regime type on the Caspian. With the bilateral and trilateral agreements being signed between Russia, Azerbaijan and Kazakhstan, was losing its partner to keep up on the pressure for the common use of the “lake”, and the only option left was insisting on the “unacceptability” of these agreements and claim that all offshore oil developments should be terminated until the decision by all parties will be achieved (Askari, 2006). This unacceptability of the proposed delimitation methods, mainly the one based on the “negotiable” (modified) median line, first of all created the problem for the Iranian part because of the least share that it would get in case of this regime is accepted, thus 13,6 percent, while other parties, especially Kazakhstan, Russia and Azerbaijan will get the largest shares of the “pie” (28,4%, 19% and 21%) (Askari and Taghavi, 2006). In this respect, Iran’s only hope is the position of Turkmenistan that, according to Askari and Taghavi (2006), could gain 2% more with the equal division of the sea, proposed by Iran. Moreover, the case of Azerbaijan is not acceptable because of existing disputed oilfields in the Caspian and as it was noted by Taheri (2007), there are at least three more reasons of clashes between Azerbaijan and Iran, which though go much deeper than only the status of the Caspian. He mentioned, referring to sources in Tehran, that the issue of the talk on the building of the antimissile shield on the territory of Azerbaijan, that would be directed to Iran “as a key threat to both Europe and Russia”, and Azeri claim that the Talesh, region of Azerbaijan on the border of Iran, was used a centre

for terrorists in the region. Moreover, he noted that besides these reasons the main issue was Iranian support for Armenia during Nagorno-Karabakh conflict (Taheri, 2007). On this background, the rapprochement on the issue of decision over the legal status of the Caspian seems to be quite doubtful. In this respect, a compromise between Azerbaijan and Turkmenistan seems a much more possible scenario, which definitely leaves Iran the only party opposing to the legal regime mainly supported by Russia.

While the rhetoric of Iranian authorities on the 20% being the minimum what is to be asked, where the “deserved” share of the “Soviet-Iranian Sea” should have been 50% (Mirfendereski, 2001), remained in the background of 18 years of negotiations, Iran already in 1998 abandoned the idea of joint exploitation and signed agreement with the Royal Dutch (Shell) and Lasmo on the explorations of oil and gas (Mirfendereski, 2001). Moreover, despite the difficult relations background in the region, Iran still remains as the potential shortest and cheapest way of exporting oil from the Caspian Sea, at least to the opinion of Iran and some oil companies (Askari, 2006). However, the political considerations, such as the US sanctions (IEA/OECD, 2008), the ongoing issues of the Iranian nuclear program, does not allow at the recent point realistically considering the Iranian route as an alternative to Russian or the US-supported Baku-Ceyhan and Trans-Caspian pipelines. Nevertheless, Iran holds the Russian position on attempts to block the construction of the pipeline on the seabed of the Caspian, justifying their position mainly on the environmental considerations of pollution dangers to the unique nature of the Caspian Sea, and at the same time, opposing to the common use of Caspian waters proposal by Russia, due to the security factor, which according to Namazi and Farzin (2004), is the top priority consideration on the Iranian agenda in the Caspian Sea, as far as Iran never forgets “the threat of the Great Russian Bear to its North” (Namazi and Farzin, 2004).

7. DISCUSSION

7.1 General Aspects

The Caspian resources have come into the view of the western oil companies even before disintegration of the USSR. Then the new data on hydrocarbon resources led to search of ways of their delivery to a foreign market. Big role in occurrence of new pipeline projects was played by the growing prices for hydrocarbon resources, and also expectations of the newly independent Caspian countries expected for revenues from transit through their territories. The history of modern pipeline projects is a struggle of these independent Caspian states, particularly Azerbaijan, Kazakhstan and Turkmenistan, for easing of Russian transport and communication dominance. Overcoming the dependence and diversification of pipeline routes became a key problem of Caspian states which considered oil and gas through a prism of the statement of independence and strengthening of relations with the western countries.

Western companies had actively participated in untwisting of new pipeline projects due to their interests in the hydrocarbon resources in the region and as such, were interested in replacement of Russia from the Caspian region. Many analysts and experts view the region not only as a sphere of interest of western companies, but as a center of geopolitical competition between United States, Europe and other Western countries to counteract such powers as Russia, China, named as the “New Great Game”, referring to the old age geopolitical rivalry of Russian Empire and Britain in Central Asia (Kleveman, 2004; O’Lear, 2005; O’Hara, 2005; Akiner, 2004; Legvold, 2003). These are one of the most significant factors that shape the developments in the Caspian region in general, and the challenges of the proposed Trans-Caspian pipeline. However, as it was shown in the previous chapters, the possibility and the abilities of the Caspian littoral states to improve or at least not to worsen the environmental situation of the Caspian, no matter whether they will decide to share it as a sea

or a lake, are complicated also by the difficulties of economies of transition and the lack of legislative consistencies due to the Soviet system based environmental protection legislature, incorporating the newly introduced elements of European environmental provisions and particularly EIA Directive.

However, the issues of the geopolitics as well as the regional confrontation among littoral Caspian states on the legal status of the Caspian basin is one dimension of the problem. Littoral states confront inability to properly implement the legislative framework that could stimulate the achievement of sustainable development goals in more general perspective. Particularly in this case, on the level of project development, improvements in the structure of legislative framework through the introduction of more harmonious EIA requirements in littoral states and enhancement of cooperation by better coordination on the issues of environmental protection of the Caspian basin could be vital. These changes can be realised through the mechanisms provided by international agreements such as the Espoo Convention, and on the regional level, the Tehran Convention and its Protocols.

The analysis of the legislative framework for the EIA on the national level (Kazakhstan), and the overview of the Espoo Convention that created the basis for the draft Protocol on transboundary EIA to the Tehran Convention, in the perspective of the possibility of the construction of the seabed pipeline, brought to some important findings that could present challenge to this project, and probably other similar initiatives in the region.

7.2 Regional dimension of the EIA legislation

The national legislature on EIA procedure in Kazakhstan, which is also considered true for other post-Soviet Caspian countries, is based on the two-tier structure, based on the State Environmental Review is a mandatory step for every project and it is the decision of the authority to decide on the depth of the EIA to be conducted. As such, the procedure does not involve formal screening

and scoping. The review by the authorities evaluates the compliance of the project documentation according to standards. The existing structure of EIA, together with the strict environmental standards that can not be achieved at the current level of development in Kazakhstan, and other factors such as the lack of experience in the EIA procedure, the issues of transparency of the procedure, as well as corruption, could pose significant risk that the project considered will not be based on the objective evaluation of the likely environmental impacts. Moreover, due to the political importance and controversial nature of the pipeline project that crosses the borders and involves the transportation of energy resources from developing countries to the developed, the decision on the environmental impacts it is likely to cause, could be downgraded in expense of strategic interests of the country.

Among the most crucial issues with the respect to the Trans-Caspian pipeline project, is the existence of agreements and structures to provide necessary mechanism for the transboundary impact assessment that would be binding for all Caspian littoral states. Unfortunately, among five littoral states only two (Azerbaijan and Kazakhstan) are parties to the Espoo Convention and Russia have not yet ratified, while Iran is not member of UNECE. Though the Tehran Convention provides an opportunity for such projects as Trans-Caspian pipeline, the Protocol on transboundary EIA have not been yet signed, which is expected to be done during this year. Despite the clear goals and structure of the draft Protocol, in many aspects the practical implementation will be highly dependent on the Secretariat of the Convention due to the lack of experience in transboundary EIA in the Caspian states, and also based on the previous experience of the transboundary EIAs in the region, insufficient commitment to participate in the procedure involving timely and well informed cooperation of the parties.

One of the critical aspects of the draft Protocol is the provisions that refer to the issue of the legal status of the Caspian and delimitation. It could become one of

the main obstacles for the proper functioning of the procedure, and contrary to the goals of the mechanism provided, become the tool of the political manipulation. The expected signing of the Protocol precedes the resolution of the issue on the legal status of the Caspian basin and it is reflected in the provisions of the draft Protocol. The dependence of the draft Protocol on the decision concerning the postponed division of the seabed and probably the surface waters into national sectors could impede the definition of responsibilities of each state. Thus, without common decision on defined border lines between national sectors, it would be difficult to determine whether the transboundary environmental impact is in fact passes the borders, without causing disagreements or even confrontation between Caspian states. This could even more important due to already existing disagreements over the disputed oilfields and the political interests of littoral, as well as other states in the region. Moreover, it would be advisable that due to the specific nature of the oil and gas projects in the Caspian and the physical characteristics of the enclosed sea, any project with even less likely transboundary impacts should be assessed.

7.3 Strategic issues dimension in the EIA implementation

Another important aspect of the projects such as the Trans-Caspian pipeline project is the decision making process. Similarly to the Nord Stream project, the decision on the construction of the pipeline is generally taken without the consideration of the environmental issues. The main reason for consideration of the seabed pipeline by the Caspian states, particularly Turkmenistan and Kazakhstan, was based on the attempts to find alternative routes of export that bypasses Russian territories and decreases the dependency on Russian oil and gas pipelines. As such, strategic factors that do not include the environmental possible impacts were the main driving forces behind the decision making, and the EIA is generally done much later. The issue of the “strategic element” incorporation into the projects was discussed in a note by the Secretariat of the

Espoo Convention that specified how geopolitical issues, as well as the economic interests could influence the decision making process by “*diminishing the alternatives considered in the EIA*”. (ECE, 2009) Though, the note leaves it to the parties to decide how to address this issue, it provides opportunity a solution within the EIA framework, saying that the Convention “*does not stop Parties from assessing strategic issues within EIA*” (ECE, 2009). However, it is a contradictory aspect of large projects involving multiple parties, and as one of the key delegates of the Nord Stream project had mentioned “[...] *if one raises issues related to the impacts of the proposed activities on the geopolitics of the region and its energy and climate policies, this will be close to opening Pandora’s box*” (Koivurova and Polonen, 2010). The only manageable way of dealing with such projects was seen in limiting the EIA process to the environmental issues. However, it still remains questionable whether the EIA results would be the decisive factor in the final process, or only a tool to justify already existing position of the interested parties.

This critical issue goes beyond the level of project and the solution within the framework of the Espoo Convention could be found in the Protocol on SEA. However, experts doubt the applicability of this Project to the strategic projects and the Secretariat of Espoo Convention reflected upon this mentioning that “*a complex activity might not be planned on the basis of a PPP [plans, programs or policies], or if it is, the PPP might not be subject to SEA. Complex projects might arise from an informal or non-statutory process, i.e. not following an established planning scheme of PPP*” (ECE, 2009). The decisions on the possible construction of the Trans-Caspian pipeline were done without any SEA involvement, similarly to many other large oil and gas related projects in the region (WWF, 2005). Secretariat (2009) noted that the strategic dimension could be considered “*somewhere between an EIA and SEA, or to combined or parallel EIA and SEA procedures*”, though in such projects the timing is a crucial element, and when political decision between interested parties already

made, and the EIA procedure initiated, it is debatable whether in practice countries would conduct SEA and to what extent it will effect the project itself.

The note by Secretariat (2009) also highlighted the difficulties of the transboundary EIA due to the participation of multiple countries and the situations when not all parties concerned are signatories to the Espoo Convention. This is exactly what happens in the Trans-Caspian project. Thus, the non-Party to Convention is not bound by the provisions, as well as the Party to the Convention is not obliged to inform the non-Parties about the planned project. Similar issue was resolved in Nord Stream case with Russian cooperation, accepting to follow the provisions of the Espoo Convention within the limits of its national legislation (Nord Stream, 2009). It is possible that Russia could bring its experience for the solution in case of the Trans-Caspian pipeline, which would be followed by other non-Parties in the Caspian region. However, due to the reasons discussed in previous chapters, it is obvious that Russia, as well as Iran, do not have any interest and incentive to cooperate. The only possibility of their commitment would be a legally binding Protocol on EIA within the framework of Tehran Convention, which is not signed yet as well.

7.4 Public participation

Ensuring equal public participation of all parties concerned in the transboundary EIA process is one of the main objectives of Espoo Convention. Similar goals are set by the draft Protocol, which to the large extent based on the Espoo provisions. As it was noted by the Secretariat of the Espoo Convention (2009), the procedure confronts difficulties in case of large transboundary projects, such as oil and gas pipelines, due to the numerous number of documentation and translations that need to be prepared and translated when the parties decide to conduct separate national EIA reports. The Trans-Caspian project would involve at least five parties, though not in the framework of the Espoo Convention. The draft Protocol does not specifically provide possibility to conduct a joint EIA, meaning that all national EIAs will be prepared and

translated into national languages of the concerned parties and English or Russian. While the translation in this case probably would not pose significant problem for the post-Soviet Caspian states, where in most cases local population have sufficient language skills in Russian, it will require translations in English and also Persian. However, the main issue in this region not so much in the number of languages, but in the structural deficiencies.

As was mentioned in previous chapters, the difficulties of the public participation on the national level due to the lack of knowledge and experience in organization of public consultations in the Caspian littoral states, as well as the deficiencies of the legislature that lead to formality in the conduct of the consultations in the region, could impede the quality and the scope of the transboundary EIAs.

This problem is even more severe in the case of projects involving strategic interests of the parties where the decision making did not include possibility of public participation, and was not subject to SEA (ECE, 2009). The alternatives to the seabed pipeline such as the tanker transportation of oil and gas, and the possible onshore routes, including already existing pipeline systems, were considered through the prism of strategic interests of each government of the Caspian Sea region.

7.5 Legal status of the Caspian basin as main challenge to EIA in the region

A number of studies that describe the issue of the unresolved status of the Caspian basin reflect upon the argumentation behind the position taken on this issue by each littoral state. Due to the unique features of this water body, and the history of the region, many of the reasons are based mainly on the different, mostly contradictory political opinions, where the factual knowledge is just taken in accordance with the position chosen. This has a direct effect on every initiative and agreement that sets objective goals, based on the experience of

the developed countries, in this case the EIA legislature and well established procedures, but due to the problem of the legal status, leading to political, and in some cases even to possible military confrontations, the effectiveness of these initiatives could be much lower than expected.

As was previously indicated, the issue of legal status was raised since the early 90s after the dissolution of the Soviet Union, and until recently no common position on the delimitation of the Caspian was achieved. Some level of agreement between Northern Caspian states was achieved, but little of success in the Southern part does not allow the fully fledged cooperation on the issues of environment, despite several administrative and regional umbrella agreements that were established exactly for these goals. The Tehran Convention was established with the goal to ensure “protection, prevention, and restoration of stable and rational use of biological resources of the Caspian Sea” (Article 2), though the practical actions of the littoral states in many instances reflect the other reality. Russia uses the Convention to base its argumentation on the environmental risks of the seabed pipeline by delaying its possible construction, while at the same time insisting on the need for consensual decision from all littoral states on any pipeline project. It is worth mentioning that nothing in the existing agreements openly regulates the relations between Caspian states that restrict their activities concerning the construction of pipelines. Moreover, Russian experts mention about the ecological risks set by any seabed pipeline in the Caspian, and highlight that only the alternatives possible are the ones that go through the territories of Russia, and possibly Iran. But it is also important to consider already existing transportation through the waters of the Caspian by the tankers, which could be more environmentally risky and in this case the pipeline presents a safer technology of oil and gas transportation. As such, the alternative of liquefied natural gas (LNG) transportation is cost-competitive only if the distance is over 4 800 km when compared to the pipeline transportation, which makes the LNG projects very expensive (UNDP/World Bank, 2003).

Recently Turkmenistan has been making official statements on the construction of the Trans-Caspian gas pipeline, supported by the European Commission through the ongoing negotiations and stating that the construction of the trans-Caspian pipeline is “the most attractive” way to deliver the gas by means of Nabucco to Europe (Cutler, 2011; Fitzpatrick, 2011). Moreover, Turkmen authorities insist that the construction of the pipeline does not require the resolution on the issue of the legal status, and only the consent of the countries involved in the construction is needed (Zhavoronkova, 2011). These statements support the findings that the strategic decisions on the pipeline are made without considerations of the environmental issues and even more, the absence of the agreement between states on the legal status does not hinder particular states from entering into the projects that could infringe the rights of other littoral states.

7.6 Research limitations and further research

The Trans-Caspian pipeline project is an interesting case study that combines in it several divergent issues starting with the unique Caspian Sea features, the geopolitical aspects of so called “New Great Game”, the development issues of legislative systems in a transition economy and the environmental risks of the oil and gas transportation. However, the focus on a specific project limits the possibility to make generalizations of the results and due to the regional dimension of the project, the results could be of lesser extent applicable for other similar projects in other parts of the world.

Due to the ongoing process of negotiations on both the possibility on the construction of the pipeline and the unresolved legal status of the Caspian Sea, coupled with the frequent changes in the legislature of the post-Soviet Caspian states, it presented challenge to find reliable data and many aspects of the issue are much dependent of the statements and political positions of the authorities of the relevant countries in the region. However, it is worth

mentioning that many already existing projects and many strategically important decisions are taken in these conditions, which is a continuous process and requires the evaluation and analysis of the past experience to identify the possible challenges in the future.

The study was limited to the evaluation of the national EIA procedure in one Caspian state, which could be an indicative example of other three post-Soviet Caspian states, though the changes since the early 90s in each of them increased the differences in the legal framework. There are very few comparative studies on the EIA systems in these region and mainly the reports made by support of UNECE and other international organizations present the source of information in this respect.

The projects that impact the regions by crossing the borders involve diverse aspects to be considered in analysis. This research was limited only few aspects and further studies could involve economic dimensions and technological differences of similar projects, which are the basic features making large differences in decision making process. These aspects were also critical in the case of trans-Caspian pipeline and as a part of larger Nabucco project the financial issues could substantially alter the project itself, as well as the policies of the countries. And finally, more research in the application of the SEA in transition countries, especially oil and gas exporting countries could be valuable to consider not only the project level EIAs, but to see the effectiveness at earlier stages with the role of governmental authorities.

CONCLUSION

The history of oil and gas pipelines that cross the borders of several countries have shown many examples that an economic interest can be turned into the story of *“vulnerability to disruption and of generating conflict”* (UNDP/World Bank, 2003). In many cases, the conflicts arise due to the political interests of the parties, which also include the incompatibility of legal and regulatory regimes among them (UNDP/World Bank, 2003). Though the situation with the proposed Trans-Caspian pipeline project is not considered to escalate to the level of an open confrontation, it has faced several challenges in the region.

The Trans-Caspian pipeline is an example of transboundary projects that despite being just a part of larger project since early 90s have been discussed extensively among international experts in the field of international politics and economics, especially with increased interest in so called “pipeline politics”. Despite that the project itself is not to be a complex technologically, its significance is raised by the unique features of the Caspian Sea and the geopolitical rivalry over the extraction oil and gas resources in the region and the transportation routes to international markets. Due to the landlocked location of Kazakhstan and Turkmenistan, which are both the oil and gas exporting countries in post-Soviet Central Asia, bordering the Caspian Sea, one of the major issues that these countries had to face since gaining independence, is finding the ways to export oil and gas. The existing infrastructure of pipelines is based on the Soviet network, the routes of which mainly were directed from territories of Central Asian countries to Russia. The diversification of the pipeline routes became one of the important strategic goals in these countries, and was also supported by the geopolitical interests of powers outside the Caspian region that intended to contain influence of Russia and Iran.

However, the geopolitics in the region is not the only challenge of the proposed pipeline in the Caspian. Besides general challenges of the cross-border pipelines, such as the involvement of multiple interested parties, and the non existing overarching jurisdiction that could regulate the activities (UNDP/World Bank, 2003), the situation in the region is complicated by the unresolved legal status of the Caspian basin. Moreover, as it was discussed in this work, the legislative framework on the EIA in the region could also pose another challenge for the projects like Trans-Caspian pipeline.

Both development of the national legislation on EIA in the region, particularly in Kazakhstan, and the ongoing process of formation of framework for transboundary EIA in the Caspian Sea basin, indicate that current state is not capable to provide efficient evaluation of the possible transboundary environmental impacts. The existing EIA and State Environmental Review system, which is based on unrealistic environmental standards that in many cases does not stimulate the practical reduction of pollution levels and sustainable development and the criteria for evaluation are defined by case by case studies, coupled with lack of skills in economic case for environmental sustainability of authorities conducting the State Environmental Review whose knowledge is mostly based on technical aspects (OECD, 2009), significantly diminishes the efficiency of the achievement of the goals intended to protect and minimize possible environmental impacts of economic activities. Besides that, the effectiveness of public participation in the decision making process is very low, the reasons of which are found in national legislature gaps, lack of experience, as well as in the lack of knowledge on the side of public on the access and possibilities to be involved in the EIA processes.

Another important aspect that is directly affects the Trans-Caspian project is the transboundary EIA procedure in the Caspian region, or probably more correctly still non-existing transboundary EIA procedure. Among Caspian littoral states only Kazakhstan and Azerbaijan are signatories to the Espoo Convention and

Russia had not yet ratified it. However, under the framework of the umbrella regional organization Caspian Environmental Program, all of littoral states are parties to the Tehran Convention, the objective of which is to protect “*the Caspian environment from all sources of pollution*” (Article 2). One of the four priority protocols to the Tehran Convention, which is still negotiated by the parties and planned to be signed later this year, is covering the procedure of transboundary EIA in the Caspian Sea region and to the large extent is based on the provisions of Espoo Convention. While it is a good opportunity for the Caspian states to implement the provisions of the well established procedure based on experience of developed countries, besides some deficiencies of the Espoo system itself that is brought to the Caspian emerging procedure, it is complicated by the regional issues specific to the Caspian, and the low efficiency of EIA and generally environmental policies in the region.

From the analysis of the draft Protocol, including the deficiencies of the national EIA processes in the region, the critical aspects of the transboundary EIA could not be sufficiently met with the existing legislature and the lack of willingness of Caspian littoral states to cooperate in environmental issues in practical sense. The draft Protocol was a difficult process to agree on a common position by itself and due to the issues of unresolved legal status and transition period in development of environmental legislature in the region, the transboundary EIA agreement involve provisions that reflect these issues and limit the efficiency that could be gained. As such, it is difficult to define Affected parties and whether the impact should be considered transboundary and impact more than one party. Moreover, due to the structure of Convention and the role of Secretariat in the procedure, which is mainly caused by lack of experience of the countries in the conduct of transboundary EIAs, much will depend the efficiency of the Secretariat to stimulate the parties adhere to their responsibilities. As a part of that, public participation had shown one of the basic issues in the region and the quality so far had been very low. This could

pose even more challenge with the complexity of ensuring equal participation of public in Parties of Origin and Affected countries.

Another challenge for the Trans-Caspian project is the complexity peculiar to cross-border infrastructure projects in general practice of the transboundary EIAs, which is mainly due to the involvement of many countries in the process and the strategic dimension of such initiatives. These issues were specifically addressed by the Secretariat of the Espoo Convention, based on the experience of such large projects as Nord Stream seabed gas pipeline in the Baltic Sea. Decision making process of Trans-Caspian project is also a multidimensional issue where the environmental issues are not considered as first priority and in this case were mainly used as a tool of political interest.

Finally, despite the challenges that were discussed previously, the possible environmental impacts of Trans-Caspian project has still a chance to be addressed in line with the goals of sustainable development, though much depend on the willingness and the ability of the Caspian states to adhere to the common objective of protecting the Caspian.

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