

Environmental Protection of Caspian Sea by Establishing of Joint Development Zone and Its Effects on Regional and International Security

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Abstract

The present study has analyzed the relationship between geopolitical, geoeconomical, geostrategical and environmental issues in Caspian Region and its effects on the regional and international security by the use of descriptive-theoretical method. Caspian Sea has unique environmental features. Protecting the Caspian Sea is of a vital importance to its coastal states in terms of economic, social, environmental, and national security. It can be said that Caspian Sea is a *Sui Generis* and this uniqueness requires specific solutions and approaches. Regional and international practices indicate the need for cooperation and joint exploitation of natural resources in a fair way and despite all the restrictions, it is necessary to adopt temporary measures on joint development and utilization of such resources. This study shows that such similar international experiences, using a joint development model is one way to achieve economic, social, political and environmental goals of Caspian Littoral States. It seems that “Joint Authority” model is best suited to the Caspian Sea conditions. The Joint Authority can facilitate sustainable development in the region and promote environmental protection, regional and international peace and security.

Keywords: joint development, Caspian Sea, environmental protection, sustainable development, environmental security

1. Introduction

Caspian Sea is the largest inland water basin in the earth (Zverev&Kostikova, 2014) and issues such as marine resources, oil and gas resources, cargo and passenger transportation and environmental pollution have increased its importance and make it necessary to develop regional cooperation (Abdi, 2011). As the world’s largest lake (Farshchi & RouhShahbaz, 2006), Caspian Sea has unique environmental features. The sea has a unique biodiversity. In terms of biodiversity, Caspian Sea is the home of more than 854 animal species and 500 plant species. It is reported that 871 species of invertebrates, 305 species of macro-benthic animals, 566 species of micro-benthic organisms live in the Caspian Sea (Pourkazemi, 2008). There is also more than 100 species of fish in the sea. The best known of these fish are 6 species and sub-species of sturgeon which have been a valuable economic resource over the countries (Aghili et al., 2007). Caspian Seal is one of only two species of freshwater seal (the other one lives in Lake Baikal) and the only mammal that lives in the Caspian Sea. The world-famous of Caspian Sea region is for its fishing potential and especially for its sturgeon eggs (Caviar) which provide more dietary protein needs of the region and create job opportunities for the people of Caspian region.

Caspian Sea is the world’s largest enclosed body of water and issues such as marine resources, oil and gas resources, cargo and passenger transportation and environmental pollution have increased its importance and make it necessary to develop regional cooperation (Abdi, 2011). Caspian Sea always has been a rich source of food and a mean of maritime trade for its coastal states (Talaee, 2000). The Sea connects Middle East to Russia, Central Asia, Caucasus and Europe from one hand and is the center of attention of superpowers and non-state actors because of its rich oil and gas resources from other hand (ShariatBagheri & Jahani, 2011). From the late 19th century, oil and gas industries have been the main industry in the Caspian Region. It is believed that

Caspian Sea has considerable oil and gas resources. Ownership of these resources always has been a controversial issue (Caspian Environmental Programme, 2005). With the collapse of Soviet Union and the emergence of a new international order, the nature of power has shifted from absolute military power to military, political, economic power (HasanKhani & Karimpour, 2014). Lack of an agreed legal regime and competition on exploitation of natural resources have caused in overproduction and it consequently resulted in the significant increase in maritime transportation, increase of goals and services related to oil and gas industry as well as the development of other transportation modes like routes and pipelines. Environmental damage is a direct result of such developmental actions in the Caspian Sea. During the last two decades, "cooperation" has been a concept of great importance in all environmental and legal researches. This paper attempts to assess the resources exploitation in the region and analyze coastal states' policies in order to provide a strategy for development of regional cooperation in the field of environmental protection.

2. Materials and Methods

To conduct this study, data were obtained from libraries, internet websites as well as interviews with relevant experts. Then all data were analyzed descriptively and classified according to research objectives. In the next step, relying on theoretical knowledge and findings of the study, a theoretical model has been developed. Therefore, this study is a descriptive-theoretical research which is conducted using library resources and available documents.

3. Results

Pollution is one of the main challenges of the Caspian Sea that is created from a variety of sources. The major input of pollutants into the Caspian Sea, including oil, petroleum hydrocarbons, and petroleum products is due to river runoff, the discharge of untreated industrial and agricultural wastewater, municipal wastewater from cities and settlements on the coast, navigation, exploration and development of offshore oil and gas deposits, oil shipment by tankers, waste dumping, and the seepage from natural mud volcanoes on the bed (Leonov et al., 2011). "The problem of oil product pollution of marine water areas is of critical importance. Its significance results not only from the multitude of nature-protection aspects, but also from the administrative and legal action with regard to both the issues of exploration, development, and transportation of oil and gas, and the issues of navigation, control, and maintenance of the entire production process chain" (Shaporenko, 2007).

Border disputes in the marine areas and joint ownership of the natural resources that are potential threats to international peace and security are some of the conflicting issues in international level. The importance of the issue is to the extent that in a moment of time, the International Law Commission determined a Special Reporter for it (Mir Abbasi & Jahani, 2011).

Security is a term that always has been of interest to nations and governments; but like many other terms, the security concept has been changed and has different implications. In the recent studies, several dimensions have been added to the concept of security and it has become a multi-dimensional concept that includes different issues – from environmental and economic issues to military threats. So, not only security is not defined negatively as "lack of safety", but also it is defined positively as "favorable conditions for the realization of national goals and interests" and today, third wave of security studies are focused on a third concept known as "reassuring security" (Vaezi, 2011). Geographical location and characteristics have a fundamental role in the formation of other elements of power like economic, military, and political power (Hafeznia, 2007). Changing the various conditions will affect the importance of geographical position and that is why competition of political actors depends on geo-political relations (Ahmadipour et al., 2014).

Accordingly, the increase in power of a government will cause that other countries feel threatened an insecure and take balancing measure (Little, 2007). Therefore, it is very likely that conflict of goals and interests, violent behaviors, and various conflicts happen between various actors. To end the conflicts, a third party should intervene in the matter and facilitate the process (Evans & Newnham, 2002). In contrast this situation; there is an approach of cooperation or regional integration which is based on using positive capacities and potentials of the actors. Such an approach ensures economic, political and strategic integration of the region. Factor like balance of regional and global power, lack of regional unions, low level of regional security and stability, regional strategies and ideological governments are some of geographical and geopolitical factors that affect competitiveness of the nations (HosseinpourPouyan, 2011).

In the recent years, the relationship between environment, nature and human security has seriously been considered in international environment policies. Until 1970s, international security was in a direct relationship with military power (Mosallanejad, 2008). But with the global focus on environmental issues in the present decade, trans-boundary issues, environmental effects of the actions, exploitation of natural resources and

resource limitations, management and utilization of shared natural resources between the governments and its potential impact on international peace and security, the issue of environmental security has become the center of global attention. In the recent decades, issues such as conflict over resources, lack of natural resources, global warming, and concerns about their social and political consequences have been the basis of the world's literature of political and environmental security (Kaviani Rad, 2011). The basic elements of environmental security include solving the problem of natural resources shortage, protect the environment, preservation the nature, prevention from social chaos and conflicts and improving social stability (Ibid). The concept of environmental security is part of a comprehensive security concept. Aside from the concept of comprehensive security, environmental security –as one of the most important factors in security discussions- has particular environmental aspects (Ladaa, 2005). Along with the integration of the environmental matters and issue of international peace and security, various measures have been developed to deal with to formulate and implement environmental regimes. Each of these international considerations and responses to environmental security are a threat against it. In addition to its effect on human health and living creatures, the issue of environmental pollution and degradation also affects social and economic security as well as regional, national, and international security (Ibid, 35). Limited natural resources (especially non-renewable natural resources), lack of equal access to the natural resources and shared natural resources are some of common issues which are also quite evident in the Caspian region. Pollution and pollutants, ecosystem damages, loss of fish stocks, sever fluctuations in water level and general environmental challenges in the Caspian region have trans-boundary implications.

The term "Transboundary natural resources" include all natural resources which can cross political boundaries of a country in their natural shape and without human intervention. Oil and gas fields are a clear example in this respect because they are geographically widespread and belong to more than one country. International Law Commission is called such resources as "shared natural resources" (Ibid, 11). Terms like "joint resources, trans-boundary resources and international resources" are also applied to these resources (I.L.C, Shared Natural Resources, 2008). But, from among all these terms, the term "shared resources" is the most common one (Kashani, 2008). Unlike the immobile resources, fluidity and liquidity of oil and resources make their legal regime different and difficult. Nature of oil and gas reservoirs is even different from other seemingly similar resources such as water. Although oil and gas are mobile and fluid, but they cannot displaced when trapped into the so-called oil trap (Rezaee, 2012). There are different views on the exploitation of the shared natural resources. Some experts believe that oil and gas reserves are just like as a wild animal or bird that if enter a house or property, the owner will have right to own it too. Some other believe that such reservoirs are considered as joint properties in international debates and none of the partners cannot utilize oil and gas resources without the consent of the other partners (Ibid, 14). Today, recent view is partially accepted and is the basis of several agreements. Such agreements are based on the principles of cooperation and joint – utilization. In addition helping to maintain international peace and security and taking into account the rights of all concerned countries in utilizing the shared resource, such cooperation will help to maximize the resources productivity, improve financial discipline and result in economic savings. It also will reduce oil price and help to resource conservation and environmental protection (Ibid)

According to the different legal definitions, it could be said that the joint development refers to joint exploration and exploitation of natural resources and is on the basis of collective agreement on a defined area. The legal framework of this defined area is on the basis of intergovernmental agreements and contracts (do not include agreements between corporations and governments or between the various companies). Joint development can be in different forms (Ibid, 14) including Single State Model, Compulsory Joint Venture System Model and Joint Authority Model. In Single State Model, one government manages and develops oil and gas fields in the conflict region on behalf of other governments and then shares the benefits based on the investment costs of each country (Huh, 2009). In Compulsory Joint Venture System Model, involved governments (or oil companies) establish a Joint Venture Agency for joint development of a special area. In Joint Authority Model, involved governments establish a joint commission, joint authority or joint organization which includes government representatives and has a legal personality. This joint agency grants all the rights and privileges of resource utilization to the involved parties. It is also responsible for supervision of the operation in the defined area (Ibid, 11). In a Joint Development Agreement, a Joint Development zone will be defined as a state in which oil and gas fields will be jointly developed despite all the conflicts on sovereignty and delimitation of boundaries. It should be noted that it is a temporary mechanism and these agreements are not a final solution and do not ignore the rights and legal positions of the involved parties in delimitation of the boundaries (Gao, 1998).

4. Discussion and Conclusion

In determining the effective factors in the political geography, two categories of fixed and variable factors are named. In fact, the fixed factors are actually the same natural and geographical phenomena (Ghafoori, 2016). Caspian Sea is the world's largest lake and one of the very important energy resources of the world (ShariatBagheri & Jahani, 2011). Having rich oil and gas resources and a leading position for energy transmission, Caspian Region becomes geopolitically important in the international level. After the dissolution of Soviet Union, the region becomes an active region with special functions (Taheri, 2010). Geo-economics importance of the Caspian Sea is mainly because of its oil and gas resources (Eta'at, et al., 2011). The negotiations process of Caspian littoral states indicates there is no a desired level of integration in the region (Ahmadipour, et al., 2014). Regional integration means economic, political and strategic integration of the Caspian littoral states to develop an integrated regional regime (Mojtahedzadeh, 2010).

Disagreement about legal description of the Caspian Sea is the main barrier to success of littoral states to develop an agreed legal regime (Ibid, 6).

Geopolitical theories –like Friedrich Ratzel theory on the importance of Central Eurasia, Mackinder's Heart land theory and its emphasis on the dominant role of Caspian Sea to rule the world, Spykman's theory that with a slight different is just like as Mackinder's theory, Jeffrey Camp's theory on Strategic Energy Ellipse that suggests the Caspian Sea is one of two major strategic energy reserves of the world and emphasize on the great geo-politic importance of this sea in the region and world (Ibid, 25) can reveal the cause of regional and global competition in this part of the world.

Since the 1970s oil crisis and OPEC oil embargo, the concept of energy security became important (Parag & Sarker, 2009). There are four important factors that play a vital role in energy security including quantity, identified and secured resources, diverse resources and supply stability (HasanKhani & Karimipour, 2014). With the dissolution of Soviet Union, Central Asia and Caucasus were faced with a power vacuum. The years were characterized by rising oil prices and widespread western propaganda entitled as "Caspian Sea, the Second Persian Gulf" which resulted in geo-economic importance of the region (Nami, 2010).

According to the Energy Information Agency of the United States, with an increase in exploitation of natural gas from Caspian Sea in the near future, this area will become the new field of world natural gas. After the dissolution of Soviet Union, Central Asia countries have played a more important role in the international political and economic outlook (Zabortseva, 2012). In the case of instability of Saudi Arabia and involvement of Iran, Iraq and Syria in regional conflicts, Middle East oil would be unreliable. Technical limitations, natural and regional structural barriers (like economic, political, legal and social issues) and economic and political conditions in the regional and international levels are some of the most important factors in ensuring energy security in the region.

Geo-economics importance of the Caspian Sea is mainly because of its oil and gas resources (Eta'at, et al., 2011). With the collapse of the Soviet Union and the absence of one of the political forces, it constitutes a very important link between the Caspian Sea and the Persian Gulf, as a liaison between fifteen countries (Al-shboul & Al-Rawashdeh, 2013). The Middle East Caucasus as newly appeared region that its countries have recently become independent is a new and original environment to create relations and exchange resources and the national benefits (Yousefi, 2016). The geopolitical and geostrategic position of Caucasus (and Caspian Region) in vicinity of Europe, Russia, Central Asia, and Middle East and the energy sources and markets and financial interests have made the region more and more important. These national interests include the ideological, political, economic, security, military and cultural interests. Its special geographical location added to the complexity of the region (Baei Lashaki et al., 2013). The negotiations process of Caspian littoral states indicates there is no a desired level of integration in the region (Ibid, 25). Regional integration means economic, political and strategic integration of the Caspian littoral states to develop an integrated regional regime (Mojtahedzadeh, 2002). It seems some of the challenges have been agreed on September 2014 at the Fourth Summit of Caspian littoral states in Astrakhan (Russia). Some of these agreements are on the delimitation of maritime boundaries and determination of 15 miles as territorial waters and 10 miles for fishery (25 miles totally) and recognizing the rest of the sea as the joint water. But despite the mutual agreement between littoral states – especially in the northern part of the sea, issues related to ownership and sovereignty over the seabed and subsoil resources and their exploitation regime are still unresolved challenges that may threaten the stability and security of the region and the world. Reviewing bilateral procedures that are performed during the past four decades to manage shared resources proved that cooperation in the exploration and exploitation of these resources is the best and most effective policy. Negotiate in good faith is generally accepted as the basic solution in international law

which prohibits the governments from unnecessary disruption of negotiation process (Ibid, 14). In this regard, Article 142 of the Convention on the Law of the Sea stipulates that any activity in the area of shared resources should be done taking into account the rights and legitimate interests of coastal States. It is also necessary to establish a Forecasting Advisory System that prevent from loss of rights and damage to resources. The concept of cooperation and prohibition of unilateral exploitation of shared natural resources has been also addressed in international dispute resolution bodies. For example, International Court of Justice delivered judgment in North Sea Continental Shelf Cases, Aegean Continental Shelf Case and Libya and Tunisia Continental Shelf Case. International Court of Justice also involved in international arbitration including Eritrea and Yemen Arbitration, Guyana and Suriname arbitration as well as Consultative Commission proposal of Iceland and Norway. In all the cases, the court stated that all involved parties and governments should cooperate in exploration and exploitation of shared natural and refrain from any unilateral action resources and emphasized on the need for negotiation until an agreed regime be developed (Ibid, 11). General Assembly resolution on the United Nations Environment Programme which is conducted for the guidance of states in exploitation of shared natural resources also considers issues like equitable utilization of resources, intergovernmental cooperation in the field of equitable utilization of resources, attempts to develop multilateral agreements, support for sovereignty of involved states in the exploitation of natural resources based on the policies of their governments (with an emphasis on international responsibility of the involved government with regard to their activities within their jurisdiction or territory causing damage to the environment of other states or areas beyond their national jurisdiction them), assessment of environmental impacts of the activities, and consultation and cooperation in the development of international law for international responsibility of States for environmental damage.

Examining bilateral treaties between some of the Caspian littoral states suggests that divisions were made based on the Modified Median Line. The special status of the Caspian Sea suggests that the median line is not a fair solution because it has resulted in different shares for the Caspian Littoral States and does not solve disputes related to shared oil and gas resources oil fields, flying over the sea, access to Volga- Dan Channel, responsibility for environmental pollutions and so on (AghaiDiba, 2004). Proponents of the theory of joint ownership of Caspian Sea rely on the vote of International Court of Justice on the joint ownership of Fonseca Gulf that shared the entire gulf – with the exception of three miles as the exclusive range of property – between El Salvador, Nicaragua and Honduras (Ibid). The importance of this vote is in the development of a legal regime for joint or shared property without the consent of the coastal states (Granmayeh, 2005).

Finally, it can be concluded that the legal regime of Caspian Sea cannot be fully developed on the basis of other legal, historical and geographical theories and it needs to regional cooperation and agreement. But is it possible to exploit the hydrocarbon resources of the Caspian Sea delayed till the lengthy negotiations on the legal regime of the sea to be finalized? Economic, social and political structures of some coastal states reject this theory and use of Caspian Sea oil and gas resources seems inevitable. It appears that Caucasus (and Caspian) region needs more serious and effective efforts of regional and international actors and organizations to ensure lasting peace and security (Jansiz, 2015). Therefore, it can be said that Caspian Sea is a *Sui Generis* and this uniqueness requires specific solutions and approaches. Unique properties of the Caspian Sea (e.g. being an enclosed body of water) have resulted in progressive effects of its pollutants on the environment and ecosystem. State practices in different parts of the world – including the South China Sea, the Gulf of Thailand, East Timor Sea, Persian Gulf, Red Sea, Mediterranean Sea, the North Sea, the Gulf of Guinea and the Baltic Sea – suggest interim arrangements for the joint development or unitization of the resources (Ibid, 6). In the case of the oil and gas fields which are developed unilaterally by some states, some legal bodies believe that compensation is the best solution (AghaiDiba, 2001). Therefore, using the model of joint development is one of the effective ways to achieve economic, social and political goals of the Caspian Littoral States. Therefore, it seems that “Joint Authority” model is best suited to the Caspian Sea conditions. This Joint Authority can be an organization with an independent legal personality or subsystems and subcommittees of the Caspian Sea Cooperation Organization. Such an organization can facilitate sustainable development in the region and promote regional and international peace and security.

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