

The Geopolitics of Energy in the Caspian Basin

Zeinolabedin, Y.*, Yahyapoor M. S. and Shirzad, Z.

Department of Human Geography, Islamic Azad University, Rasht, Guilan, Iran

Received 12 May 2010;

Revised 19 Sep. 2010;

Accepted 25 Sep. 2010

ABSTRACT: After the Soviet Union fragmentation, the attentions of regional and international countries have turned to this region for oil and gas discovery in the Caspian Basin. After that, this region enjoys more geopolitical importance increasingly. Therefore, the main question is: "what factors can influence the new geopolitics of the Caspian basin?" It seems that, some issues such as the lack of a legal status of the Caspian Sea, the pipeline routes for transportation of energy to the world markets and the ecological and environmental issues arising from hydrocarbon resources make the Geopolitical issues of the Caspian basin more complicated. The purpose of presenting this paper is to explain the new geopolitics of the Caspian and different position of each littoral states and international countries regarding as how to use the new hydrocarbon resources of the basin. According to the research findings, each of mentioned countries follows their own national interests in the Caspian basin.

Key words: Geopolitics, Caspian basin, Legal status, Pipeline routes, Environmental issues, Oil, Gas

INTRODUCTION

The geopolitical importance of the Caspian region dates well back in history. Absheron Peninsula, the region, known west of the Caspian Sea, was among the first producers of oil and petroleum products. The Bible contains references to some sort of petroleum products in the Baku region, in Azerbaijan. Even Marco Polo alluded to a small 13th century export trade in oil soaked sand and also to the Caspian delicacy, i.e. caviar. The region continued to be geopolitically important in the 20th century during the 1973 oil embargo and the 1991 Persian Gulf War (Zeinolabedin, 2009). Alongside the political significance related to the economy and geographic location, the oil and gas reserves of the Caspian and the multiplicity of the region's transcontinental corridors including its relative proximity to the Persian Gulf highlight the Caspian on any global geopolitical map.

MATERIALS & METHODS

Research method in this article includes three steps. At first, scientific data were gathered from the libraries of universities and relevant institutions and network sites. Secondly, the data were classified and then these data were tested with touchstone of science. Therefore, it is a plausible excuse that there is not a site address as a reference in this article. Finally, the authors analyzed all the data critically to gain a scientific result. Briefly, the hypothesis testing in this paper is descriptive analysis one, based on library gathering data and for

*Corresponding author E-mail: zeinolabedin@iaurasht.ac.ir

the best presentation of the content maps, diagrams and tables are used.

RESULTS & DISCUSSION

Oil and Gas Resources

Oil and gas have been major industries of the Caspian since the end of 19th century. On the one hand, regarding landlocked position of three new independent republics of the Caspian basin, the Soviet Union fragmentation makes instability in specially three important countries of Afghanistan, Iran and Turkey (USCNS, 2002, Mojtahed Zadeh, 2000). On the other hand, the Caspian basin is believed to contain considerable oil and gas deposits, though the magnitude and value are in some cases not estimated. Location and ownership are also controversial. Up to now, oil reserves are estimated to be approximately 50 billion barrels. Natural gas reserves are even larger. The resources of this basin will be enduring source of energy after Persian Gulf until 40 years (Roshan and Farhadian, 2006). Accordingly, the produced oil and gas should be transported to the markets. Existing pipelines and other infrastructure make this task possible (Fig. 1).

Oil exploration and production are increasing in the Caspian and are already well established in the Baku (onshore and offshore) and Tenghiz (onshore) regions (Rais Dana, 1996). Oil production is expected to increase dramatically during the next few decades (Fig. 2).

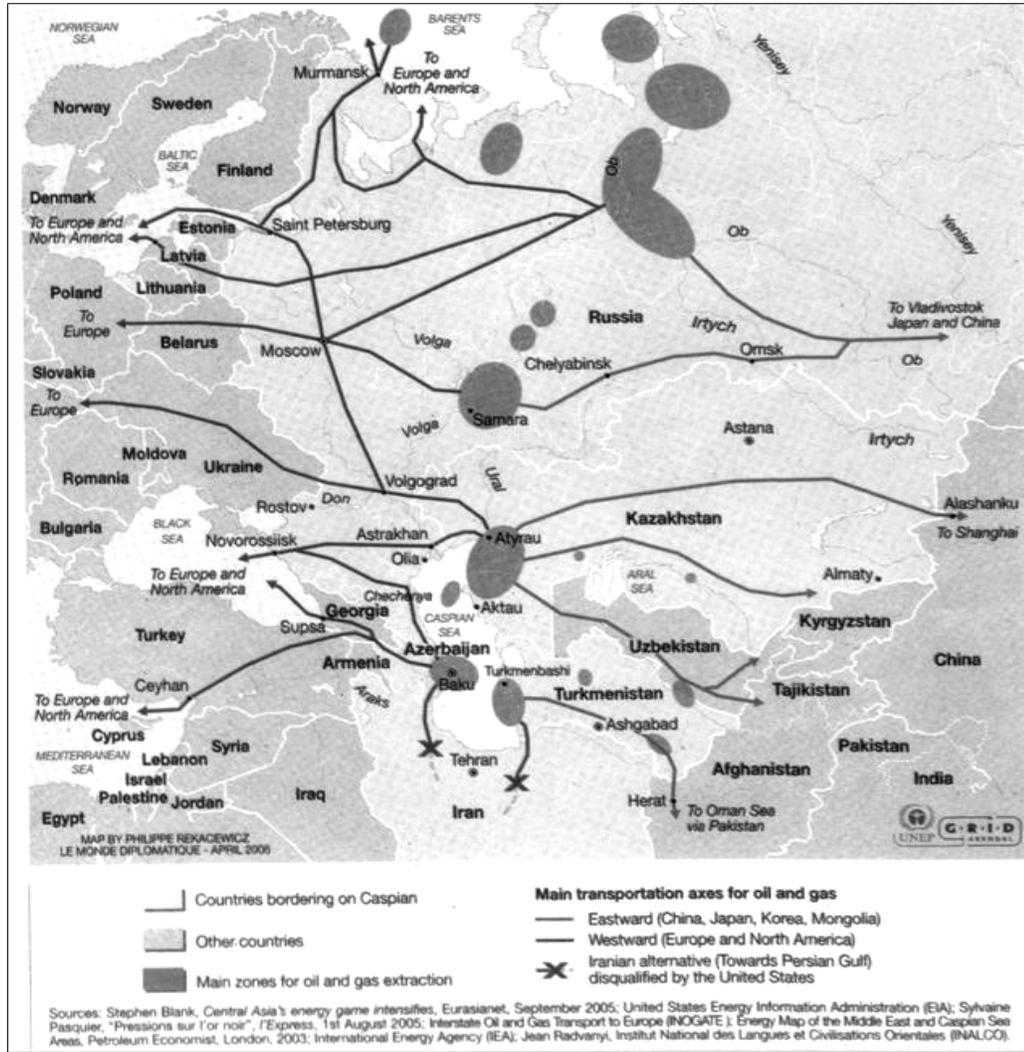


Fig. 1. Main Transport Axes for Oil and Gas

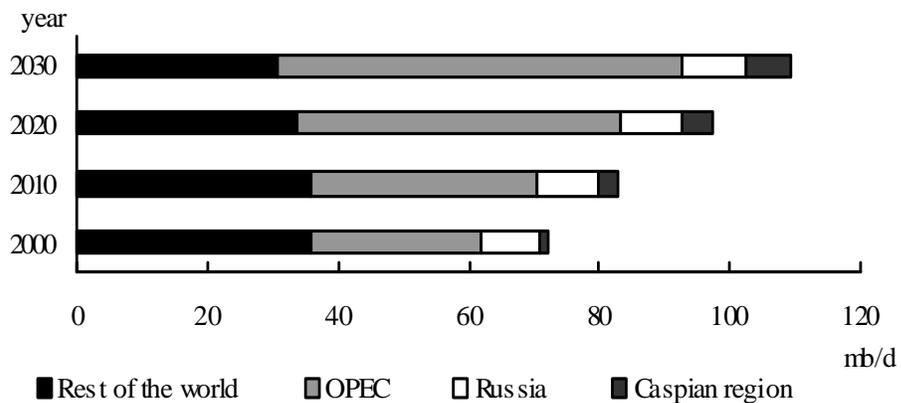


Fig. 2. World oil production to 2030 (Van Agt, 2004)

In this way, the Caspian region can provide 4500 kb/d oil until 2015 and this process might be increased (Fig. 3).

CASPIAN BASIN RESOURCE MANAGEMENT

The attention of the wider international community has turned to the Caspian basin in part because of its rich natural resources. The international competition for the access to oil and gas reserves and the need to bring them to world markets, has caused closer tie amongst national interests of different countries of the world (Fig. 4).

On the other hand, there are some issues that turn management more complicated in this region; such as lack of legal status of the Caspian, pipeline routes and

ecological issues arising from energy exploitation and exploration.

Legal Status of the Caspian

During the Soviet period, most of the Caspian Sea coastline, apart from a small Iranian portion in the south, belonged to the Soviet Union. The fragmentation of the Soviet Union, however, brought about five states sharing the coastline and claiming jurisdiction over parts of the Sea. Therefore, it is possible to think the date of the new coastal countries independence is the birth date of the Caspian basin and accordingly, this basin looks like a tabula rasa which is in need of a new legal status (Molai, 2005). Although it is not difficult to see the urgent need for an explicit definition of the legal status of the Caspian, the ongoing

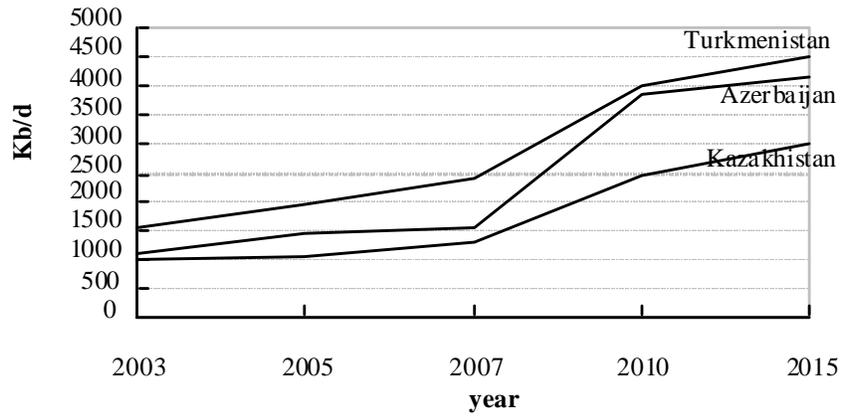


Fig. 3. Potential Caspian oil production growth in Kb/d (Van Agt, 2004)

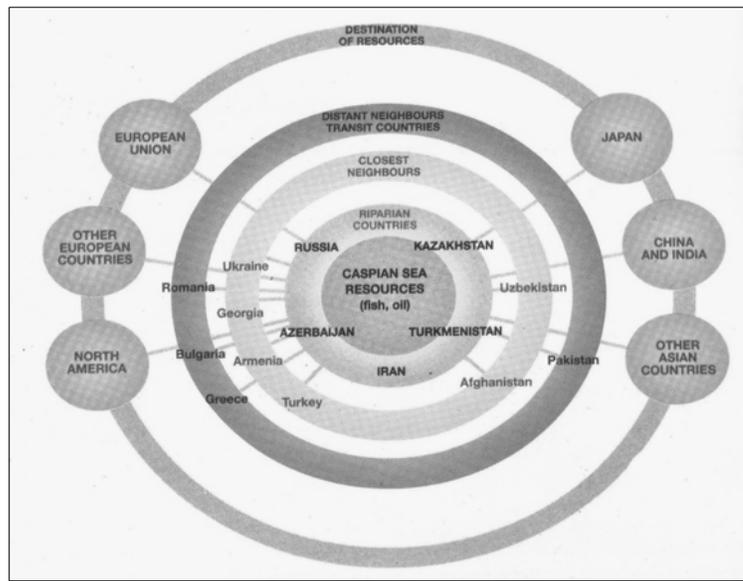


Fig. 4. Caspian Sea Neighbors and other Beneficiaries (Forster, 2006)

discussion among the littoral states has tended to dwell on the definition of the Caspian as a sea or a lake, while the real problem appears to be one of the profit sharing (NADSA, 2002).

In general, the choices regarding the status of the Caspian Sea under international law is between common ownership of the Caspian, thus subject to the joint sovereignty of all the littoral states, and delimitation based on some sort of formula to be agreed on. However, there is not any historical precedent that can illuminate a solution to the Caspian's status. There is, of course, the fact of an exclusive Russian naval and military presence for about 200 years and the signing of a number of treaties between Russia/Soviet Union and Persia/Iran concerning freedom of navigation, maritime activity and trade in the Caspian Sea. Russia has been quick to use the 1921 and 1940 treaties to pursue her views, especially with Azerbaijan and Kazakhstan, that the Caspian is an object of common use by the littoral states on an equal basis (Molai, 2005). Azerbaijan, in particular, has increasingly emphasized that these treaties are not applicable to the present-day problem of defining the status of the Caspian because they are only applied to navigation and fishing; leaving the problem of the exploitation of mineral resources as open issue and under the seabed out of their scope.

Russia's original position bases on protecting navigation freedom on the Caspian to maneuver both its own lost power (in the past) and its monopolistic navigation power in this region (at present). Thus, Russia emphasized to apply the Law of Sea formerly and now –considering Caspian as an inland lake (not a sea) and should be governed as such- apply its own effort to share the surface of the sea and to divide the seabed. Therefore, in Tehran conference (2007) Russia, argued utilization is the only way forward (Afrasiabi, 2007) and continues this position until now.

In contrast to the original Russian position, the Azeri position was described as the “border lake” concept, with national sectors formed by median line and the extension of international borders into the Caspian. Accordingly, each littoral state would have exclusive sovereignty over biological resources, water surface, navigation and exploitation of the seabed in its own sector. At times, it has also aired the “open sea” concept with 12-mile territorial waters and adjoining exclusive economic zones exceeding 200 miles, in agreement with a median line principle. Kazakhstan generally supports Azerbaijan's position, though with a variation regarding the exclusive economic zones formed by a central line equidistant from points on coastline. Accordingly, Azerbaijan and Kazakhstan in a unilateral manner have already divided the Caspian

to suit to their own designs, though Iran, Russia and Turkmenistan object to such moves.

Turkmenistan has claimed full rights to the Azeri and Kyapaz/Serdar oil deposits and partial rights to the Chirag oil deposits. However, the lack of Russian support for Turkmenistan has led the latter to search for a deal with Azerbaijan, which now seems quite possible.

Iran continues to insist on a condominium solution, protesting against plans to construct underwater pipelines across the Caspian, favoring the transport of oil by the existing pipelines through Iranian and Russian territory. Nevertheless, Iran could accept a sectoral principle of Caspian Sea division if its interests are taken into account, primarily in the Azerbaijan-Turkmenistan deal concerning the partition of the southern Caspian (Fig. 5).

Pipeline Routes and International Rivalries

One of the peculiar features of the Caspian oil picture is that the regional countries are mostly interested in the early exploration and transport of oil and natural gas that are landlocked and have to rely on the goodwill and co-operation of their neighbors. Therefore, the Caspian Sea, join two regions of the Central Asia and Caucasus (Cohen, 2002). Thus the region's political and strategic conditions assume prominence when discussing which route should be chosen for transport of hydrocarbon resources out of the region.

The initial regional power vacuum created by the fragmentation of the Soviet Union has pulled most of the regional states and some external powers into a dangerous power-influence game played out in a rapidly changing Eurasian scene (Naderpour, 2007). Among the countries that envisioned playing a key role in the region at one time or another are the Russian Federation, Turkey, Iran, Saudi Arabia, the United States, the European Union, Pakistan, China, Japan and so on (Saghafi Ameri & Naghi Zadeh, 1999). Obviously, each country has specific objectives and the competition has economic, political, ideological and religious dimensions. As such, there exist various possibilities for conflict among regional rivals (Tables 1 & 2).

In spite of this, two important coastal states of Russia and Iran can play an effective role: Iran needs the support of Russia to be a main corridor of the exports of both Russia and new independent countries that suffer from land locked position (Molai, 2003). This remembers the definition of geopolitics in Gray point of view when he defines geography as energy, energy as economy, economy as security and security as geopolitics (Hafeznia, 2006).

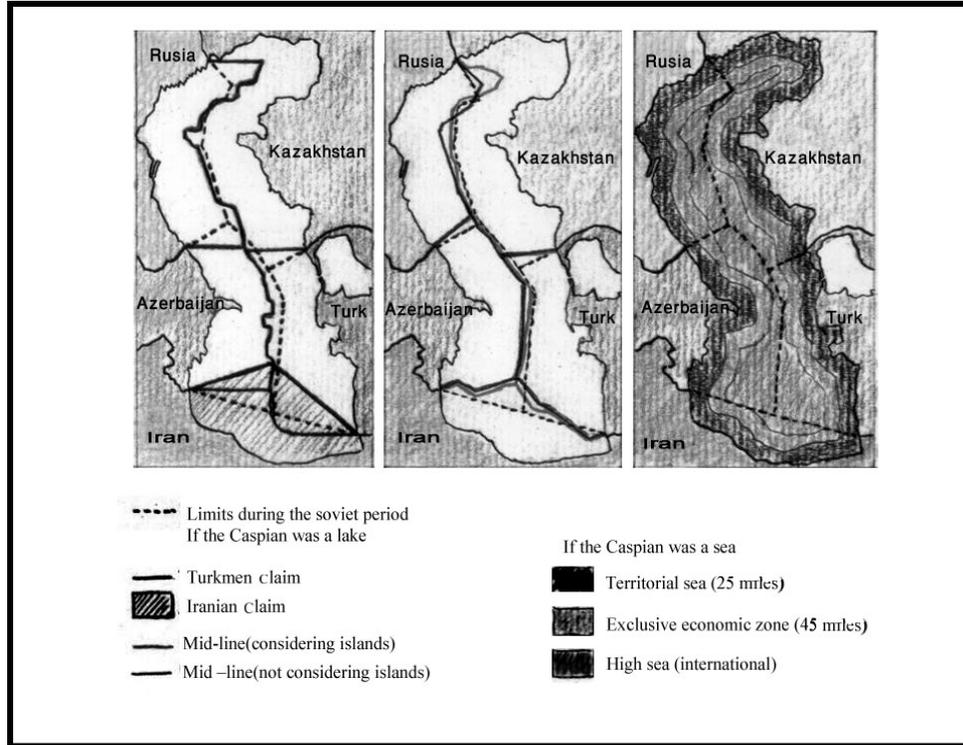


Fig. 5. Unstable Legal Statues Source (Dehghan, 2005)

Table 1. Oil Pipeline Routes (Ahmadi Lafooraki, 2004)

Project	Length(km)
Atyrau(Kazakhstan)-Samara(Russia)	432
Baku-Jeyhan(Turkey)	1038
Baku-supsa(Georgia)	515
Baku- Novorossiysk(Russia) (north route)	868
Baku-Maha chka la(Da ghestan)-Novorossiysk	204
Tenghiz- Novorossiysk	990
Kazakhstan- Gawadar(Pakistan)	1040
Baku-Tabriz(Iran)	-
Neka(Iran)- Tehran	208
Acktyubinsk(Kazakhstan)-Xinzhuang(China)	1800
Kazakhstan-Turkmenistan- Khar k(Iran)	930
Dubendi(Azerbaijan)Khashury- Batumi(Georgia)	Khashury- Batumi 105
Aktau(Kazakhstan)-Baku(Azerbaijan)	370

Table 2. Gas Pipeline Routes (Ahmadi Lafooraki, 2004)

Project	Length(km)
Baku(Azerbaijan)-Teflis(Georgia)-Erzerum(Turkey)	540
Douletabad(Turkmenistan)-Heart(Afghanistan)-Multan(Pakistan)	870
Turkmenistan- Kazakhstan- Uzbekistan- Saratov(Russia)	Existing routes
Turkmenistan- Jinjiang(China)	4161
Turkmenbashi(Turkmenistan)- Baku(Azerbaijan)-Teflis(Georgia) Erzerum(Turkey)	1020
Korpezhe(Turkmenistan)- Kurt-kui(Iran)	124

Environment and Ecology

Lots of studies have discussed water and soil pollution within the Caspian basin (Nasrabadi *et al.*, 2010; Nabi Bidhendi *et al.*, 2007) and similar ones due to anthropogenic exposures (Vicente and Cerezo, 2010; Banerjee and Srivastava, 2010; Adekunle *et al.*, 2010; Zahed *et al.*, 2010; Nasrabadi *et al.*, 2009; Zagas *et al.*, 2010; Otitoloju, 2010; Baghvand *et al.*, 2010). The World's attention is attracted to the region by regional rivalries over the highly explosive issues of oil extraction, transport and profit sharing, and occasionally by ethnic tensions. However, there is another, equally important, danger about which politicians and oil-interests generally remain silent, namely the ruination of the Caspian's unique ecosystem and an accompanying irreversible environmental catastrophe (Zeinolabedin, 2007). This is due to a total lack of respect for overall regional development and the former Soviet Union's long-term violation of generally accepted environmental norms. The present rush of Western oil companies and a lack of control

over oil exploration operations in most of the newly independent Caspian littoral states only exacerbate the situation (Mostaghimi, 2005).

The general ecological situation is already beyond recovery throughout the region. In addition to the rising sea level and the flooding of coastal areas, the problem of the increasing saturation and greasiness of the soil further worsens the conditions. Because of rising pollution, disturbances caused by the hasty exploration of the coastal shelf and the development of offshore oilfields, various forms of aquatic life face the threat of extinction in the Caspian. Moreover, because of the concentration of hydrocarbon waste, which is three times higher than the permitted norm as a result of the development work on the Azeri, Chirag and Guneshli oil fields, the Azerbaijani coastline is now declared unsafe for humans (Clark, 2005).

This large-scale environmental and ecological damage underlines the need for an international authority to enforce compliance with appropriate

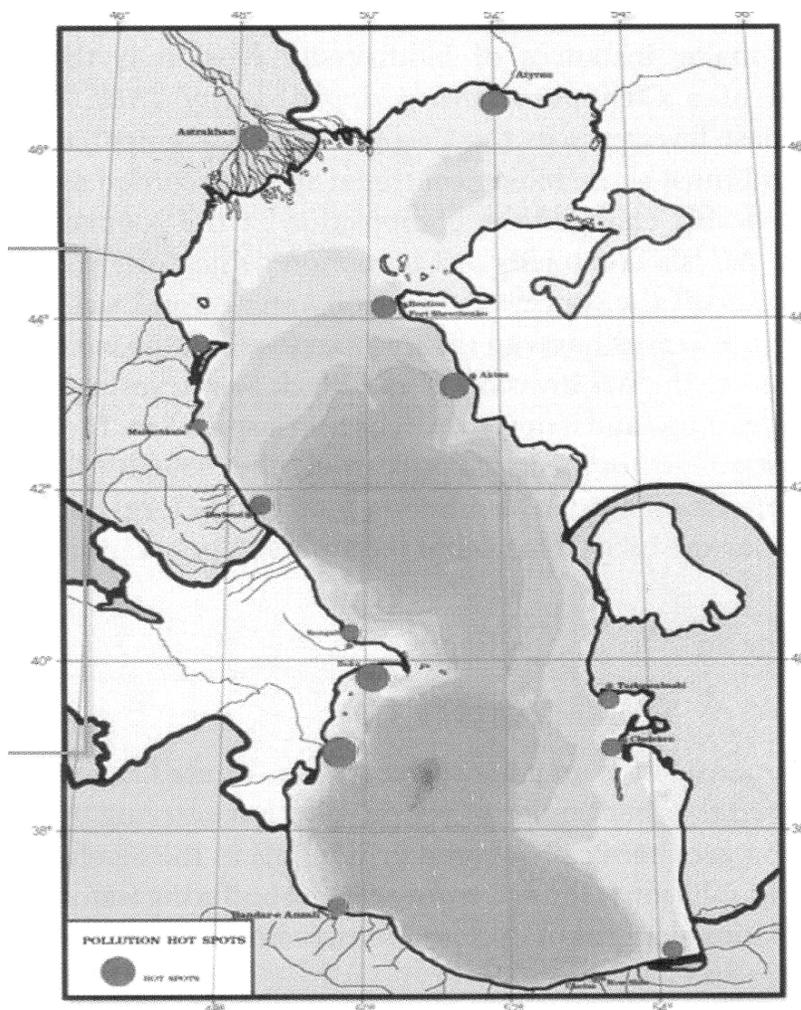


Fig. 6. Pollution Hot Spots of the Caspian

environmental norms in the Caspian Basin. However, as the negotiations on legal issues surrounding the Caspian Sea are intermingled with the resolution of environmental concerns, the ongoing dispute over access to resources presents a major obstacle to the effective management of such problems, particularly at the supranational level.

CONCLUSION

After the Soviet Union fragmentation, the Caspian basin, containing considerable resources _specially oil and gas reserves_ enjoys more geopolitical importance. There are some association and contrast between the regional and international countries interests, about using these resources. The lack of legal status in the Caspian basin, economical needs of the new independence republics of the former Soviet Union and the entrance of international players to this region cause to hasty use of its resources. Thus, this process causes the Caspian basin face numerous environmental issues. Furthermore, transportation routs of existing energy of the Caspian to the world markets turn the players' role more complicated in this region. The coastal countries in the Caspian (Russia, Iran, Kazakhstan, Azerbaijan, and Turkmenistan) have not yet reached an agreement about the division of the Caspian potentials.

Considering the Caspian as a 'lake', _not sea_ makes it impossible to solve existing problems of this region under United Nations Convention on the Law of the Seas. Therefore, these disputes in the Caspian basin had to be ended through diplomacy and agreement norm between the littoral states. Thus, the interference of big powers _specially, United States of America_ is the main obstruction to achieve an agreement between the Caspian basin countries. At the other hand, holding Iran back cooperation in new plans related to oil and gas transportation pipeline routes make these disputes doubled.

REFERENCES

Adekunle, I. M., Ajijo, M. R., Adeofun, C. O. and Omoniyi, I. T. (2010). Response of Four Phytoplankton Species Found in Some Sectors of Nigerian Coastal Waters to Crude Oil in Controlled Ecosystem, *Int. J. Environ. Res.*, **4** (1), 65-74.

Afrasiabi, K. (2007). Tehran Success: A View on the Caspian Conference in the Sa'd-abad Palace", *Diplomatic Hamshahri Monthly*, **N. 19**, P.41.

Ahmadi Lafooraki, B. (2004). *Directory of Caspian Region and Central Asia and Caucasus Countries*, Tehran, Abrar-e-mo'aser-e- Tehran.

Baghvand, A., Nasrabadi T., Nabi Bidhendi G. R., Vosough, A., Karbassi A. R. and Mehrdadi N. (2010). Groundwater

quality degradation of an aquifer in Iran central desert, *Desalination*, **260** (1-3), 264-275.

Banerjee, T. and Srivastava, R . K. (2010). Estimation of the Current Status of Floral Biodiversity at Surroundings of Integrated Industrial Estate-Pantnagar, India, *Int. J. Environ. Res.*, **4** (1), 41-48.

Blank, S. (2005). *Central Asia's energy Game Intensifies*, (New York, United States Energy Information Administration (EIA).

Clark, R. B. (2005). *Marin Pollution*. Translated to Persian by: Dr. Neematollah Jaafarzade Haghighi, Tehran, Avay-e-Ghalam Publication.

Cohen, S. B. (2002). *Geopolitics of the World System*. US, Rowman and Little Field.

Dehghan, F. (2005). *Caspian Sea and National Security*. Bashir Elm & Adab Press. 131.

Forster, H. (2006). *Vital Caspian Graphics; Challenges beyond Caviar*. Translated to Persian by: Dr. Seddigheh Babran and Nazli Honar Bakhsh, Tehran, UN.

Hafeznia, M. R. (2006). *Principles and Concepts of Geopolitics*. Mashhad: Papeli Press.

Molai, A. R. (2003). *A Survey on Geopolitics Reader*. Tehran, Publication of Imam Bagher Faculty.

Molaie, Y. (2005). *Sovereignty and International Law*, Tehran, Elm Publication.

Mostaghimi, B. (2005). *Environmental Protect of the Caspian Sea*. Tehran, International and Political Studies office.

Mojtahedzadeh. P. (2000). *Geopolitics Ideas and Iran Realities*. Tehran, Ney Publication.

Nabi Bidhendi, G. R., Karbassi, A. R., Nasrabadi, T. and Hoveidi, H. (2007). Influence of Copper Mine on Surface water Quality. *International Journal of Environmental Science and Technology*, **4** (1), 85-91.

Naderpour, B. (2007). Central Asia, ECO and Regional Integration: Existing. *Political Science Quarterly*, No 1, Islamic Azad University (Central Tehran Branch). Pp 93-108.

NADSA, (2002). *Caspian Sea & Iranian Interest*, Tehran, Saye roshan publication.

Nasrabadi, T., Nabi Bidhendi, G. R., Karbassi, A. R., Hoveidi, H., Nasrabadi, I., Pezeshk, H. and Rashidinejad, F. (2009). Influence of Sungun copper mine on groundwater quality, NW Iran. *Environmental Geology*, **58**, 693-700.

Nasrabadi, T., Nabi Bidhendi, G. R., Karbassi, A. R. and Mehrdadi, N. (2010). Evaluating the efficiency of sediment metal pollution indices in interpreting the pollution of Haraz River sediments, southern Caspian Sea basin, *Environmental monitoring and assessment*, **171** (1-4), 395-410.

Otitolaju, A. A. (2010). Evaluation of Crude Oil Degradation Under a no-control and Dispersant-Control Settings, Based on Biological and Physical Techniques. *Int. J. Environ. Res.*, **4** (2), 353-360.

- Rais Dana, F. (1996). Convergence, Basing on the Caspian Ring. *Quarterly of the Central Asia's and the Caucasus Review*, N. 14, Tehran: Ministry of Foreign Affairs, Pp 266- 287.
- Roshan, A. A. and Farhadian, N. (2006). *Military-political Geography abbreviation dictionary*. Tehran, University of Imam Hussein.
- Saghafi Ameri, N. and Naghizadeh, S. (1999). Pipeline Diplomacy – a symbolic case of strategic challenges in the Caspian Sea basin. *Quarterly of the Central Asia's and the Caucasus Review*, N. 27, Tehran, Ministry of Foreign Affairs. pp 25- 44.
- USCNS, (2002). *The United States Commission National Security, American Security in 21st Century Translated to Persian by: Jalal Dehmeshghi and Others*. Tehran, Abrar-e-moaser-e- Tehran.
- Van Agt, Ch. (2004). *Economic development and geopolitics in the Caspian region*. UK, University of Cambridge.
- Vicente, J. A. and Cerezo, R. B. (2010). *The Socio-Economic Contributions of Marine Protected Areas to the Fisherfolk of Lingayen Gulf, Northwestern Philippines*. *Int. J. Environ. Res.*, **4 (3)**, 479-490.
- Zagas, T., Tsitsoni, T., Ganatsas, P., Tsakalimi, M., Skotidakis, T. and Zagas, D. (2010). *Land Reclamation and Ecological Restoration in a Marine Area*. *Int. J. Environ. Res.*, **4 (4)**, 673-680.
- Zahed, M. A., Aziz, H. A., Isa, M. H. and Mohajeri, L. (2010). *Enhancement Biodegradation of n-alkanes from Crude Oil Contaminated Seawater*. *Int. J. Environ. Res.*, **4 (4)**, 655-664.
- Zeinolabedin, Y. (2007). *The Encounter of Geopolitics and Environmental Issues in the Caspian Sea*. Paper Presented at the First Development Strategy in Geography Conference. (Astara: Islamic Azad University of Astara Branch).
- Zeinolabedin, Y. (2009). *Iran Geopolitical Interests in Caucasus*. Paper Presented at the International Conference of Caucasus Through History. Tabriz, Aran Cultural Institute. P 244.