

## IRAN'S ENERGY SECURITY STRATEGY IN THE TWENTY-FIRST CENTURY

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### ABSTRACT

Today, energy is a strategic commodity and is considered the key components in the communities. So that without access to sufficient energy developing countries is not possible. In other words, energy has vital role in determining the position of countries in the international hierarchy. Therefore, energy security has become one of the concerns of our countries. In this regard, Producing countries seek strategies in order to have a continuous and unfluctuating market to sell their energy resources. As a major manufacturer, Iran has a unique position in the field of energy. Therefore, explaining the position of Iran in the field of energy, and strategies and policies to achieve energy security is the purpose of this paper. The question of this article is as follows:

What is the reason of compliance incommensurability of Iran's international status in terms of energy resources (oil and gas) and where is its position in the cycle of energy security and international hierarchy?

**Keywords:** *Energy Security Strategy, Iran, Outlook Document*

### INTRODUCTION

The need to achieve energy security- Access to sustainable, affordable energy principles for Transportation and power generation in a market for energy supply without fluctuations and falling prices has caused Highlighted these issues in developing countries and industrial policy (Kalicki and Goldwyn, 2005). A successful strategy in energy security should be concentrated on avoiding cut in oil flow and reduce the gap in short-term losses and reduce the vulnerability of the West's current dependence on energy imports (Desse & Nye, 1980). In the meantime the countries are seeking to develop strategies to secure access to energy. Iran is one of the leading manufacturers in the field of energy and enjoys a special place. This position, in turn, can have a significant impact on the country's progress and improve Iran's position in the international hierarchy. So the question of this article is as follows: What is the reason of compliance incommensurability of Iran's international status in terms of energy resources (oil and gas) and where is its position in the cycle of energy security and international hierarchy? To answer this question, the security issue is examined from the perspective of the Copenhagen. Following that Iran's status in the energy cycle has been explained and then Iran's strategy in the energy field, both in theory and in practice will be scrutinized. Finally, summing up Iran's energy strategy will be expressed by the Copenhagen point of view.

#### ***Security from Copenhagen Perspective***

One of the goals of defining security is that it gives politicians a guide and role model in the policies of state security. Security rules maybe expressed by theorists but are used by officials and politicians (Lord, 1923). The second goal of this definition is that it is a Guide and policy for public opinion which encompasses Way of thinking about security or Principles that should be in decision-makers policy (Rothschild, 2007).

The third goal of this definition is that it is possible to select among competing policies. Fourth and the last purpose is direct influence on the distribution of wealth and power (Stephen, 1995). In this study the first goal is considered. The following definitions of security from the perspective of international relations thinkers are as follows:

Ian Bellany believes that Security is relative relief from threats (Bellany, 1981). From Lurence Martin point of view security is insurance of future prosperity (Martin, 1983).

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With reviewing these definitions it can be found that most of these definitions focus only on one aspect of their security and that is the National security. In other words these definitions often make the values, time and intensity of threats and political nature of security as a target for the government. However, it should be stated before the researching the Copenhagen perspective and specially Barry Buzan emphasis on military security and that military dimension of security and the formation of the school of Copenhagen on various aspects of security were discussed. So for better understanding of the various aspects of security, following the principles and assumptions of the Copenhagen School are looked into.

### ***Subjective Security of Bi-Mental***

Buzan defines security as a bi-mental subject. From this definition two subjects can be concluded: First, the security threshold of government- nation is different. It is important to note that other actors. When governments make an issue a security issue, this is a political reality that will have consequences. In this context, the understanding of security threshold of other actors and in other words their security red lines and where they feel secure (Abdolahkhani, 2010).

### ***Government Centric Insecurity Authorities***

In The Copenhagen school, people cannot be recognized as security authorities. In total, however, Individual security indicates a certain level of security and is an important analysis, basically, obeys higher government and international political structures. So the Copenhagen school rejects the individual centric in security authorities and concentrates on government as security authorities and believes that by far is the most powerful actor in the international system of states and now have become the most important political legitimacy in global benchmarks (Smith, 1999).

### ***Extensive Security against Limited***

Buzan who is a neo-realist in a very extended form, Robustly questioned the safety limit and extended the one-dimensional security to into five sectors military, political, economic, social and environmental (Abdolahkhani, 2010).

### ***Reference Purposes of Security***

Copenhagen school because of the extensive security and has tried to transforming one-dimensional security into five to explain the reference to the objectives of security in each from these sectors; for this purpose uses the Existential Threat Implications (Buzan, 1998). Therefore, based on the concept Existential Threat The purpose of the reference security in the economic sector is as follows.

Detection reference purposes and threatens the economic sector is very difficult. The Copenhagen school, existential threat lies in the economic essence of the market economy. Foreign intense competition, restrictions on exports of domestic products, interference in price, exchange and interest rates, difficulties obtaining credit are in the economic sector of threats collection. It is clear that the Copenhagen school, despite massive threats in the economic sector, attributing it to the existential threats and therefore it is not logical for them to become security subjects, But there are still threatens in this section (Abdolahkhani, 2010).

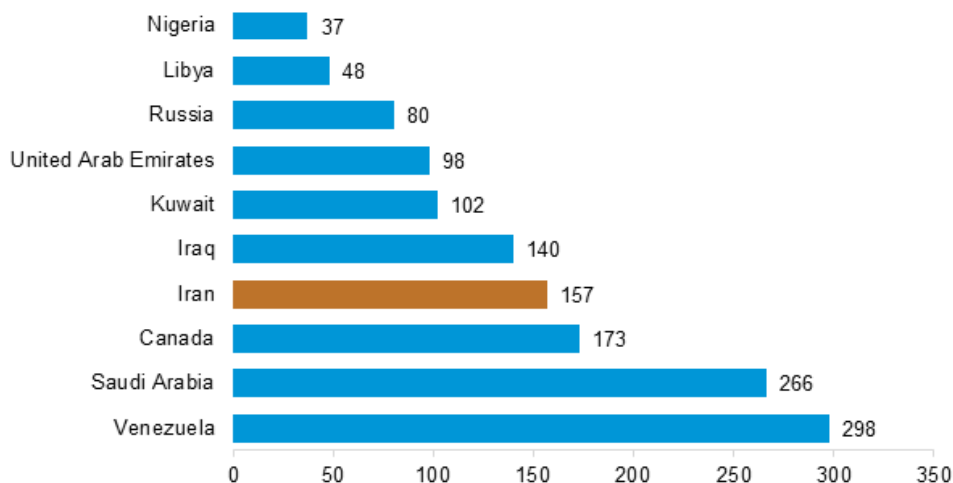
### ***Security Center***

Copenhagen School of Security between four levels (international, regional, state and society) are allowed to communicate interdependence. In this connection, Buzan states: "Due to the construction of the political orientation of governments, international political system is considered the most important habitat countries, In fact, the political relationship between the state and the system is so close that a separate discussion about them is subjected to serious error (Buzan, 1999).

### ***Iran's Position in the Supply of Energy (Oil)***

According to statistics provided by the Oil and Gas Journal in January 2014, Iran's oil reserves are estimated 157 billion barrels this amount equals to 10% of world oil reserves and 13% of OPEC reserves. According to the magazine FGE, 70 percent of Iran's crude oil reserves are located on land and rest on the sea, mainly in the Persian Gulf. Almost 85% of land reserves are based in Lorestan, Khuzestan region, Located in the southwest near the border with Iraq. Iran is facing a decline in oil production capacity. Sanctions and international obstacles has prevents the absorption of foreign capital has led to half of the rate of decline (Figure 1).

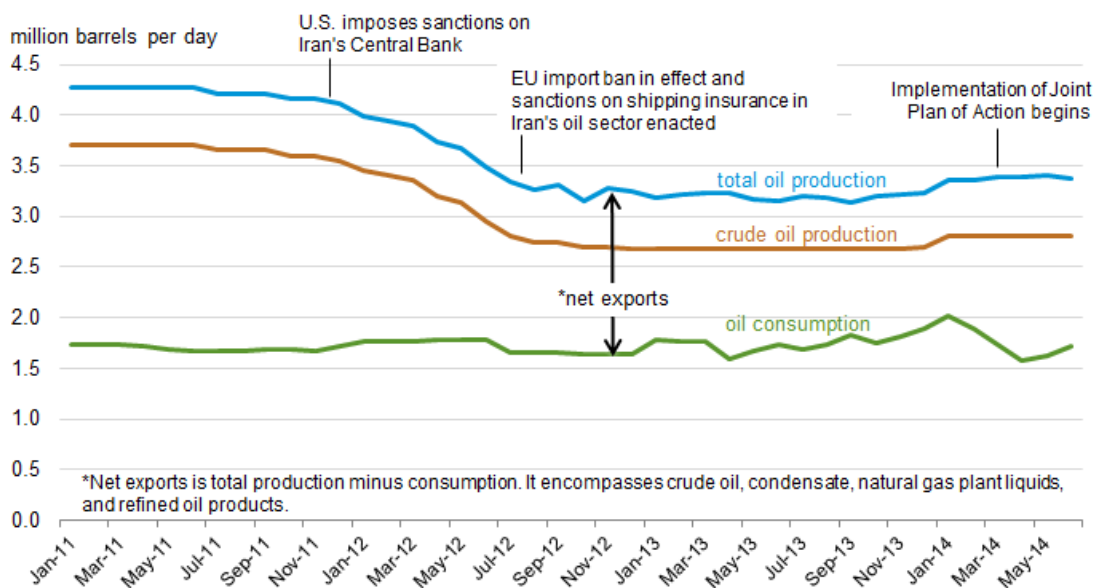
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eia Source: Oil & Gas Journal

**Figure 1: Proven reserves of oil in the beginning of January 2014**

Iran is OPEC's second largest oil exporter after Saudi Arabia, Total condensate production in 2010 is estimated at around 4 million barrels per day of this approximately 3.7 million barrels per day oil output which barely equals to 5% of the total oil production in the world. Since the Iranian revolution in 1979, the combination of factors such as: War, limited investment, sanctions and a high rate of reduction of production capacity in the oil fields of Iran, have Caused failure to return to the production levels of the 1970s. Iran's oil production is expected to be reduced an average 300 to 400 thousand barrels per day. (Figure 2)



**Figure 2: Iran's oil production and consumption in the years 2011-2014**

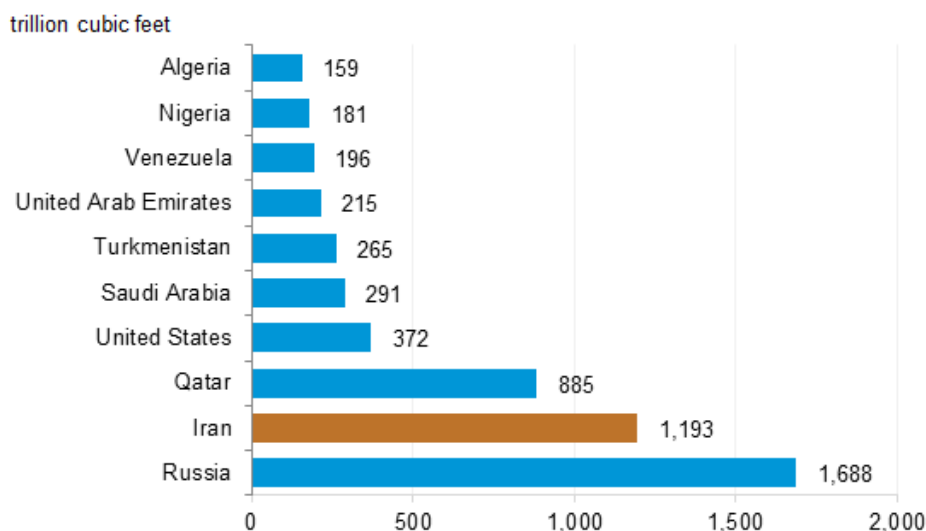
Reference: Oil & Gas Journal

Iran's exports of crude oil of 2.5 million barrels per day in 2011 has decreased to 1.1 million barrels per day in 2013. This reduction is due to sanctions on Iranian oil by the United States and Europe. However, the largest buyers of Iranian crude oil are China, India, Japan, South Korea and Turkey. Iran's oil exports

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increased in 2014. Increasing oil exports in early 2014 between January and May 2014, about 1.4 million barrels per day that 300 thousand barrels is more than the annual average in 2013. According to the International Energy Agency announced, the increase in exports are China and India. In addition, exports of crude oil and gas condensate in 2013 about 240,000 barrels of petroleum products is exported. Most of these products fuel oil and LPG which have been exported to Asian markets. However, exports of petroleum products in 2013 compared to 2011 decreased by 40%. This reduction is caused by cruel sanctions by the United States and Europe union.

According to statistics provided by the Oil and Gas Journal, in January 2014, Iran enjoys 1193 trillion cubic feet of gas and has the second-largest gas reserves after Russia and the largest producer in the Middle East. Iran 17% of proven reserves of natural gas in the world and more than a third of OPEC's reserves (Figure 3).



**Figure 3: Gas proved reserves by category countries; 2014**

Source: Oil & Gas Journal

Iran is the third largest producer of dry natural gas in the world, after the United States and Russia, and has allocated about 5% of dry natural gas production in the world in 2012. In 2012, almost 40% of the gross production of natural gas from the South Pars field in Iran took place. Gross natural gas production in 2012 is amounted to approximately 8.2 trillion cubic feet, which is 3% from last year's show. Production of 8.2 trillion cubic feet, more than 6.54 trillion cubic feet was released to market, and the remainder was injected to enhance oil recovery in oil wells. In the same year, about 5.5 trillion cubic feet of natural gas consumption, which grew by 2% compared to the year before the show. Residential and commercial sectors consume the largest share of natural gas (34%), power generation (28%), industrial (25%), transport (5%) and others (8%).

Production of natural gas from Iran in the past two decades and the consumption of natural gas increased 550% to show much growth. Iran's natural gas exports due to domestic demand growth, even with the operation of the massive South Pars gas field will be limited. ([www.eia.gov/countries/iran](http://www.eia.gov/countries/iran))

### 1.3. Dimensions of Iran's foreign policy in the field of energy

There can be two views on Iran's foreign policy. The first view is based on traditional diplomacy and show more interest to conflict and political concepts and diplomatic attention. Another view in foreign policy is based on energy which of course does not means handing over foreign policy to the Ministry of Petroleum and Energy but a foreign policy and energy diplomacy, especially oil, has the fundamental role.

In accordance with the constitution of the Islamic Republic of Iran, foreign policy priority should consider four categories of countries:

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Neighboring countries

Muslim countries

Non-aligned countries or the third world or developing

Countries that somehow solve Iran's political, economic, military needs.

On the basis of the Foreign Affairs of the Islamic Republic of Iran is in a dominant energy security, several criteria may be of particular importance. The first is that generally the neighboring countries of Iran's are oil and gas producers. Second, The demand for oil and gas, mainly in Iran's relations with the countries that are not free of problems. According to the subjectivity of security from the perspective of the Copenhagen School the issue is within Iran's red lines. Another issue is capacity building in the upstream energy industry. Iran needs to cooperate with international oil and gas companies. Most of these companies are in countries that do not have a strong relation with Iran. Iran would require new investments in its oil and gas industry. Large investments in upstream oil and gas industry are in the hand of the international oil companies.

One of the ways in which Iran could increase its index of national security, according to the foreign policy of energy security. It includes Energy diplomacy, diplomatic missions in support of the country's trade, the financial sector to encourage economic and development goals, including in the energy sector and encourage domestic and foreign investment in the energy sector (Maleki, 2007).

### ***Development-Oriented Foreign Policy Based on the Twenty-Year Perspective***

To establish the position of energy strategy and understand the necessity of interaction between energy and foreign policy of the macro to the micro, we follow logical trajectory in the text of the documents that have determined the orientation of the country in the long run. The most important and to speak only major document in this twenty-year Visions of that describes the 2025 Iranian society: ...Achieving first place in the economy, science and technology in the South West Asia... With an emphasis on software movement and science production, economic growth accelerated sequential, relative improvement in per capita income levels and achieves full employment... A constructive and effective engagement with the world based on the principles of dignity, wisdom and expediency (Perspective Document of twenty years Outlook, 2004).

Twenty-year Perspective Document pays attention to the need for action in terms of soft power as a condition for the success of national development plans, And also pays attention to the key issue which is becoming a regional power in the framework of the rules of hard power, To call other powers that naturally happens in the form of conflict, political tension, conflict, security and military conflict. Iran's response to regional power in terms of hard action, National nature and logic will be a win - loss situation (Moosavi, 2010). This view is consistent with the level of interest in solving the problems facing our government is the Copenhagen perspective. In the words of Professor Seyfzadeh confrontational stance - powerful offensive against the stream, is impossible that only lead to backwardness and passive acceptance requirements (Seyfzadeh, 2005). While becoming the power to influence (in the region) within the rules of the game soft power, will face with responses of public relations and market development by other power; That means that although the opposition will enhance Iran's position in the hierarchy of power, But because of the rule of market relations and dependence on this space, the pattern of this confrontation, becomes mainly on the nature of competition and cooperation, and also becomes non-playoff. Experience of developing countries and emerging new powers are the evidence on this claim.

Based on stated goals Perspective Document, the realization of development is at the top of the macro agenda, So that other national programs should be designed in perfect harmony with it. The nature of each of the goals and visions clearly show that national development should not be at odds with the world or in isolation, but is possible through constructive engagement. Therefore, it is essential that the necessary link with the existing soft power to realize goals and visions for the country's power-driven development environment to be created. Development-oriented foreign policy priority is to conduct policy-based soft power; so that through such interactive international environment compatible with the country on the path of development and facilities necessary for the state to attract international system (Moosavi, 2010).



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Emphasis of the vision on national development and achievement through the interaction between international and national level, indicates Copenhagen assumptions about national security and the relationship between international and national levels. The link between Iran and the international system is energy that it will be discussed further below.

#### ***Iran's Energy Strategy from the Perspective of Development-Oriented Foreign Policy***

Energy as the most important connection point our country in the international system and yet One of the most influential factors affecting domestic welfare and national development plans has the potential to become the opportunity for interaction and cooperation with the international system. Following this interaction, in addition to the positive international role, the urgent needs of the energy industry, new technologies, foreign investment and stable markets must be provided; because otherwise our country will soon become a major consumer and a net importer of energy (Stern, 2007).

Exactly on the same basis is essential that not only our international orientation and behavior in the energy sector on the basis of a comprehensive strategy be developed, But also this strategy must be consistent and full interaction with the foreign policy objectives of developing and twenty years perspective and follow that. Once more it becomes clear when we consider the need for energy strategy note, energy with its dual nature in the field of security is hard power and soft power is placed in the area economically. In this regard, two different views on the issue of energy strategy and its functions is in a more macro level ruling the dominated thinking of Iran's foreign policy (Moosavi, 2010).

The first perspective sees energy policy in the form of power-driven approach in national security. This view is clearly based on realistic assumptions of international relations that consider Sustained international cooperation in various areas impossible and knows any cooperative link between temporary and very fragile state. This approach is more strategic interest to security through the acquisition and retention of power in the context of a zero-sum believes (Rooshandel, 2005). In this context, any nation, even to the detriment of other nations must increase their power, to provide for their security (Lotfian, 2005). The great powers are often able to form a coherent and logical relation of the main elements of the national security (Azghandi and Rooshandel, 1995).

Adherents to this view, with a narrow-minded attitude, see Energy as merely a means of threat and deterrence and from this point of view energy use is limited and is used in controversial areas. This is the attitude that knows oil as weapon (Shafaii, 2010).

The second view is influenced by the attitude of international security And believes that the security of the nation depends on improving the security of all people (Lotfian, 2005). It is based on Copenhagen principle of interdependence security.

This is the favorite view of economists considering the globalization of the economy, understands Energy market as well as an integrated market which supplies its security through cooperation of all parties on the basis of win - win. Fans of this attitude in the country believe that for considering the prospects for national development in Twenty-year prospect, In the energy sector should be adopted at the same time thinking of cooperation and competition play a positive role as powerful actors in the field of energy security. It seems that the twenty-year Perspective Document with respect to its development goals is closer to the pattern of international security and deterrence positive energy in the form of action in terms of soft power.

In other words thinking of the Perspective Document and objectives of our energy strategy also requires us to prevent from Moving on the path of confrontation in hard power which only conceives energy as Threat and deterrence negative (Shafaii, 2010).

#### ***Practical Politics of Iran in the Field of Energy***

##### ***Caspian Sea Region***

The major challenges in the Caspian Sea are as follows:

Geopolitical Energy

The legal regime of the Caspian Sea

Territorial disputes

Environmental considerations

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### **Geopolitical Energy**

It should be stated that exploration and extraction in the Caspian Sea so far is performed only by large companies that can tolerate high risk. Caspian oil is very expensive in the exploration, development, extraction and transport. Also appear to only five major fields in the Caspian Sea and the economy. Three reservoirs that were discovered previously called Nagorno Chgnk, Tengiz and Azeri - Guneshli - was recently discovered light as Haygashghan and Shah Deniz (Maleki, 2007).

The three major factors of oil production in the Caspian Sea are:

The price per barrel of oil should not be less than \$ 50

Political disputes do not happen in the Caspian Sea

Create the infrastructure. (Adams, 2001)

Unfortunately, in the exploration and extraction of oil and gas in the Caspian Sea, except for the participation of ten percent in the Shah Deniz gas project in Azerbaijan workbook is empty.

#### **B- The legal regime of the Caspian Sea**

It has been more than two decades past from Soviet Union collapsed yet still countries in the Caspian Sea region are unable to agree on a legal regime of the Caspian Sea littoral states. What will the future of the Caspian Sea be? This is a question that has preoccupied the minds of most experts in this area. Generally several categories in this communication are counted:

First group, are the views based on tension and chaos in the future of the Caspian Sea.

Second group, are comments that bypasses the theory that the Caspian Sea has a unique position and can totally affect other parts of the energy resources.

Third group, are those who believe that oil and gas resources of the Caspian Sea, But these sources are not more than three per cent of world energy resources, and a comparison between the importance of the Caspian Sea and Russia, for America is more appropriate to deal with Russia.

Given the decline of importance in terms of energy and geopolitics in the Caspian Sea after the recent developments in Afghanistan and Iraq (Which is a separate debate) According to the common regime in line with the interests of Iran in the Caspian Sea. In this way it is the best way for Iran to expand its relations with all the countries around the Caspian Sea. This approach seems reasonable solution within the framework of the Copenhagen to deal with the problems faced by the interdependence of security.

### **Territorial Disputes**

Despite the bitter results of the remaining multilateral agreements with Russia, Azerbaijan, Turkmenistan and Kazakhstan should be noted that no agreements other countries can be condemned long as it doesn't harm the national interests.

#### **D- Environmental considerations**

Environmental considerations are also significant. On the one hand, limitations due to climate change would limit the development of renewable energy that this helps to delay its ending. And on the other hand, environmental policies would make energy contribution more expensive of each product which is produced (Maleki, 2007).

### **Areas of Central Asia and South Caucasus**

Iran's foreign policy in the South Caucasus in the field of economic cooperation and integration and functional, especially energy and transport. Iran define security in a positive way which means appropriate conditions for national interests, functional and economic cooperation and integration with the countries of the Caucasus as one of the key elements for peace and safety of the region (Morgan, 2002). So from the early days of independence of the Caucasian countries tried for establishing and developing economic relations with them in context of Bilateral or multilateral cooperation. So Iran's energy strategy in this area is in accordance with the solution of regional interdependence is by the Copenhagen view.

## **CONCLUSION**

About Islamic Republic of Iran strategy it should be stated that Iran theoretical approach within twenty-year perspective, is to achieve first place in the region in terms of technological, economic energy which

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is in Copenhagen solution. To achieve this objective, realistic politics go together with cooperation with relevant countries in this area seems essential in the context of soft power. But in practice it can be seen that the Islamic Republic has used power as a tool and in this context acts in hard power region. The formation of sanctions on Iran as evidence to this claim. Although Iran leaned its policy towards India Pakistan to offer energy that this solution is also based on Copenhagen solution. So the theory and practice non-compliance strategy in energy matter has cause causing a lack of foreign investment needed and that causes erosion of infrastructure in energy sector and underdevelopment in this field from one point and lack of development in energy field which is caused by lack of movement toward the twenty years visions from another. In turn improve Iran's position has not been followed in the international hierarchy of power in Iran despite international status. So that we are witnessing our country's fall behind the development procedure to achieve the goal of twenty years vision as the neighboring countries continue to prosper in the region.

## **REFERENCES**

- Abdullah Khani Ali (2010).** *The Theory of Security* (the Institute of Contemporary Abrar contemporary Tehran).
- Adams Terry (2001).** Caspian Oil Realities. A Briefing Paper; Royal Institute for International Affairs; London: September.
- Anceschi Luca (2006).** *Turkmenistan's Foreign Policy: Positive Neutrality and the Consolidation of Turkmenistan Regime* (London and New York, Rutledge).
- Barry Buzan and Weaver Elly (2009).** *Regions and Powers*, translated by Rahman Qahraman Pour (Institute for Strategic Studies, Tehran).
- Bayulgen Oksan (2009).** Caspian Energy Wealth; Social Impacts and Implications for Regional Stability. In: *The Politics of Transition in Central Asia and Caucasus*, edited by Wooden AE and Stefes CH (London and New York, Rutledge).
- Bellany Ian (1981).** Toward's Theory of International Security. *Political Studies* 29 1.
- Blank Stephan (2003).** The Russian-Turkmenistan Gas Deal Gone Away. The Central Asian-Caucasus Issue of the CACI Analyst.
- Bulverdey Majid (2006).** Review of bilateral relations, Iran and Turkmenistan. *Central Asia and Caucasus Studies Journal* 56.
- Damanpak Jami M (2009).** The Islamic Republic of Iran's economic diplomacy in Central Asia, Tehran CIA and International Studies
- Dehqani Firouzabadiand, Syed Jalal and Moradi Ayyat (2010).** The foreign policy of the Islamic Republic of Iran in the South Caucasus", and Eurasian Center for Iranian Studies, Issue VI, spring and summer
- Desse David A and Joseph S Nye (1980).** *Energy and Security* (Ballinger Publishing Company).
- Farhad Atai and Azizi H (2010).** The Role of Energy in relations between Iran and Turkmenistan. *Journal of Political and International Studies* (3).
- Goudarzi M (2009).** Energy geopolitics of the Caspian Sea and the importance of Iran (2008-1991). *Central Eurasia Studies*, No. 5
- Haftendorn Helga (1991).** The Security Puzzle: Theory – Building and Discipline – Building in International Security. *International Studies Quarterly* 35(1).
- Jan H Kalicki and David L Goldwyn (2005).** *Energy & Security toward a New Foreign Policy Strategy* (Woodrow Wilson Center Press) 9
- Lord Cast (1923).** *Confidential State History of British Policy 1783-1919* (Cambridge: Cambridge University Press) II.
- Lotfian S (2005).** Strategy and strategic planning, Tehran, Political and International Studies Office.
- Maleki Abbas (2010).** Energy security, Iran and the Caspian Sea issues. *Journal of Central Asia and the Caucasus* 70.
- Martin Laurence (1983).** Can There is National Security in an Insecure Age? *Encounter* 60 3.



### Review Article

**Morgan Patrick (2002).** *A Collection of Regional Security and Order, Lick David Vpatryk David, Order of Regional Security in the Modern World*, translated by Seyyed Jalal Dehghani, (Tehran, Institute for Strategic Studies).

**Mousavi Shafaii M (2010).** Synergetic interaction between energy policy and foreign policy. *Journal of Political Science*.

**Olcott Martha Brill (2006).** International Gas Trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan. In: *National Gas and Geopolitics from 1970 to 2040* (New York: Cambridge University Press).

**Rahimi Gholam Ali (2007).** Iranian Gas Industry: Current Status and Prospects. *Mahnanh Political and Economic Information* **22** 241-242.

**Roberts John (2003).** Caspian Oil and Gas; How far we come and where are We Going. In: *Oil, Transition and Security in Central Asia*, edited by Cummings SN (London and New York, Rutledge).

**Rooshandel Galilee (2005).** *National Security and the International System* (Tehran, Samt publication).

**Rothschild Emma (2007).** What is Security?" In: *International Security*, edited by Barry Buzan and Lene Hansen (Sage Publication) **II**

**Saifzadeh Seyed Hassan (2005).** *The Foreign Policy of Iran* (Tehran, Mizan publication).

**Sajjadpour Mohammad Kazem, Shahabi Sohrab, Massoud Ghaffari and Sadeqi Shams al-Din (2011).** The new structure of international political economy and geopolitics of energy: The case of the Caspian region. *Political and International Approaches* **28**(winter).

**Shafie N (2003).** Geo economy gas pipeline from Iran to South Asia and its security implications. *Journal of Defense Policy* **11**(42).

**Sterne Jonathan (2009).** Future Gas Production in Russia, Oxford Institute for Energy Studies. Available: <http://oxfordenergy.org/pdfs/NG35.pdf>

**Tohidy Omolbanin (2007).** *Pipeline of Peace: Dimensions and Interests* (Strategic Report and Strategic Research Center) Tehran.

**Ullman H Richard (1983).** Redefining Security. *International Security* **8**(1).

**Umbach Frank (2005).** Nuclear Energy Issue-Global Dimensions and Security Challenges, DGPA

**Visions of twenty years (2004).** The Secretariat of the Expediency Council, spring

**Weaver Ole (1988).** Security, the Speech Act. unpublished manuscript.

**Weir Erin MK (2003).** NEP to FTA: "the Political Economy of Canadian Petroleum Policy in the 1980s (University of Regina, 2001) 2. Available: <http://www.web.net/pef/eweir.pdf> [Accessed on 1 April 2003].