

# RELATIONSHIP BETWEEN ENERGY DEPENDENCE AND NATIONAL SECURITY: THE CASE OF TURKEY

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**Abstract-** As it was in the past century, also in 21st century, the most crucial issue that the world countries put emphasize is the energy. The reason is that the technology is developing incredibly fast and as a result is making the humanity more dependent to energy. Energy is one of the most basic needs of social and economic development of the country. Particularly, the states struggle to find the energy, which has become an indispensable input for sustainable economic development by using uninterrupted, safe, clean and cheap methods and also in order to ensure the supply security, they work hard to diversify their sources. In this study security and energy issues are discussed based on interdependence approach of Keohane and Nye. We concentrate on Turkey's energy relations with countries that have energy sources. It is elaborated that these countries have potential to influence and determine energy strategy of Turkey. In the study, Turkey's energy dependency and economic relationships with the countries which have energy sources in respect of national security are reviewed. Turkey has been taking three out of four of the energy it consumes from import and has the possibility of getting influenced from negative developments in energy area. In the study, an analysis has been made about the subjects of Turkey's energy actor role being strengthened against these negative situations for protecting its national security and providing and strengthening interdependence with regional energy actors.

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**Keywords-** Energy, Interdependence, Energy Security, Turkey,

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## I. INTRODUCTION

It is seen that source owner countries and the countries importing energy have different views in respect of energy security. The factors such as demand for the energy, the price of the sold energy and the fact that whether this price is in the level that may allow making new investments, the fact that whether a production can be implemented in a level that could meet the demand and the reliability of the transit countries are evaluated within the scope of energy security for the countries which own energy sources [1].

There are generally two different approaches to the term of energy security. One of these approaches concentrates on energy, and the other on security. The definition that focuses on security means the physical protection of facilities in energy searching, development, production, transmission, cycle, distribution, marketing and consumption network against all kinds of ill-disposed attack. The definition that focuses on energy means to provide quality and environmental friendly energy in sufficient amount with reasonable prices and without interruption [2].

Politicization and securitization of energy is closely related to the degree of sensitivity and vulnerability of interdependence. Sensitivity interdependence is defined as the degree of responsiveness within a policy framework, which focuses on how quickly the changes in one country bring costly changes in another and how great these costly effects are. Vulnerability interdependence is, however, related to the affordability of, or availability of alternatives under the cost imposed by the changes in one country [3].

For Keohane and Nye, sensitivity interdependence and vulnerability interdependence are the main determinants of actor decisions related to the cost of interdependence. Being aware of sensitivity interdependence or rapid rising sensitivity leads to politicization of issues and a search for new alternatives, while the actual decision of the actor on the future of interdependence (whether or not it is necessary to take counteraction for relieving oneself from the cost imposed by the interdependence) is taken by considering vulnerabilities. Counter-action may be in the form of use of force, though its efficiency is limited in non-military issues, attempt for regime change or change under the existing regime [4].

Turkey is located at the crossroads of energy in the middle of five seas. In regard to this, this position makes Turkey an indispensable energy corridor between the two regions of energy production and consumption. Turkey is located in a region that holds 72% of the world's proven gas reserves and 78% of proven oil reserves. Countries to the west of Turkey consume 50% of world's oil and natural gas while countries to the east produce 70% of world's oil and natural gas. The limits of Turkey's domestic energy sources in light of its growing energy demand have resulted in dependency on energy imports, primarily of oil and gas Turkey aims at fully utilizing its indigenous hard coal and lignite reserves, hydro and other renewable resources such as wind and solar energy in order to meet the demand growth in a sustainable manner [5].

Oil exploration and manufacturing activities have also been operated in Turkey even if these amounts are not sufficient to meet the oil demand. According

to the statistics of Turkish Petroleum Corporate (TPAO), 2.3 million tonnes oil has been manufactured in Turkey. Accordingly, 9 % of oil demand of Turkey has been met from local production [6].

## II. DETAILS THEORETICAL FRAMEWORK

This study analyzes energy dependency and national security relationship by using Keohane and Nye's interdependence approach. First, interdependence approach is referred as the theoretical framework of the study and Turkey's energy dependency and national security relationship is analyzed in the related sections. Study is a qualitative research carried out by using the information in the books, articles and on web pages of official bodies, and other digital data about the subject.

In the interdependence approach of Nye and Keohane, it is seen that three column structure consisting of development of technological means, the fact that military energy not being sufficient alone today, and priority hierarchy changing in international relations has been felt in commercial and energy relations of the countries by coming into prominence in international relations. If the interdependence is disrupted, it is mentioned that the result of both parties having damages is one of the main aspects of the theory. However, it is a fact that, in both approaches, interdependence approach of the actors in the global world remain on the agenda and they are dependent to each other more.

Based on the hypothesis of connection between energy dependency and national security, the direction of this effect has been determined. For the purpose of introducing the said relationship perceptibly, Turkey is studied as an example.

For this purpose, hypothesis stated below shall be tested in the study.

1. When the countries import energy from the countries that they are dependent in the subject of energy draw up mutual agreements and partnerships in economy, these form a interdependence and strengthens economic stability of the countries and positively influences their national securities.
2. If Turkey increases its cooperation with the countries which produce and consumes energy and especially can use its natural bridge position between energy sources and energy markets as a hub in respect of various energy sources, it minimizes energy dependency and strengthens its national security.

## III. RESULTS AND DISCUSSION

Energy is a measurement of economic and social development of countries and also has an indisputable

priority in both human life and economic activities as the most basic human requirement. Today energy has so much importance that it appears before us as the most effective determinant of the economic, social and geographic order in the global scale as a strategically commodity which directs the world politics. The fact that in what conditions the energy is obtained or the problems in its supply directly impacting competition in national and international level, shaping production structures of the countries, influencing budget balances and being one of the basic determinants of external deficits makes the subject of energy one of the most important agenda subjects of the world [7]. For the sake of providing energy security, variations must be implemented in respect of energy sources and security of the regions in which energy sources are extracted or produced, reserves must be stored and international cooperation and the security of the transportation lines must be enabled.

**Table I: Turkey Energy Dependence[8]**

Source of Energy	The Amount of Imports	World Ranking
Natural Gas	45 billion cubic meter	5.
Oil	35 million tones	13.
Coal	30 million tones	8.
Petroleum Coke	4 million tones	4.

It is seen that Turkey provides three out of four of the energy consumption from external sources. In 2012, energy import amount has been around 60 billion dollars and Turkey has been consuming 98% of the natural gas, 92% of the oil and 80% of the quality hard coal by import. When we evaluate this situation in respect of energy security, it is understood that it is a high risk. Developments must be made in subjects such as increasing natural gas storage capacity, improving LNG terminals and proceeding on the subject that the gas being provided from these terminals into natural gas substructure in respect of providing energy security. It is seen that conflicts and problems experienced in the geography in which Turkey is located impacts the energy security of Turkey and it is understood that this situation may have a negative influence on national security of Turkey. Thus, taking in partnerships in regional natural gas and oil production and distribution projects and actualizing nuclear energy projects are important for Turkey which is dependent in respect of energy.

When we evaluate Turkey in the basis of countries from which it implements energy import activities, it is clear that it is dependent on Russia and Iran from which it implements natural gas import activities. This situation will decrease by Turkey being one of the big partners in energy projects and used as a

energy headquarters and provide an increase in interdependence. In recent years, natural gas import from Azerbaijan and TANAP project are seen as developments that explain this situation.

When we evaluate based on oil importing countries, Turkey, as a country importing 97-98% of the oil amount, is dependent to Iran, Russia and Saudi Arabia in this source. However there has been a variety of countries to a large extent in recent years in oil compared to natural gas. Crude oil import has been increased with Iran and Kazakhstan, and crude oil import has been decreased with Russia and Saudi Arabia. Russia and Colombia mostly come to the fore in respect of coal import. USA and South Africa come next. Country diversity has been increased in this source type as the same.

Turkey which develops economic and commercial relations with each of these countries wants to strengthen its own energy security. It seems that Turkey has a positive impact on energy security by bringing interdependence into the forefront more than a unilateral dependency in relations. Thus, Turkey must be closer to energy sources which it needs by making partnerships in energy area with these countries, which obtain more than half of their export activities from energy sources, and must have a voice in managing and transmitting these sources. It is seen that this situation may have a positive contribution in providing the security of Turkey.

When we look at the Turkey-Russia relations beginning with natural gas purchase agreements, it is seen that both Turkey and Russia benefit from this cooperation and are prevented from entering in a direct conflict environment as mentioned in interdependence term. Turkey's high levels of dependency to Russia in the subject of natural gas and the fact that Russian natural gas not being able to transferred to other countries show that this dependency generally proceeds unilaterally and it is a fact that Russia will not give up the income that it obtains as the result of natural gas sales to Turkey. It is mentioned that both countries mutually dependent to each other. When we look at the situation in respect of sensitiveness and response, we can say that there is a situation on behalf of Russia.

One of the attention-grabbing points in respect of interdependence is the nuclear energy station business which is planned to be constructed in Mersin, Turkey by Russia. The fact that Turkey giving nuclear energy station project to Russia while being dependent to Russia in respect of natural gas around 60% increases the interdependence of them and manifests itself as a situation that protects the interest of both countries. It is said that if this project is interrupted, this will affect both parties negatively.

The fact that, in the point of decreasing energy dependency, having contributed in production and distribution projects of the sources in the energy

source countries has an importance in respect of Turkey. Pipelines, natural gas agreements make the countries more dependent to each other. It seems that if Turkey accelerates the projects which will organize energy relations with other countries for diversifying energy provision sources because of its need, this will be important in respect of economic stability and national security. In the end, strategic importance of Turkey in respect of these countries will increase and Turkey will add different countries to its energy source range.

If dependency in the energy is not managed well, it is known that possible negative impacts of it will damage economy and national security. Negative impact that may occur economically manifests itself in political, military, diplomatic, and cultural areas. This does not comply with national independence and sovereignty and reveals itself as a situation that weakens the countries. Turkey must establish a source diversity in energy and end the dependency to only one country, that is Russia, in natural gas and in the provision of this source. Strategic planning must be implemented in this area by having an integrated energy policy and Turkey, which is poor in respect of oil and natural gas amongst fossil fuels, must procure the energy it needs from those and do business as having a say in production or transmission of these energy sources available in its neighbors.

## CONCLUSIONS

As a result, Turkey, which is dependent to the outside in respect of energy sources, is under a security threat because of the conflicts surrounding it. When we look at this situation in respect of economy and military, it has the potential of affecting Turkey's economic security directly and indirectly, and military security directly.

Developing partnerships and projects with the countries which have the sources is important to eliminate negative effects that occurred or may occur by the dependency of Turkey to oil and natural gas and to provide national security. The fact that, in recent years, Turkey being one of the leading energy players while rising to prominence as play maker with its efficient strategies in international arena gains momentum with energy partnerships and projects that it carries out or designs. Turkey reveals its determination in this area by developing strategies that could strengthen its position of being energy headquarters and establishing partnerships. In our study which consists of interdependence approach of Koehn and Nye as theoretic framework, the countries with which Turkey has energy relations have been evaluated and as the result of this evaluation it has been seen that the partnerships in the area of economy and energy have positive contribution to national security of Turkey.

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