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CYBERSECURITY IN THE ENERGY SECTOR AN ANALYSIS ▪ ENERGY AS A FINANCIAL SOURCE FOR TERRORISM ▪ **POPULATION MOVEMENTS DUE TO CLIMATE CHANGE AND THEIR POLITICAL CONSEQUENCES** ▪ ENERGY AS A GAME CHANGER FOR TURKEY IN GLOBAL DYNAMICS & THE NEW ENERGY UNITY ▪ **ENERGY SECURITY THREATS IN THE MEDITERRANEAN WITH MARITIME DELIMITATION DISPUTES: TURKEY VS "CYPRUS"**

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Cybersecurity in the Energy Sector An Analysis

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1. Introduction

In the New World Order of the 21st century, the information age has revolutionized our lives, shrunk distances, and made societies more interdependent. Cyberspace and its underlying systems emerged as domains of profound influence on defense doctrines with the advent of communications technology, proliferation of the Internet and networked devices so-called the "IoT" (The Internet of Things). Virtual warfare, waged via computers and the Internet, became an essential aspect of military conflicts between adversaries, as the operation and management of warfare in the future has begun to change.[1] To policymakers, possession of fastest computers is as crucial in the 21st century as possession of longest-range aircraft was in 20th century. Just as airpower had transformed battle scenes back then, the military utility of cyberspace has risen with diffusion of asymmetric warfare, which, in essence, is the goal of a war: One side will inevitably want to dominate over the other and make the balance asymmetric.[2] As a form of smart power, cyberpower emboldens low-profile actors, decreases threshold of turning points in crises, and multiplies kinetic power's impact. Since the very orality of the Internet has a way of turning territorial battles into battles of ideas,[3] transformation of modern battles utilises de-territorialised cyber attacks as means of persuasion and winning hearts and minds on a mass scale.[4] In the information age, what's important is not just "whose army wins in battle, but whose story wins over people".[5]

News headlines highlight incidents about private firms, government institutions, agencies, and critical infrastructure as frequent targets of increasingly sophisticated cyber weapons and techniques utilized by criminal organizations, state-sponsored terrorist, belligerent non-state actors, as well as national armed forces. Depending on an assailant's motivation and desired impact on the target, malicious activities on cyberspace aim to subdue victims through data loss, financial gain, espionage, damage to commercial, physical assets, and disruption of supply chain, transportation, communication, and geo-location systems. Political actors are targeted during election campaigns through perceptual manipulation of public opinion over ads, spam, spoofing, and phishing attacks through cyberspace. The real power of cyber is in fact its potential cascading effects on other domains. Since it enables a strike directly and immediately aimed at the seat of the opposing will and policy, it diminishes the decisiveness of major wars.[6] Missile tests, nuclear detonations, and advanced Artificial Intelligence (AI) platforms precipitate cyber responses that may spiral into a full-scale conflict in high-risk profile regions.

Energy sector, inevitably, is among the most frequently targeted critical service fields in the world. Vengeful acts of malware attacks on the Persian Gulf's energy sector,

sabotage attempts on chemical plants in Saudi Arabia, blackouts in Turkey's electricity grid, and hacks against the U.S. infrastructure are on everyday news headlines. Increased threat level on energy sector has ramifications on water, sewage, health, and communication services,[7] putting more pressure on governments and companies to scrutinize security of their IT network hardware, keep software up-to-date, encrypt information and train their staff on best practices on cyber space. Moreover, the advent of blockchain technology incentivized peer-to-market and peer-to-peer transfer of energy assets that requires secure, scalable, and efficient methods to ensure operability and adoptability. Distributed ledgers are vulnerable to cyber attacks if proper security measures and practices are not observed, the key being people skills and awareness to keep risks under control. Recently, the future of the JCPOA to curb Iranian nuclear ambitions fell into uncertainty due to the U.S. threat to pull out, leaving the Middle East once again as a playground for escalatory tit-for-tat moves. It is fresh in memories how nuclear facilities became a target of malware attacks and yet the extent of catastrophic consequences that it could have unleashed is still not fully conceived. This opaque, behind-the-scenes type asymmetric warfare is the most dangerous of all kinds since previous notions of deterrence do not necessarily provide adequate safeguards to prevent escalation.

2. Cybersecurity and Hybrid Warfare

For 400 years, those who possessed the greatest power in the global commons, especially at sea, have been able to exert dominion over those who do not. Cyberspace, on the other hand, appears to empower challengers to resist against hegemony.[8] Insurgents, armed groups, terrorists, political fractions of all sorts can exploit vulnerabilities of nations states by using "hacktivist" techniques to further their cause and undermine the global order.[9] Above all, cyberspace has the potential to promote social and political change, as seen by the transformative effect of social media on politics in the Middle East and North Africa, and furthermore to "alter the configuration of the global commons".[10] The Internet is the new battlefield, social networks are the weapons, and states, non-state actors, and citizens are its combatants.[11]

Cyber warfare may not resemble conventional war but damages can be as crippling. Perhaps most importantly, since cyberspace is ubiquitous, it affects all aspects of life, rendering it highly unlikely that future conflicts will unfold in exclusively one domain. Due to its low buy-in cost and as a multiplier of physical force, cyber warfare can generate "catastrophic cascading effects through asymmetric operations".[12] A cyber attack can target a nation's "nervous system"[13] behind the protective barriers of physical battlefronts, and as such, its principal goal is to persuade and subdue the enemy through strategic communication without fighting, thus framing a conflict in an ideologically advantageous way that enables direct influence over societies.[14] Iran, for instance, uses a mix of threats and forces to employ intimidation as a form of asymmetric warfare.[15] A cyber espionage group linked to the Iranian government recently attacked energy, military, and aerospace targets in Saudi Arabia, South Korea, and the U.S.[16] A war does not necessarily involve conflict, and, as Sun Tzu says in his famous work "The Art of War", Iran's aim is to win the war without fighting the war.[17]

In hybrid wars, states and non-state actors blend high-tech capabilities, like anti-satellite weapons, cruise missiles, and Intercontinental Ballistic Missiles (ICBMs) with terrorism and cyber warfare.[18] Russia allegedly uses disinformation and propaganda in synch with cyber attacks and military show-down against Baltic states, Finland, and Norway.[19] This emerging form of warfare includes the entire society and necessitates a comprehensive escalation strategy to integrate vulnerabilities into a robust security infrastructure for effective crisis management. This is a complex world of confrontations and conflicts rather than one of war and peace.[20] In non-traditional, irregular warfare, "netwar" as a form of low-intensity cyber warfare suits the definition of cross-domain warfare in the 21st century. Empowered non-state or sub-state actors utilize cyberspace to organize their constituents and challenge central authorities of nations. ISIS, for example, uses cyberspace as a propaganda platform to shape the "information environment" of conflict[21] and gain public support, enabling it to wage a leaderless warfare. This distinct strategic character and concept of operations[22] necessitates an inter-agency connected specialist counter-terrorism task force suited for cyber defense with a flat, de-centralized structure to increase crisis response agility.

Regrettably, prospects for defense against cyber attacks are not good. Firewalls can be breached, people can be exploited, and systems can fail to detect intruders. Open societies such as the U.S. have promiscuously networked their systems in ways that make it very difficult to disconnect from the Internet.[23] Despite earlier warnings from Israel to its U.S. counterparts,[24] Russian state-sponsored hackers were able to conduct cyber espionage on the NSA material from a contractor's laptop through Kaspersky Lab's ant-virus software.[25] Cyber arms are easily found on the dark web or off-the-shelf. If insurgents can use the tools of globalization against itself and can cross all of the organizational boundaries, so must the defense systems: There is need to have a holistic approach to cyber defense.[26] The goal is to pro-actively build capabilities to be superior at each level of escalation in crises across domains and boundaries. With this goal, the U.S. Department of Homeland Security, for instance, aligns agencies for new types of crises including cyber attacks to minimize the impact of "unknown unknowns" while fostering organizational development of national crisis management. Following the attack on NHS in 2017, the UK has increased funding for GCHQ to make it a "cyber-organization" as much as an intelligence and counter-terrorism one.[27] Similarly, the first EU ministerial-level cyber exercise conducted in Estonia was based on a fictional scenario that "moved from a minor cyber incident up to a real blockade of communications systems that stopped a naval operation on the Mediterranean."[28]

3. Crisis Management in 21st Century Warfare

Crisis management in statecraft is the art of using time and space to advance one's gains,[29] especially by turning dangers into opportunities. It takes place at a crucial time during when there is high probability of hostilities due to perceived threat to vital interests. How a crisis may unfold, escalate, and whether it can be prevented are of prominent concern for the pre-crisis phase. Deterrence is of crucial importance to prevent escalation of crisis and cybersecurity has a large role in crisis management. In this re-

gard, escalation dominance is an indispensable and desirable aspect of successful crisis management, which can take kinetic form, with armed forces, or non-kinetic form, with cyber weapons that serve as a platform of attacks on information systems. In pre-crisis phase, cyber escalation as a basis for cyber deterrence becomes much more salient.[30] As sophisticated cyber threat actors are ever growing, North Korea, for instance, has acquired capabilities to attack the South prior to testing its new arsenal of nuclear weapons and missiles. Pyongyang has the cyber power to incur as much damage as possible against military, infrastructure, and industry complexes in a conflict situation, and frequently does cyber reconnaissance to prepare for war with the South. If it breaks out, during war time, North Korea may launch cyber attacks,[31] and as a response the allied cyber command can provide means to penetrate, disrupt, and corrupt North Korea's networks.[32] Cyber capabilities can give the U.S. Navy Seals the advantage on the ground, ensure that satellites have the most accurate positioning for a laser-guided missile attack, and respond to domestic civil unrest in the South.

Essentially, escalation and de-escalation of 21st century crisis can take place across all domains of warfare: Land, Sea, Air, Space and Cyber. In cross-domain warfare, the platform in which the attack is launched and where its effects are felt may be different. Firstly, anonymity and intangibility of cyber attackers are undermining factors against efforts to prevent crisis from turning into war. At the onset of a crisis, with the identity of cyber attackers possibly unknown, making retaliation difficult, elusive decision-making may lead to escalation of hostilities.[33] An effective means to deter a major war may prove ineffective.[34] Secondly, cross-domain escalation resembles horizontal escalation in that one side has a perceived advantage over the adversary, although, unlike horizontal escalation, crossing a geographic threshold may not necessarily be a pre-requisite to be considered as an escalatory move. During Korean Missile Crisis, the U.S. had a military advantage around the Western Pacific whereas North Korea had an advantage around the peninsula: Taking positions and showing of capabilities was a potential horizontal escalation from Korea to the Pacific, but it does not need to involve use of physical force. Cross-domain warfare is characterized by effects-based operations: if intended consequences of a particular type of action within a domain unfold in a different domain, it makes possible to realize synergies between domains. Kinetic attacks against cyber facilities or cyber attacks against kinetic weapon systems highlight the relationship between kinetic and non-kinetic forces with regard to crisis escalation.

As for the energy sector, on one hand, nuclear plants in the U.S. operate on high assurance environments, monitored, maintained and isolated from the Internet against cyber threats. North Korea or Iran may not be able to attack a U.S. aircraft carrier but may do so to those facilities that enable these systems to destroy intended targets,[35] such as the GPS satellite network. Indeed, it is possible that cyber attackers might have engineered the collision between the U.S. Navy ship USS Fitzgerald and a container ship off the coast of Japan via an intrusion on the networked control system and disruption to GPS navigation.[36] On the other hand, Israel may not be able to preemptively attach an Iranian nuclear enrichment facility with kinetic force at peace time but may exploit security loopholes to penetrate cyber defenses and inflict irreparable damage upon critical infrastructure. The weakest link in such a case often proves to be human-error rather than processes or the technology. Of special worth to note is that Dubai utilities company

DEWA has launched the world's first autonomous, renewable energy utility offering Artificial Intelligence (AI)-powered digital services, as an exemplary case of a disruptive business model that requires greater attention to emerging technologies, vulnerabilities, and opportunities for cybersecurity. The city is fast evolving, embracing futuristic technologies, and hosted the world's first AI show in April 2018 amid smart city ambitions.[37]

Crisis readiness in cyber warfare requires acute awareness of potential vulnerabilities, ability to pick, analyze, and act upon the right information and inter-agency coordination. Tackling with cyber aggressors should not be left only to capabilities of IT professionals, who are more common, but rather involve people with diverse skills and backgrounds to make sense of vastly increasing amounts of big data through the proliferation of social networks.[38] Using simulations, crisis gaming, and imagination[39] can help connect the dots, increase agility, and facilitate cyber threat assessment. During the 9/11 attacks in New York, there was a need for the Federal Aviation Administration (FAA) to ground all flights within the first few hours, which could be facilitated by a cyber swat team. Post 9/11, the U.S. and its allies deployed a variety of military capabilities with the intent to destroy terrorists and those who harbor them. As an escalatory option, it included the policy of pre-emption based on actionable intelligence. In cyber domain, this meant the opening of a door to a new era of escalation, as exemplified in the use of Stuxnet computer virus by the U.S. and Israel's covert action forces against Iran's nuclear program. In a similar fashion, China has often used cyber weapons against the U.S. government computer systems and contractors with the motive to map "military capabilities that could be exploited during a crisis".[40] The goal being to take a picture of the U.S. defense networks, logistics, and related military capabilities that could be targeted during a crisis, cyber weapons have become integral to Chinese military strategy and it is estimated that 90% of cyber-espionage in the U.S. originates from China.[41]

4. Conclusion

Cybersecurity is a vital component of combined operations in modern warfare. It can be used by states, armed groups, insurgents, and terrorists as a powerful tool to gain asymmetric advantage, impose demands, and subdue opponents. Nevertheless, notwithstanding cutting-edge capabilities that cyber space provides, like any other advanced technology, it cannot be a pure play option for warfare. It is highly unlikely that cyber attackers from outside can breach a nuclear plant to trigger a disaster, but human factor should not be discounted as a major cause of cyber incidents. Blockchain-based de-centralized systems create cyber vulnerabilities if proper security measures are not incorporated into technology architecture from the outset. As a force multiplier for kinetic power, cyber can be put to divide, dishearten, and disrupt an adversary's will to fight, gather intelligence and trigger a crisis by subverting network defenses. Cyber attacks may be perceived as escalatory signals in a crisis setting and precipitate kinetic responses, or vice versa, laying clear the increasingly cross-domain character of military hostilities. Serious impact on a state's critical infrastructure, economy, and reputation, even if non-lethal, may grant the right to invoke the U.N. Article 51 for self-defense. In the 21st century's hybrid warfare, cyber domain will be a central part of conflicts and complement other domains for both states and non-state actors as armed groups use it to their advantage to dominate their adversaries. It requires more than just military hardware, but also training,

public awareness, and cross-agency cooperation to survive in this new normal.

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ENERGY AS A FINANCIAL SOURCE FOR TERRORISM

Oğuzhan AKYENER

INTRODUCTION

Terrorism is one of the most important and pestilential issues in the concept of international security. However, unfortunately, there is not an agreed universal definition for terrorism. From another point of view, terrorism is interpreted according to the global powers' political approaches and targets. Which means, in any time, if they have political conflicts with a group or state, they can claim the conflicted side as a terrorist. Visa versa, the dominating powers can accept a bloody terrorist organization as a freedom fighter and orientate the global public in this concept. In addition to this unfair situation, again the global powers may find, use and ruin terrorist organizations according to their commercial and political targets in a region. There can be found lots of clues and evidences supporting these claims. However, due to the nature of terrorism, it's not easy to find legal and official data for an acceptable demonstration.

This is the main point why the world cannot efficiently follow counter-terrorism strategies together.

Against all odds, terrorism continues to be a critical issue nearly for all the governments. In the concept of counter-terrorism strategies, blocking the financial sources of a terrorist organization usually gives a higher damage in the structure and the operations of such an organization. That's why, to fight with the terrorism, finance sight is as important as the military or security.

By considering the finance sources of a terrorist organization, in addition to general items such as; kidnapping, extortion, illegal trades and robbery; energy (mostly oil) can also be accepted as an important issue that has to be analysed.

In this study, after giving brief information about the definition and finance of terrorism, energy as being a financial source for terrorism will tried to be analysed. In addition, as can be considered under the title of energy, black oil sales and illegal crude trades will be referred. At last the current situation in Syria will shortly be evaluated according to the finance of terrorism with crude sales case.

DEFINITION OF TERRORISM

Although being one of the most important security issues nearly for all the states, there is not a common agreed definition for terrorism.

For example, from the sight of USA, terrorism has defined "(in Title 22 Chapter 38 U.S. Code § 2656f) as premeditated, politically motivated violence perpetrated against non-combatant targets by subnational groups or clandestine agents."[1] However, this definition is not enough to completely define the terrorism. Because sometimes, states or the governments can also be accepted as terrorists.

In addition to uncompromised definition of terrorism between the states, huge international organizations such as UN, EU, NATO etc. also does not have an agreed definition of terrorism.

May be this definition gap helps the strongest states to be easily declare some groups as terrorists, according to their political targets. Unfortunately, this unfair approach is a reality and some of the huge states directs the world's attention through the way of their expediencies. So, they sometimes form new terrorist organisations, sometimes do not accept them as terrorists, sometimes declare war against them and by this way find a chance to expand their playing ground in the targeted regions.

Historical approaches also verify this claim. Hence in the post – Cold War Period, the western block was the winner and had to find some new reasons to be able to continue their dominance in the exploited areas. And they have used the terrorism, coup, uprising and ethnical conflict cards for this aim. In addition, they also have used these issues to control or weaken their potential enemies in the world.

That's why the definition of terrorism is so complicated and changes according to the sight of all the states. As can be understood, sometimes the pioneer counter-terrorist countries may be the biggest terrorists.

Nevertheless, again from the general look, terrorism is usually accepted as the acts like threatening, intimidation, assaulting, rebellion, seizure, robbery, piracy, genocide, holding up, murdering, smuggling, anarchic spurts, cruelty and etc. And this generalized definition can be enriched by some categories such as:

1. Political terrorism,
2. Ideological terrorism,
3. Religious terrorism,
4. Ethnical terrorism,
5. Economical terrorism,
6. State terrorism,
7. Non-state organization terrorism
8. Individualistic terrorism
9. Having local influence terrorism

10. Having national influence terrorism
11. Having regional influence terrorism
12. Having international influence terrorism.

After giving brief information about the definition of terrorism and how it is impossible to have a universally agreed approach for terrorism, in the next part, the financial sight of terrorism will try to be considered.

FINANCE OF TERRORISM

Although from the sight of dominant states being cheaper than wars, terrorism is an expensive activity. That's why, all terrorist organizations need the adequate finance flow to continue their organisations and operations. Hence without finance, all the organisations, arms purchasing activities, logistics, transportation and none of the specific operations may not be able to be compensated.

Table below gives the estimated nominal costs of some popular terrorist attacks for consideration.

Due Terrorist Attack	Date	Estimated Nominal Cost
London Metro Attack	07.07.2005	8 000 £
Madrid Train Station Attack	11.03.2004	10 000 US$
Istanbul HSBC Bank & Synagogue Attacks	15 & 20 November 2003	40 000 US$
Jakarta JW Marriot Attacks	05.08.2003	30 000 US$
Bali Attacks	12.10.2002	50 000 US$
USS Cole Attacks	12.10.2000	10 000 US$

Table 1: Some Terrorist Attacks & Their Estimated Nominal Costs[2]

As can be understood from the table, each operation needs money. And without meeting the finance demand, none of the actions can be sustained. Intercalary, the table gives examples only for some specific operations. For the terrorist organizations, to keep the human resources together, demanded constant ongoing costs are higher than the operational costs.

That's why, finance perspective of terrorism is one of the most prominent issues in the concept of counter-terrorism planning. However, as the nature of terrorism to be illegal, it is not easy to follow and detect the finance flows without international/multinational cooperation.2

Although differentiates according to their social – regional – cultural – political properties, from the general perspective, terrorist organisations usually finance their demand through; theft, robbery, hijacking, smuggling, money laundering, illegal trades (such as: narcotic, arms, black oil, human, organ, nuclear waste, chemicals, jewellery and etc.), extortion, fraud, ransom and kidnapping activities.

"According to Michael Freeman's theory on finance of terrorism, there are 6 principle rules for terrorist about finance. Which are: amount, legality, security, reliability, control and simplicity."2 So, terrorist organisations look for; simpler, easier, manageable and more profitable works to earn money.

In this concept, terrorist organisations follow their operations nearly all due commercial areas. And energy is one of the most important and high profitable area to be focus on.

ENERGY AS A FINANCIAL RESOURCE

Energy (mostly crude oil) is a key area for terrorist organisations to supply huge volumes of illegal money. However, to clarify and focus on the details of this claim, initially the types of the energy resources must be studied.

To generalize, energy initially can be divided into two groups, which are primary and secondary energy resources.

"Primary sources can be used directly, as they appear in the natural environment: coal, oil, natural gas and wood, nuclear fuels (uranium), the sun, the wind, tides, mountain lakes, the rivers (from which hydroelectric energy can be obtained) and the Earth heat that supplies geothermal energy."3

"Secondary energy sources are made from other energy sources. They include electricity and hydrogen. People make electricity and hydrogen from primary energy sources such as coal, natural gas, nuclear energy, petroleum, and renewable energy sources (biomass, geothermal, hydropower, solar energy, and wind energy)."4

From the sight of primary sources, crude oil is the most common and feasible area for terrorist to focus on. Because it is easy to steal, easy to storage, easy to transport and easy to sell. There are many illegal and legal purchasers for crude oil. Hence the demanded volumes are high, small discounts in the prices makes each side earn satisfying profits. That's why, although being illegal, crude oil easily find a buyer for itself. These issues will be detailed in the section below.

The other important primary energy source, which has to be evaluated is natural gas. Natural gas does not attract the attention of terrorist organisations as oil. Because, for gas, it's not as easy as oil to steal, storage, transportation and sell. The process flows, sale structures, agreement types and prices are all different. Therefore, gas usually cannot be observed as a financial source for the terrorists. Even so, there may be some extraordinary cases. Such as:

CASE 1: We assume that terrorists have the control of a region, which comprehends existing gas producing fields. Moreover, those terrorists have the capability to continue the production in due fields. Which means; they have enough finance capacity, technical knowhow, human resources, a secure transportation and production infrastructure and a suitable market for sale. In addition to these items, money transfers and the projects' commerciality's are also other important items to consider. However, at the end; hence the milestones gas projects are belonging to each other and lack of one step means; the project and the sales will fail, for a terrorist organization this case seems very difficultly

to be actualized.

CASE 2: In this case, by hot-tapping a terrorist organization can steal some of the gas flowing through a pipeline. However, the main milestones in this case are "how to storage (or transport)" the stolen gas and "where to sell" it. These milestones are very challenging for an illegal organization and the returns and the profits are too small. In addition, hot-taps can easily be detected by the transportation companies and necessary intervention is operated in a short time. So, this case also seems not so probable.

CASE 3: In this case a gas resources comprehending terrorist government sells gas to another legal or illegal government in the near region. Although this case is also unlikely to occur, this seems the most liable case by considering the others.

The other primary energy source to be able to be considered in the concept of finance of terrorism is coal. By taking the production, transportation, sales and storage properties into consideration, coal seems a better option for terrorist groups to consider as a financial resource than gas. However, in illegal coal projects, the economics and the buyers will be the main milestones to consider. Hence, production and transportation costs may not compensate the buyers' demanded prices.

For governmentally supported terrorist organizations, some nuclear issues can also be considered as a financial source. Such as, terrorist organizations can be utilized for illegal and cheaper storage activities of nuclear wastes.

The other types of primary energy sources, such as geothermal, wind, sun, water and biomass are used to generate a secondary energy type: electricity. So, they must be considered in the concept of illegal electricity.

Illegal electricity can be considered as a financial source for terrorist organization in cases:

- Where the terrorists steal and utilize electricity illegally,

- And where a terrorist organization is producing, utilizing and selling electricity in a specific region (Such as terrorist PYD is currently doing in Syria)

As can be understood here, although some other types of energy can be perceived as a financial source for terrorist organizations, the main item to focus on has to be crude oil.

ILLEGAL OIL SALES

In global refined and crude oil markets, illegal sales have a huge capacity.

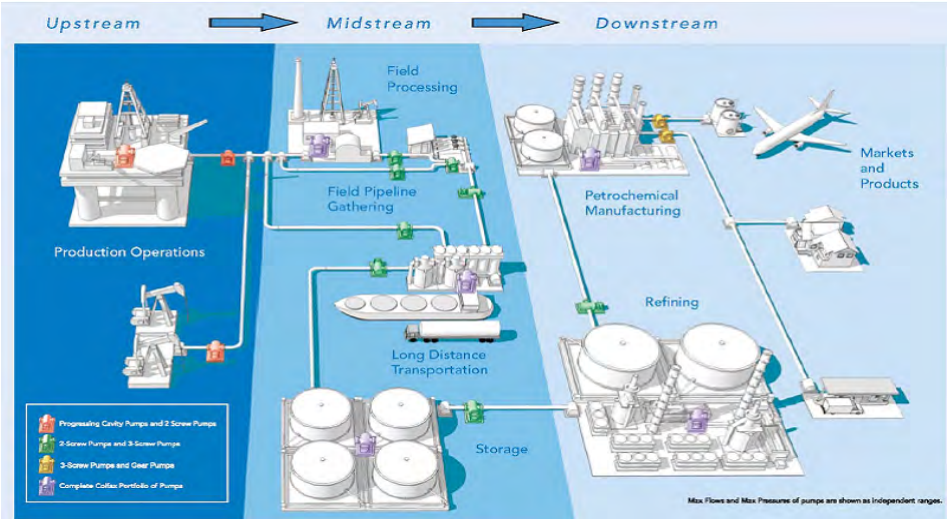
According to the BP Statistical Review of World Energy Report, daily registered crude oil production in 2016 is around 96 million barrels per day5. Which means, with an average oil price assumption as 60 $ per barrel, around 2,1 trillion $ per year.

Hence being illegal and unregistered, it is not coherent to give an exact range assumption about the black oil sales volumes in the world. However, to give an idea, some experts estimated about there was around 133 billion $6 of black oil trade in the world in 2015. Which means, around 6 million barrels per day illegal oil sales.

This estimation can be accepted as conceivable. Hence being unregistered and the

world has a greater production capacity, the real volumes may be higher than these estimations.

In order to be able to have a deeper understanding about the "illegal oil" or similarly "black oil" sales, it will be better initially to give a brief information about the oil market flow. Graph 1 blow shortly describes the general flow of oil from the production to the markets.



Graph 1: Upstream to Downstream Oil Flow[7]

As can be understood from the graph above, oil is produced from the due underground reservoirs with some surface production facilities. (Note: For offshore sometimes the due facilities can be constructed under the water) After production is handled through the wells, it is pumped to the initial processing units. In the processing units, some physical and chemical treatments are done and the semi-processed crude (where water, gas, H2S and other due components are treated) is sent to the storage units. From the storage tanks / units, the accumulated crude oil is sent to the refineries. And in the refineries, with again an advanced decomposition process, sub-crude products are prepared. After the refineries (amounts change according to the properties of oil and the refineries) different hydrocarbon compositions are sold to different buyers. Such as petrochemical facilities, gas stations, distributors and etc.

As mentioned above, crude oil has a long travelling period between the production wells and the last customers. And this transportation is handled by pipelines, trucks, tankers and some different types of ships. So, in every step of transportation period, there is always a risk for terrorists to steal some of the produced oil.

Now, in the below cases; how illegal crude is produced, stolen, sold and these processes are organized will tried to be explicated.

CASE 1: In this case, whole the oil producing field is under control of a terrorist organization. In such a case, usually the due fields are mature and already producing, which the surface facilities and wells can be accepted as somehow active. With a minimum effort and not so sophisticated personnel, the terrorist organizations can continue the

production. In such conditions the production levels are usually low, but the money flow exists. In addition, sometimes, some private companies may help the terrorist organizations to operate the field. This may be also possible. So, in this case the terrorist organization operates the field, produces, transports and sells. In addition, sometimes, with some small portative refineries it distils the oil to produce low quality diesel and gasoline.

CASE 2: In this case, the due legal state having the production fields continues the operations. However, with some deceptions in the metering stations (like showing to be produced less than the actual volumes), it makes up an unregistered volume of production. And sometimes these governments make terrorist / illegal organisations to sell those unregistered volumes for a less risky trade. This situation usually exists in undemocratic, non-transparent and undeveloped states.

CASE 3: In this case the produced crude oil is stolen by a terrorist organization through the transportation and storage processes. Usually by hot-tapping to the pipeline, the unrefined crude oil is stolen and after being glutted in a truck, transported and sold in a black market.

CASE 4: The terrorists sometimes also steal the oil by extorting a crude carrying tanker, ship or truck. In this case we also should mention that the stolen carrier may be filled with refined oil product. So, this case may be related with the downstream part of oil flow chart.

CASE 5: According to regional demands and the due situations, the terrorist organization may directly sell the unrefined crude oil in the black market or with low technology mobile refineries, it may produce low quality products and then sell or use them. Mobile refineries are so famous in undeveloped countries.

CASE 6: We can say this case as adulteration, which "is a sneaky process in which unwanted additives are put in oil or refined products but sold at full price. In Tanzania, for example, adding cheap kerosene and lubricants to gasoline or diesel is an easy way to increase profit margins, while remaining undetected."6

CASE 7: In this case the terrorist organization does not take part in the theft, production or in-country transportation actions, but organizes the black sales mechanism. In the concept of such a mechanism; smuggling, bunkering, ship to ship transferring, ship identity tricks and bribing techniques are usually followed.

As mentioned above, there is an important volume of this type of illegal oil trade. In addition, there are many multidimensional negative effects of these processes. Such as:

- Initially terrorism is financed by this trade,
- Environmental damages occur while hot-tapping and transferring processes,
- In low quality oil products production and adulteration cases, damages in the due utilizers' vehicles,
- Governmental revenue losses,
- More illegality.6

To give worldwide examples about these black oil sales, according to the given cases

above, the table below is prepared. Table generally shows the related cases observed in due countries' and if the due illegal trade is being used for finance of terrorism.

Country	Used For Finance of Terrorism	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7
Nigeria	√		√	√	√	√	√	√
Uganda							√	
Somalia				√		√	√	
Iraq	√	√	√	√	√	√	√	√
Iran	√		√	√			√	
Syria	√	√	√	√	√	√	√	√
Saudi Arabia	√		√					
Venezuela			√	√				
Mexico	√		√	√			√	√
Libya	√	√	√	√	√	√	√	√
Greece	√							√
Israel	√							√
Turkey				√			√	
Azerbaijan			√					
Russia			√					
Algeria			√					
Mozambique			√	√	√	√	√	√
UAE	√		√					

Table 2: Black Oil Trade in Some States & Cases

In addition to the generalized approach given in the table, some more specific examples from the international media can also be given such as:

"ISIL (DAESH) in the Mideast are producing crude oil valued at an estimated $800 million a year, according to a report from Douglas County-based research firm IHS." & "ISIL controls as much as 350,000 barrels per day in capacity but is able to produce only 50,000 to 60,000 barrels a day, according to IHS." & "IHS said the Islamic group is making about $2 million a day in sales of crude oil from territory it occupies in Iraq and Syria."8

"One of ISIS's most important financial resources is selling electricity and gas to Assad regime through ISIS controlled dams like Teshreen, Al Ba'eth and Euphrates dams, in addition to Tweenan gas field that is also under the league's control. Secret deals are being wrapped up between ISIS and Assad regime, where the regime conducts reform workshops in regions in exchange with ISIS providing them with electricity. Profits are divided in half between them."10

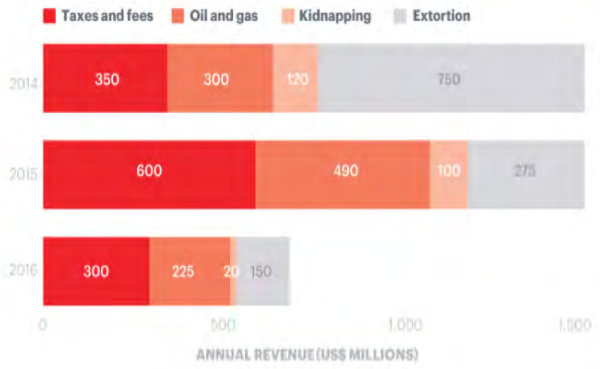
"Moderate estimates suggest 150,000 barrels of crude oil are stolen every day in Nigeria. The vast majority of this is sold internationally."9

"Nigeria's military said on Thursday that it had destroyed 13 illegal refineries in the restive Niger Delta oil hub, in an operation in which two soldiers died in clashes with "sea robbers". Military authorities say there are hundreds of illegal refineries in the region, which process stolen crude from oil company pipelines. Nigeria's navy chief has said that 181 illegal refineries were destroyed last year, 748 suspects were arrested, and crude oil and diesel worth 420 billion naira ($1.3 billion) was confiscated. The military shut down around 50 bush refineries in the first few weeks of 2017. (Where Crude oil sales provide two-thirds of government revenue.)"11

"Fuel smuggling is costing Libya more than $750 million each year and harming its economy and society, the head of the National Oil Company in the conflict-riddled country said."15

As can be understood from the examples above the main problems (and extreme cases) are in Nigeria, Libya Iraq and Syria. In addition, DAESH has earned lots of money from the black oil trade.

The graph below gives the illegal financial source shares of DAESH between 2014 – 2016. As can be understood, illegal oil and gas sales are the second biggest item in the budget.



Graph 2: DAESH Estimated Revenues & Sources from 2014 – 2016[12]

Of course, the world can take some precautions to stop or in the worst case reduce the volume of the global black oil trade. However, unfortunately, as described above, some huge states continue to proceed with the presence of some terrorist organizations. In additions, again usually the main customers for those illegal sales are again those huge states. In the next part, some examples can be observed in Syria will be described.

By the way; "There are two methods that authorities have been using to slow down and eventually eliminate fuel theft. (Which are) Fuel dyes are used to colour petroleum products a specific tint, to allow for easy identification and prevent fraud. However, some dyes can be replicated by criminals – such as those in Ireland who "launder" the fuel. (&) Molecular markers, which are used in tiny concentrations of just a few parts per million, are invisible and can also be used to identify fuels."6

In addition to these additive makers, international organisations must focus on these issues. All the foible points of due courses have to be cautiously investigated. Unitization of the metering stations' calibrations, transparent and publicly open data bases and periodic inspections are also important.

SYRIA CASE

Syria is an interesting and satisfying example to be studied in the concept of finance of terrorism with energy.

In 2014 DAESH was the dominant terrorist organization in the region. After DAESH has accomplished its mission in the region, another terrorist organization has taken the floor. With a deeper insight and a multidimensional approach, it is clear that both DAESH and PYD has been supported for the same targets.

With DAESH, USA and its western allies have tried to continue their control over the region. DAESH was initially planned as an insurance for the Shia menace. But then the bloody terrorist organization generally used for:

Ethnical cleansing in the region,

By changing the demographic dynamics, opening the floor for the Kurdish Terrorist Organizations (such as PYD),

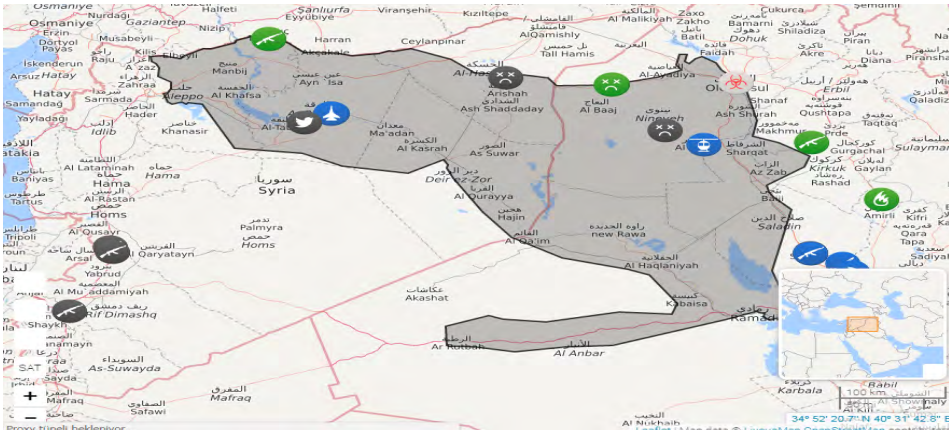
By building a natural wall between; in Iraq the central government and KRG, in Syria again the Esad forces and PYD, making those Kurdish organizations to resurge

Having a legal reason for the due western powers' presence in the region,

Showing all the Muslim world as a threat.

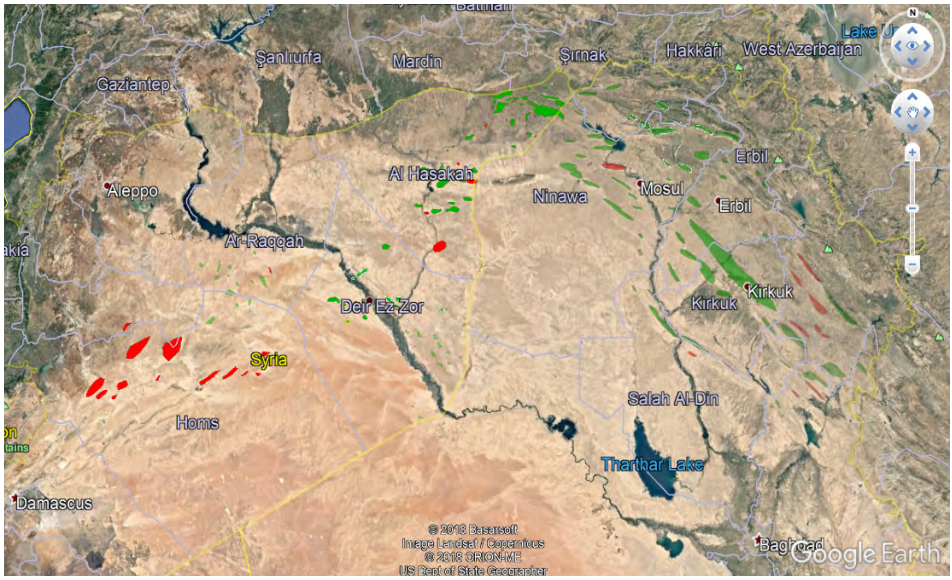
As mentioned above, after PYD became a position as strengthen as demanded, the game designers agreed on to finalize the DAESH's mission. Then PYD was chosen as the new puppet in the region. However, Turkish spurts change all the balances.

These maps below show how the dynamics in the region changed between the years 2015 – 2018.



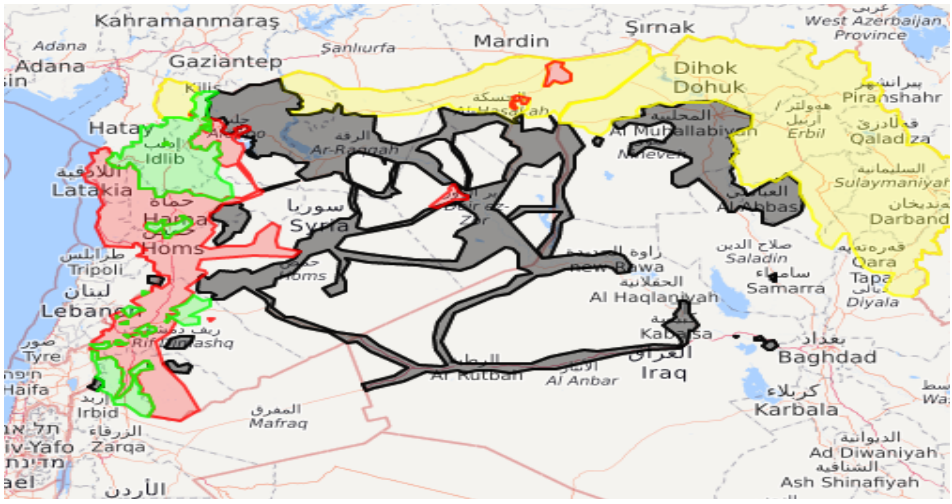
Map: 1 January 2015 DAESH

As seen from the map 1 above, DAESH captured a wide region in Syria and Iraq in 2015. In order to be able to compare the oil and gas fields distribution in the due are the second map (which is taken from the TESPAM's google earth-based data base) is given.



Map 2: Existing Oil & Gas Fields in Syria and Northern Iraq

By continuing with the next map, it can be observed that DAESH tried to control some of the important oil and gas bearing regions and step by step, left the captured areas in Syria for the new puppet PYD. (And also in Iraq left the captured areas to the KRG)

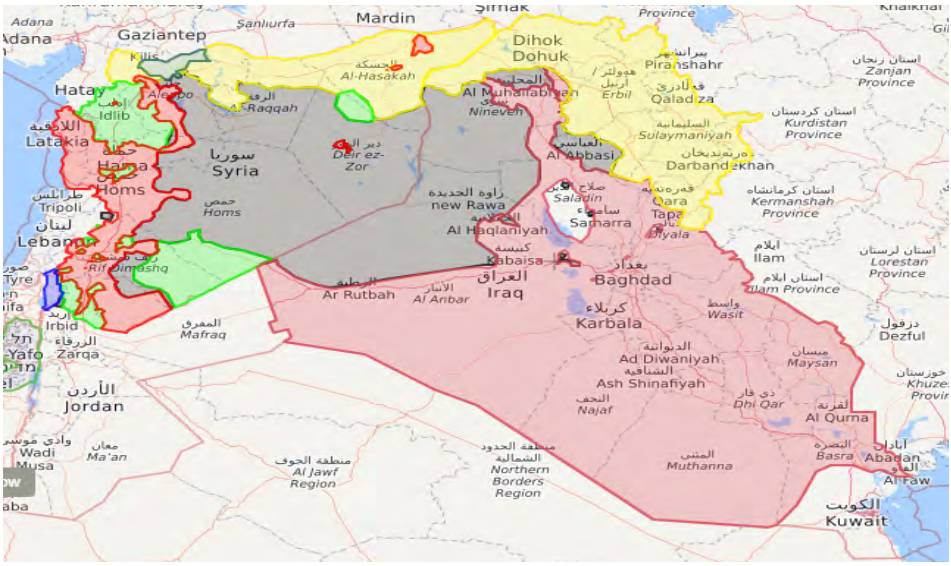


Map 3: 1 January 2016 DAESH & PYD

By comparing the 2 maps (from 2016 – 2017), it can be observed that;

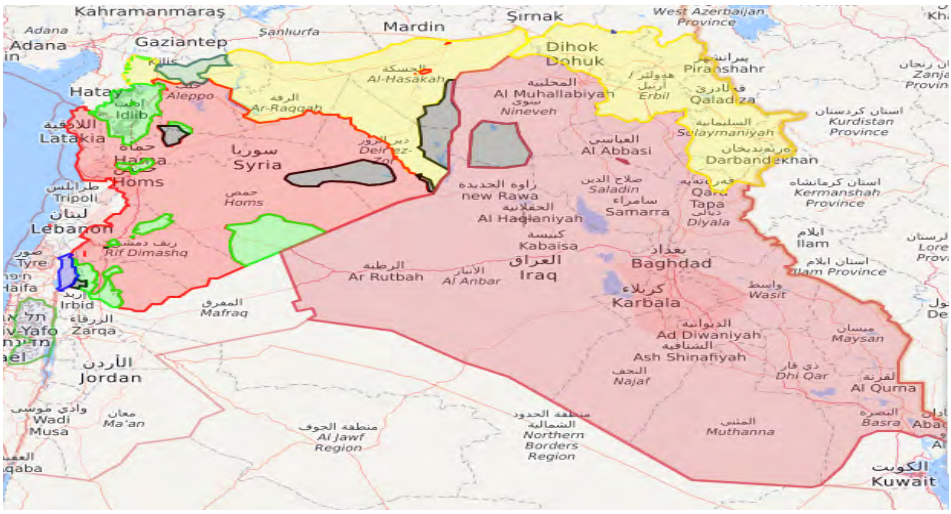
- While DAESH was leaving floor to PYD to complete the Kurdish Corridor, Turkey changed the balances with Euphrates operation.

- Israel occupied a region in the South West of Syria.
- PYD and KRG extended their occupation areas.
- Both PYD and DAESH continued to operate some of the available oil fields.



Map 4: 1 January 2017 DAESH and PYD

From 2017 to 2018 DAESH shared out the majority of its captured areas to PYD and Esad forces. However, PYD has taken the plurality of the existing oil fields.



Map 5: 1 January 2018 DAESH & PYD

As can be understood from the maps, "The Islamic State of Iraq and Syria (ISIS) began to take over oil fields in late spring 2014. Since then, ISIS has expanded its operations by creating a loosely integrated and thriving black economy, consisting of approximately sixty percent of Syria's oil assets and seven oil producing assets in Iraq."13

"The outcome has been astonishing, given that the Caliphate's portfolio of assets now includes sixty percent of Syria's oil assets and seven oil producing assets in Iraq. At some point, immediately after the launch of its crude oil venture in summer 2014, ISIS achieved production of roughly 30,000 barrels of oil per day. This rate has gone up, and in February 2015 reached the mark 45,000 b/d. This is a stonking statistic and it becomes almost baffling if one considers the fact that the commodity is being smuggled within a war zone."13

However, then step by step, DAESH left the majority of the oil bearing areas to the bloody hands of PYD. This situation can be seen in the map below.

Map 6: Existing Oil and Gas Fields in the Northern Syria & PYD's Presence in the Eastern Euphrates[14]

While focusing on the current situation, the majority of the oil bearing areas and the proved oil fields in Syria is under control of PYD. Generally, these are old and mature fields. In addition, nearly in all of the oil fields in the South East of Syria, reservoir depth is around 3000 meters, oil gravity and viscosity are high and during production critical levels of H2S came upon. These disadvantages make the oil production process more sophisticated, complicated, difficult, expensive and naturally less profitable and manageable.

However, with the help (under the operatorship) of some Russian and American private oil companies, PYD carries the production on some of the exiting oil fields. The continuing production levels are so low, by comparing the 2011's. This is due to inappropriate investment environment and logistical constraints in the region.

In addition, the due private operator companies employ some of the related Kurdish workers in the ongoing processes.

According to the estimations and the due interviews with the concerned, current total production of PYD in the whole captured fields are around between 50 000 to 80 000 barrels per day. And this production is illegally sold to KRG to be traded in an unregistered form. Hence the produced oil has low quality and is illegal, KRG's payment price for a barrel is usually 15 $ lower than the Brent prices.14

Note that; KRG buys the illegal portion of the PYD's oil and then, by blending its

existing production, supplies to the world markets.

From this scenario, by assuming the average daily production is 70 000 barrels per day and the average Brent price is 67 $ per barrel, then:

The barrel price of the illegal and low quality PYD oil will be 52 $ per barrel,

- This means, daily oil sales income will be 3,6 million $,

- By assuming %20 of this income is shared out for the operational and transportation costs (OPEX), the remaining part is shared between the due private operator (%40) and the PYD (%40),

- The remaining daily revenue of PYD from the illegal oil sales is around 1, 5 million $.

- By considering this amount for 1 month, then the revenue will be 45 million $.

- And for a year, with the same assumptions, the revenue will be around 550 million $. (Which is equal to the USA's 2019 official financial aid budget declared for PYD!

With such an illegal revenue, all the due oil producing players (PYD, USA, Russia) can easily continue to finance their (legal or illegal) activities in the region.

In addition, with such an amount of money, upon of a terrorist organization, a new terrorist state can also be founded in the region.

This is a clear example for how the terrorism is financed by the huge players in the world. The pivots usually gain in every deep points in scenarios.

In addition, it is clear that; unfortunately, the terrorism is defined by the global powers, by neglecting the ethical sights.

SUMMARY

Terrorism is one of the most important security issues in the concept of international public view. However, there are many unfair and insincere approaches, insidious and illusive acts of the global powers in the concept of terrorism. Unfortunately, all the global powers commentate the terrorism according to their political interests. In addition to this, they may not hesitate to find, use, make cooperation or support a terrorist organization in the concept of their political or economic strategies. In such a scenario, it is not easy to fight with the terrorism and terrorist organizations. However, the endeavour must be continued.

In this concept, finance of terrorism will be a critical area to be focus on. In addition, energy may be an important financial source for a terrorist organization.

In this paper, finance of terrorism with energy issues is tried to be analysed. Moreover, Syria case as a current example is shortly described.

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Population Movements Due To Climate Change and Their Political Consequences

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Abstract

The author discusses the current knowledge about global climate change and includes various estimates from the world on how our future is going to be. The paper argues how the people are going to be affected by the climate change and how the world policy will be a part of it.

Keywords: Global climate change, greenhouse gases, sea level rise, migration, future of politics

1. Introduction

First of all, global climate change affects the whole planet. Melting ice sheets and photographs of hopeless polar bears are the first images that come to our minds, though. There are ongoing changes in the climatic realities of Earth, in the lives and livelihoods of animals and plants, lastly, the human kind is also under threat. If our world goes under such a drastic change, then mankind would definitely need to alter its ways of living.

The current studies show various scenarios on how the plant and the population would be affected. Simulations of climate patterns, anthropological input to the problem and natural phenomena make up the current knowledge.

The number of people that are affected and going to affected are not certain due to many variables. International attempts and agreements will be effective to a degree. The Paris Climate Agreement saw the withdrawal of the USA. Also, the Kyoto Protocol's impact can be discussed.

This paper discusses about current effects of global climate change, effects on people, and politics of migration problems.

2. Current Effects of Global Climate Change

It is common perception that glaciers and ice sheets are fast melting. Polar Regions feel the change more drastically. Penguins and polar bears especially are having difficult times of finding food and mating grounds. Some species, such as foxes, butterflies, and plants, migrated further north or to higher altitudes to live in cooler conditions.

Sea level increase has speeded up in the 20th century and precipitation has increased globally. By 2100, there may be a 60 cm rise in sea water levels and polar ice melting could bring an extra 20 cm rise to this number.

Warmer conditions caused invasive species to thrive in places like Alaska destroying the flora. Some diseases will find it easier to spread. Extinctions will occur when some species fail to migrate to suitable places for them.

More extreme weather conditions are happening and will continue as the climate changes. Hurricanes, floods and droughts will be more regular (*Effects of Global Warming*, nationalgeographic.com).

Rise in sea levels worldwide, destroyer storms, crop failures, extinctions, Greenland and the Arctic ice melting, glaciers worldwide start crumbling, growing deserts, death of coral life, carbon dioxide in air starts producing a weak carbonic acid in the oceans, a saltier and less lively Mediterranean Sea, disappearing of rivers and lakes, hotter temperatures causing more fires, dustier air, deaths of people due to extreme weather, more pests and pest related diseases are some of the effects of global climate change mentioned in various newspapers, magazines and studies (americanprogress.org, 2007). Frankly, humans consider these challenges to be problems when they are directly affected. Some of the issues only concern developing countries, so they are seen as distant problems or even worse, not important. However, the dusty air problem occurs in the USA as it occurred in the last century, this may bring a positive outcome proving the point that climate change is really happening.

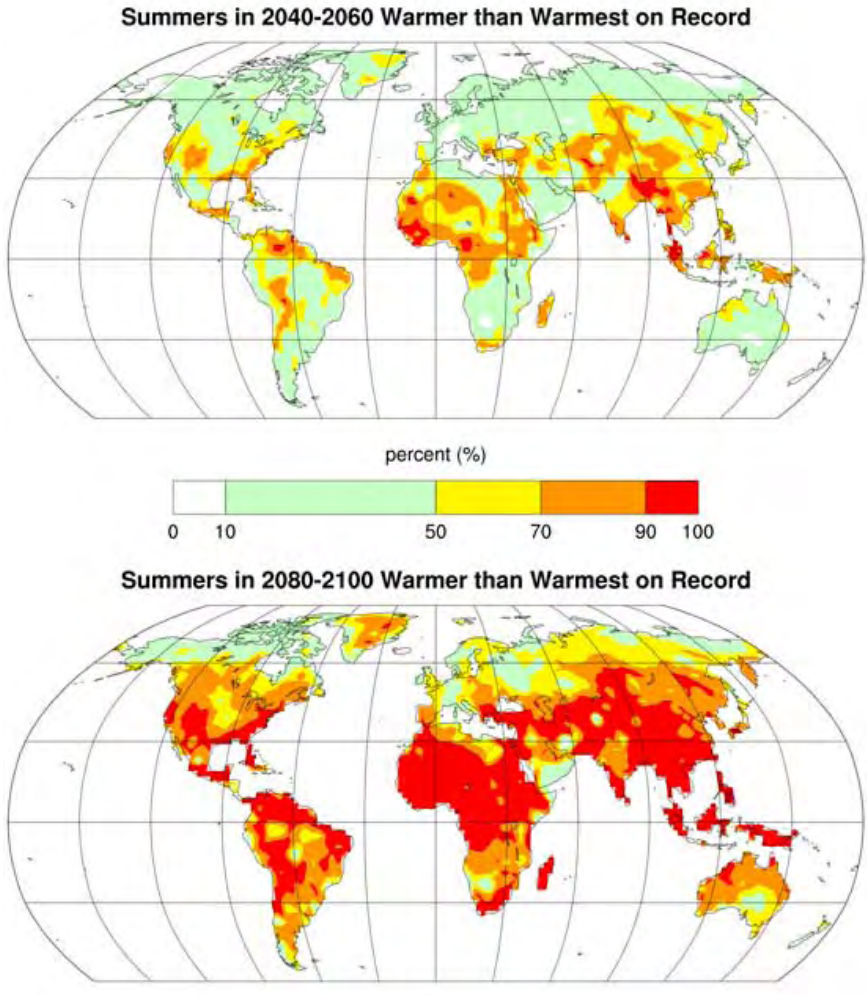

Image: Maps showing the possibility of summer temperatures to be higher than the average of between 1900 and 2006 (newscientist.com, 2009)

The maps above demonstrate the simulation results that show the coming decades are going to be warmer than the warmest that has ever been in the last 120 years. Greenland is going to see major changes on its ice sheets as its climate gets hotter. The water level on the world's oceans depend on how plentiful the Greenlandic ice would melt and how much sea water would expand as it warms up. We may need to switch to more heat resistant crops if we do not want to starve (newscientist.com, 2009).

3. Effects on People

Looking at the settlements across the globe it is observed that humans prefer temperate areas. Deserts and extreme northern lands are scarcely populated. Geography and climate together bring the outcome of human preferences in this sense.

Since the last known ice age, populations shifted their positions. Humans switched from hunter gathering communities to farming villages as climate became more stable and more temperate. The key word here is "stable" since it is vital to be able to predict the seasons and precipitation patterns in order to grow grass, fruits, and vegetables. Ancient Egyptians set their calendar according to the Nile's behavior, the farmers knew when it was going to flood, and it was the predictable and fertile lands of the Nile delta which drew ancient people of the dry Arabian Peninsula to a more prosperous life.

Less than a century ago, in the 1930s, the American Dust Bowl events caused thousands of families to move to California from Kansas, Oklahoma, Texas, New Mexico, and Colorado. Also, the famine in Sahel in Africa between 1969 and 1974 caused millions of people to move to different areas (*Population*, what-when-how.com).

All species have a certain degree of adaptability towards change in their habitat. Each specific species may have a greater tolerance, however, if their preys have already left the area or died out then this limits their survival chances equally. Then, the hunter needs to look for a new location with more ample food. Also, creatures that require host species as their abode depend on those beings. If nut bearing trees disappear then squirrels need to move elsewhere, or if birds do not have any trees in the vicinity to set their nests on then they will not be able to reproduce. Failing of one or more species in the habitat generates a domino effect. When humans cannot find anything to eat, plant or animal, then it is time to look for a new dwelling; therefore, it is important to note that change of climate itself does not automatically mean migration. Fail of foods, failing economy, collapsing political conditions, social problems, and war calamities are to be considered.

The islands that will sink, areas to be devastated by floods or hurricanes will bring local collapses and the populations of these specific areas will be displaced. The question is still unanswered though – will this trigger massive migrations or stay local?

International efforts and treaties such as the Paris Climate Agreement can lessen the wound to come. Levees and channels can be built to avoid flooding of areas under threat. Developed countries are responsible for the current greenhouse gas levels. Developing nations are trying to catch up with the developed nations and it is the developed countries' responsibility to subsidize and help the other countries so that the effects of climate change are not as drastic as we fear.

Once more, the history may give us ideas about what climate change can do to whole civilizations. The Mayan Empire that was the superpower of its era in Central America collapsed and failed to survive. For many years this was a mystery. Between 9th and mid-10th centuries is the Mayan collapse era. Lake deposits show similar findings showing effective drought in the region (*Drought and the Ancient Maya Civilization*, NOAA). The Mayans cleared up forested areas to open up space for agriculture and they cut down trees for their lime plaster to build cities. When this pattern met with drought in the Yucatan area, cities were abandoned (Stromberg, 2012). Mass deforestation of the Mayan resulted in droughts, crop failures and hunger. Their descendants still live in the area yet their civilization is long gone. The future generations may talk the same about us how our current civilization failed and how we perished.

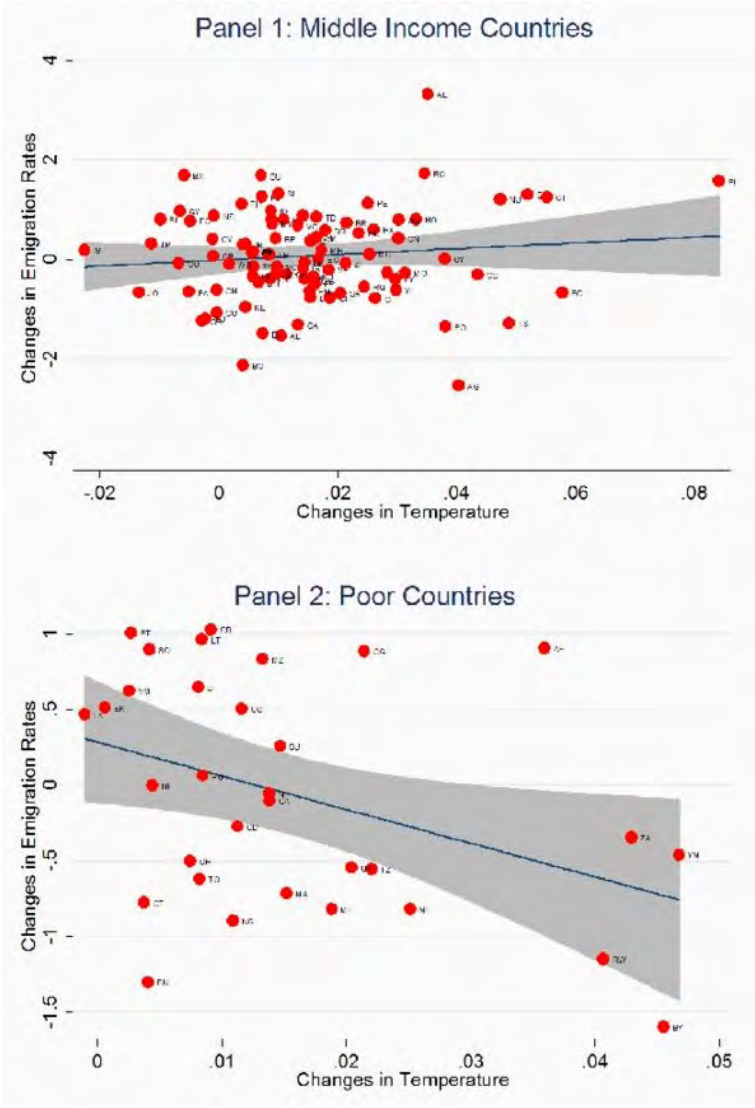

Image: Changes in emigration rates versus changes in temperature (weforum.org, 2015)

Migration is possible when it is available as well. The graphs above display immigration rates changing as the temperature varies. The poorer portion of the world cannot access means of transportation (just like people in Yemen or Somalia) and necessary means to immigrate to safer countries. Whereas, citizens of middle income countries have a higher chance of making their way to their destination goal. People often immigrate to countries within 1,000 km from where they currently live (weforum.org, 2015).

4. Politics of Migration Problems

Human social balance may get the biggest hit from the ongoing changes we experience as a result of global climate change. Altered precipitation patterns, severe weather condi-

tions, unalike or even worse pest problems and similar issues will cause food production and meat scarcity. According to a study by North Carolina State University the buildup of carbon dioxide can make plants less nutritive (Bradford and Pappas, 2017). Additionally, after the 2016 epidemic of Zika virus which is a cursed gift of climate change, people consider living in higher altitudes to escape from virus carrying mosquitos. People living in lowlands will move uphill looking for safer conditions.

Moreover, the U.S Department of Defense, the Center for American Progress and the Woodrow Wilson International Center for Scholars suggest as food becomes less accessible riots may occur, political volatility may rise and civil turmoil may start (Bradford and Pappas, 2017). This may bring border tensions and with the flow of people around diseases will spread further.

Former UN Secretary General Ban Ki-Moon stated that climate change possesses a threat as great as a war. He counselled the USA to take the leading role to reduce greenhouse emissions. Ki-Moon continued with the fact that island nations and rural African communities would take the biggest hit in the future although they are the last ones who were responsible (*UN chief warns on climate change*, bbc.co.uk). It was also stated by the former UN Secretary General that the Darfur crisis in Sudan began as an ecological problem which later on became a political calamity resulting in a terrifying genocide killing hundreds of thousands people and moving millions of people away from their homes (Ki-Moon, 2007). This unforgettable event is perhaps one of the most severe examples of what ecological problems can lead to.

Furthermore, the Somalian havoc also is a result of climate change. The drought, the famine, the failed economy and the government are the consequences.

Asian Development Bank reports that the Asia Pacific region is going under drastic changes as the climate change intensifies. There are no confirmed plans about handling the situation if mass migrations start in the region from sinking lands to other areas. Agriculture, biodiversity, fish population are already disturbed. Heat waves and unseasonal rain make the soil less fertile adding to the scarcity of food when the fisheries are already under threat. Besides, governments may suggest constructing new dams to control floodings which would cause even more people to leave their livelihoods (Political Reform Australia, 2018).

Even a developed country like USA suffers from drastic changes. The state of Louisiana experienced several mass floodings in the past few decades. People's homes were submerged under water, they went off the grid, and there were food shortages and many other problems. The infrastructure to keep the area safe from flooding failed to save the cities as it was out of date and lacked renewals. Moreover, in the same country, forest fires caused even more people to leave their abodes looking for new places to build their lives. The USA is only one country suffering from climate change. Now if we consider scores of other nations that will go under similar changes then we can have an educated guess about the catastrophe awaiting us.

During the Neolithic Revolution, people moved to more suitable areas to live. Then, this lead communities to defend the little amount of resources they had. Consider Neolithic weaponry and compare it to the modern ones. The dire consequences are yet to

come. Crime rates will be soared and high density settlements will be heavily polluted (LakeShow T., 2010).

The Pentagon declared climate change an "immediate risk" to national security. Its report lists precautions for how to protect US bases, handling humanitarian calamities, and positioning against global struggles. US Defense Secretary Chuck Hagel added that defense responsibles and armies need to be alert about climate change. International skirmishes might become more brutal as resource-poor countries might seek ways of armed conflict to reach resources in their resource-rich neighbors. Accordingly, terrorism might rise once again (Friedman, 2014).

The Maldives government evacuated minor islands and replaced its citizens to some of the slightly higher islands. This is a temporary solution. Papua New Guinea emptied the island of Carteret and made the people move to a larger island called Bougainville. Pacific islanders are looking forward to more stable settlements in Australia and New Zealand where they have labor agreements. However, 4/5 of Australians live in coastal areas and the government is seeking to limit further coastal development (Fritz, 2010).

5.Conclusion

Mass migrations occurred throughout the history may it be because of wars, diseases, or droughts. If we take the Great Migrations during the Roman Empire times, we see that the host nation that accepted the incomers collapsed as its system and infrastructure could not carry the burden. Also, if the settled nation closed their borders to the incomers that led to war and other atrocities. All in all, mass migrations bring pure chaos to both the travelers and settlers (scienceheathen.com, 2015).

The UN should encourage all countries to work together on handling the issues about climate change and mass migrations to come. "Climate refugees" may in fact become a real term in order to find social and political base for movement of people across borders. International aid should be channelized to climate refugees, preferably, before it is too late mitigation of climate change's effects.

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Energy as a Game Changer for Turkey in Global Dynamics & the New Energy Unity

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Abstract

The rise of Turks forthe fight against terrorism has been changing the outlook and the reputation of Turkey worldwide. Military activities and alliances with Russians and Iranians in the Middle East has started to change the global dynamics. One of the main ingredients in the global balance is energy as it is well known. Turkey's military presence in the Middle East means a definite power shift among world's developed countries. However, it makes a great sense to mention what future might hold for Turkey in current global dynamics, where slight power shifts occur.

Understanding the importance of energy and energy resources in the region, where Turkey have gotten heavy responsibilities either militarily or economically will re-open up new Turkish era over Muslim world. History of Turkish influenced regions lights up how high importance of Turks have over the Islamic world. By any means, Turkey must use its reputation within Turkish Civilization Geography or wherever can be accepted as being of Turkish heritage.

Knowing that almost half of the world's hydrocarbon reserves are situated in Turkish Civilization Geography, Turkey's most important game changer has to be "Energy" indeed. Turks have to achieve certain goals to become a supreme power in energy world. Uniting Turkic and Islamic world under the roof of energy is to bring success. It is important to analyze Turkey's energy related capabilities and create a well-designed path by great energy strategies along with its military activities in the Middle East and soon to be in the regions of Turkish heritage.

This article aims to address Turkey to take actions in Turkish Civilization Geography with well-defined politics and energy strategies, to start a unity among Turks and Muslims. Hence, once again, bring the justice and rest on the world.

1 - Introduction

Current international dynamics suggest that the world is standing at the edge of huge global changes. Energy has been referenced as the driving force in the world order for a couple of centuries. The rise of machines required energy and energy sources to accelerate technologic innovations and developments. The West started depleting their reserves and / or they sought for known reserves in other parts of the world such as Africa and Middle East. The final outcome of this urge to reach the vast energy reserves was the world wars. Empires fell as new states were born under the hegemony of the West, the conqueror of both world wars.Having acquired the control over areas with vast energy reserves, the West had designed a unipolar world order. The rest of the world had to play by their rules or face the subjugation.As a result, energy sourceshave become the key concerns for the governments for the last century.

Many countries have been trying to acquire, improve and develop new technologies to strive for freedom from the unipolar world order or each country has been trying to have its own place in that order to survive and maintain their freedom. International conflicts havesignaled apparent changes in the global energy balancewithinthe last decade. Questioning of the global energy dynamics has emerged from terrorism, alliances, power shifts and new energy routes or alternative routes. Indeed, the unipolar hegemony in key strategic sectorssuch as energy is to be reconfiguredas new key players are on stage to acquire their shares and reshape the world order in their favor.

Turkey, with its growing economy and political stability backed by its own people and Muslims throughout the world,is to be recognized as one of the new key players that has the ability toeasily gain highest reputation in global dynamics. Such reputation in the global dynamics can be leveraged and maintained by the civilization geography that can be perceived as Turkish heritage accumulated in centuries through loyalty, governance, traditions, culture, justice, etc.

A quick focusover the civilization geography of Turks manifestsenergy as an emerging item because Turkish civilization geography holds nearly the half of world's oil and gas resources.Therefore, Turkey has to concentrate on its civilization geography to once again accumulate the Turkish world's leading royalties. Reuniting the Muslims around the energy resources is a vital key for global Turkish supremacy.

The vitality of energy and energy resources in Turkish civilization geography has to be advertedin a manner, where Turkey's evolvement process for being a supreme power should mesmerizethe global political dynamics. The corroboration of how important the energy resources and issues for Muslim world are requires new powerful key strategies and political advancements in Turkey's global agenda. Turkey's elaborated preparations for such strategies and politics will prevail "The New World Order".

In this paper after shortly overviewing the current global dynamics, energy potential of the Turkish civilization geography will be analyzed and finally some key strategies for Turkey being successful in this rivalry will be described.

2 - Global Dynamics

The strategy that the West has been using to dominate the world is based on arbitrary measures over international dynamics. The countries that lost the world wars have been sanctioned both economically and politically. For instance, they bought certain traitors or placed their own spies in key bureaucratic positions in the newly established governments. Such puppets were especially chosen from the minorities, who would never gain governing power in any cases. In certain countries like Japan and Germany, they preferred rebuilding the country by special constitutions that subdued the government to grant privileges to the West's needs.

Technological development and the search for the new markets for the produced goods had increased the West's popularity. In addition, the term "Global" was born that initiated technology transfers and sharing throughout the world. Eastern countries,in addition to their economic developments, had substantiated their own technology that has begun to disturb the hegemony in global dynamics. Hence, alteration in the global dynamics has become unavoidable.

By means, the general tendency in the world manifeststhe rise of "The East" as Eastern countries are strengthening their hands in technology and economy,and the West is weakening or lingering in accordance. Global commercial, technological and financial estimations showcertain signs that today's apparent world leader United States of America (USA), which used to be oriented by English intelligence (and now waging a war for their liberty within Pentagon) will eventually yieldthe leadership in the commercial and financial areas to China, Russia, Turkey or whomever will be taking the lead.

It is known that many Western billionairesand as well as the UK's deep mind are in support of China in this trend. Additionally, there also seems political dissidences between Jewish billionaires, who happen to have high influence in some important Western countries. Uncertainty among international politics is pressuringUSA to take firm actions to innovate new strategies apart from the current customaries that struggles USA or withdraw fromthe global influence and leadership. In this concept, what USA has been trying to achieve is as follows:

A. Having more controllable EU (politically and economically)by weakening the unity, initial act of Brexit,

B. Using the terrorism card on Europe to have grants for more accessibleEuropean policies,

C. Increasing the export volumes to the NATO members by the deterrence of its military capabilities,

D. Militarily having more control over China by using the suddenly appearing nuclear conflicts in Korea,

E. Elaborating Russia's growing activities in Middle East, Asia and Africa through the continuous negotiations without alienating Russians,

F. Preparing the groundwork for a Sunni – Shia war in the Middle East by:

a) Trying to control or suppress both sides economically and politically,

b) Mesmerizing itself as the peace-maker and an antiterrorist country in the global public opinion even though itself is creating and managing the terrorist groups in every region of interest,

c) Manipulating the arms trade in its favor,

d) Getting more room and financing for new arms and develop new technologies by trading the old ones in regions with conflicts,

e) Spreading rumors thatMuslims are barbarians and terrorists,

f) Interferingwith the increasing Turkish, Russian and Chinese influence in the region,

g) Protecting Israel and Israel's interests in the region by any means such as covering up Israel's inhumane actions (declaring Jerusalem as the capital is a great example),

h) Funding Kurdish tribes so that a Kurdish State could be established in the region, safeguarding drug routes and Great Israel's extension,

i) Restructuringits global strategies to interrupt increasing influence of new Turkey over the Islamic world,

j) Trying to keep the advantages of controlling the energy resources in due regions,

k) Focusing on struggles against China's rise throughits energy and military capabilities,

l) Insidiously, contributing the conflicts between Afghanistan – Pakistan, Pakistan – India, China – Hong Kong, China – Taiwan, China – Russia, China – Japan, North Korea-South Korea to cause regional disputes and trouble each country to stabilize its influence.

m) Attempting to prevent China's Modern Silk Road Project, which will definitely end the West's hegemonyin global trading and start a new era of the shining East.

Considering USA making think tanks and having to come up with new plans and strategies such as outlined above, there is enough evidence for the alteration in the dynamics of the world order. However, all changes that have been occurring suggest thatthe world might encounter new conflicts, more terrorism, chaos and perhaps another (cold) world war.

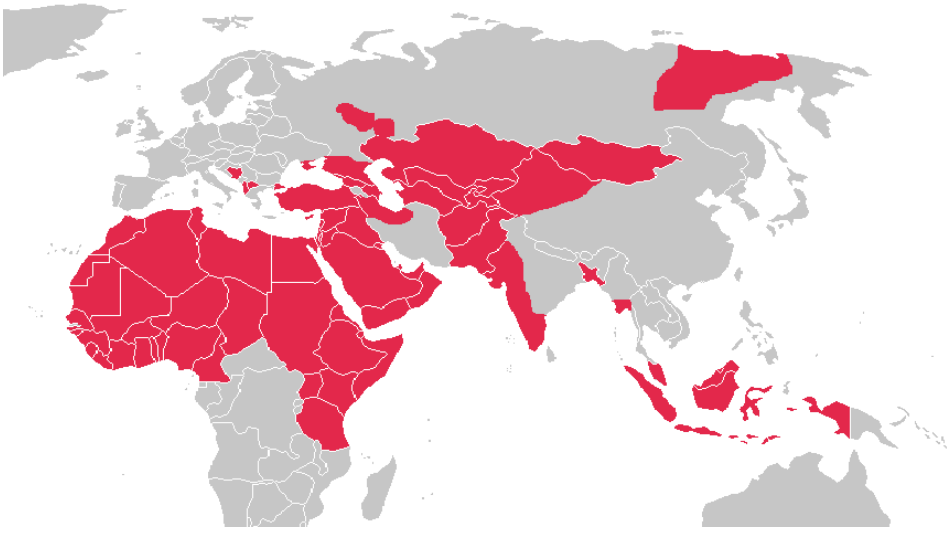
Turkey's civilization geography as given in Map 1 holds more than half of the world's energy resource. This could be the key leverage for Turkey to take serious steps toward uniting the Muslim populace in its civilization geography and most importantly gather the other nations of the East under the roof of energy to end Catholic& Protestant supremacy in the world. The vision of new Turkey along with its historical heritage and influence in those regions require a powerful, stable, active and orderly state. Attracting the attention of the Muslims worldwide, Orthodoxies, Buddhists and other believers, Turkey and the unity can save the humanity or give them a salvation chance from the possibly approaching apocalypse.

3 - Turkey's Civilization Geography & Energy

Civilization geography and the vastenergy resources in due geography are the main

leverages for Turkey to be the influencer in current global dynamics as they are introduced above. At this point, lifting the current borders and redrawing the whole Turkey's civilization geography as Turkey's most important heritage are necessary. To suit this reason,map 1 below is prepared for due consideration. As can be understood from the Map 1, Turkey's civilization geography concept consists of Ottoman and Seljuk Empire's territories and additionally current Muslim and Turkish countries, states or regions.

Possible loyalties to Islam's Caliph along with ethnical, cultural, historical and religious properties of the due societiesare considered as a whole while preparing such map.For this reason, some Shia groups or states are not added in the due civilization geography. It is important to note that the sultan of the Ottoman Empire had also shouldered the duties of the Islam's Caliph. On the other hand, Republic of Turkey, being the successor of Ottoman Empire, preferred abolishing the Caliph Foundation. Turkish parliament has commissioned a new government institution and named it Presidency of Religious Affairs, which gathers all the rights of the Khalif Foundation but the president of the institution is not defined as the Caliph. Current circumstances in Turkey's constitution indicate that Turkey has the ability to assign a Caliph at will. Additionally, new presidency system in Turkey gives the president such power to replace the current legislations for the Presidency of Religious Affairs and design a more powerful institution that can bring "The Caliphate" back.Return of the Caliphate foundation might easily and quickly integrate Muslim brotherhood and gather them under the roof of Islam. Doing thatmight very well be an important key leverage for Turkey to dominate in the due civilization geography.



Map1: Turkish Civilization Geography

Drawing the borders of the civilization geography mentioned aboveand adding or introducing the foundation of the new Islamic Caliph to the geography will be the start of the Turk-Muslim unity butother important factors should also be considered to characterize the economic growth and wellness. And that is going to bethe vast energy resources, which requires well defined great strategies and politics to follow.

Evaluation of the energy sources in the geography is crucially essential. First, it makes

sense to analyze the potentiality of the countries in the geography. The list of countries is the civilization geography with the highest (or most important) oil reserves are given in Table 1 and that for the gas bearing countries is given in Table 2.

Table 1: Important Oil Bearing Countries & Reserves in Turkish Civilization Geography[1]

Country	Proved Oil Resources (billion barrels)
Azerbaijan	7
Kazakhstan	30
Turkmenistan	0,6
Uzbekistan	0,6
Iraq	153
Kuwait	101,5
Oman	5,4
Qatar	25,2
Saudi Arabia	266,5
Syria	2,5
UAE	97,8
Bahrein	0,1
Yemen	3
Algeria	12,2
Chad	1,5
Egypt	3,5
Libya	48,4
Nigeria	37,1
Sudan	5
Tunisia	0,4
Brunei	1,1
Indonesia	3,3
Malaysia	3,6
Total	809,3
World Share %	47,4

Table 2: Important Gas Bearing Countries & Reserves in Turkish Civilization Geography[2]

Country	Proved Gas Reserves (trillion cubic meter)
Azerbaijan	1,1
Kazakhstan	1
Turkmenistan	17,5
Uzbekistan	1,1
Bahrain	0,2
Iraq	3,7
Kuwait	1,8
Oman	0,7
Qatar	24,3
Saudi Arabia	8,4
Syria	0,3
UAE	6,1
Yemen	0,3
Algeria	4,5
Egypt	1,8
Libya	1,5
Nigeria	5,3
Bangladesh	0,2
Brunei	0,3
Indonesia	2,9
Malaysia	1,2
Pakistan	0,5
Total	84,7
World Share %	45,3

A quick look on the tables of Table 1 and 2 indicates that:

a) The sub-states or the societies locatedin Russia, China, Iran, and Indiaare excluded from Turkish civilization geography.

b) Although some of the Turkish and Muslim societies are excluded, Turkish civilization geography still holds 809 billion barrels of proved crude oil reserves that is a %47 of the world's total share. Proved gas reserves are, on the other hand, 84.7 trillion bcm with a world share of %45.

c) The above calculations reveal an unearthed fact that Turkey as the inheritor of such a civilization geography, andas the leader of the Islamic world, and as returning the Caliph of the Muslims, could have potentially shaken the whole balances in the global dynamics

(as can be referred with the 1973 OPEC crisis). The tables point to another fact about why Turkey has been exposed to a harsh propaganda that Turks are barbarians, cruel, mean, maniacs and the list goes on. Added to that, the West hardly tries to stop Turkey's development by always using prejudice remarks about human rights and its democracy, economic and political subjugations followed by terrorist attacks. Keeping Turkey struggle in its interior affairs makes Turks shy away from its civilization geography and energy sources or not be able to elaborate on Islam, the foundation of Caliph and so on.

To summarize, Turkey will have two important key factors in hand that are (1) having more and effective influence in the due geographyand (2) the energy sources along with very well planned and established energy strategies.If Turkey successfully manages to achieve to connect the geography over religion, culture and resources, it can:

a) Once again, be the world's leader that values justice for all not for just specific beings,

b) Change, reshape and settle all the dynamics that has been worsening for the Turks, Muslims and Orthodoxies,

c) Protect the innocents, stop the bloodshed in the world and award people with higher quality standards,

d) Counterattackand evaporate the so-called-Islamic radicals and terrorists, which are founded and supported by the Western masterminds to create negative perception of Islam, which is the last, unique and still intact God-sent religion.

e) The rise of "The East" against barbarian "The West" is to start theunavoidable change.

Some experts, political and religious leaders might evaluate re-activating the Caliph Foundation or Caliphate as a dream or impossible to bring alive. However, Turkey with its well-established roots has military, governmental, historical and cultural abilities to sustain great changesin any communities. It only requires finely tunedand planned new strategies to realize thedream. Key players' ambitions and struggles in-between always create some gaps to fill by any country that can contribute to the power shifts. The only thing Turkey has to do is to take the advantage of such contribution. A Jewish saying states that"If you do not believe, it is not a hope!" which means Turkey has to work hard and believe, and the rest shall come!

3.1 - Key Players in the Region

As can be understood from the Map 1 above, in different locations of the Turkish civilization geography, different players have the dominance. For example; USA and some Western Countries are dominant in the Northern Africa and the Middle East. But mainly in Caspian Region, Russia and China are dominant. Moreover, China's and Russia's influence are increasing in the Middle East and African Countries. And this situation can be accepted as one of the most important reasons of the Arab Spring.

Hence, due to its rivals being powerful and strong, Turkey has to follow long termed, decisive, quick, flexible and careful strategies to be victorious in the dominancy wars in its civilization geography. However, Turkey always has a comfort of all those rivals having continued to overcome struggles and conflicts between each other. Moreover, all

those key players are still strangers to those societies in due geographies. But Turkey is not!

History is a clear evidence of the justice and serenity of the Turkish dominancy in due geographies. The cruelty and persecutionsof the other key actorsin current dynamics are apparent facts to strengthen Turkey's hand.

So, again a Turkish dominance will be a hope for all the aggrieved people in all those societies and the humanity.

3.2 - New Turkey with New Intentions

In addition, mostly having cleaned out the terrorist FETO teams from the governmental bodies, with important spurts in domestic transportation systems, military technologies, economics and in the foreign affairs' issues; Turkey has started to play an active and effective role leading to independently takeresult producing steps in its civilization geography.

After the collapse of the Ottoman Empire, the successor state Turkish Republic pacified itselffrom the Islamic world by abolishing Khalif foundation, left all of its religious influence and the strategic upper hand over its civilization geography to the new World Leaders: Western players. They have donevarious kinds of swindles in economic, social, cultural, technological areas to pacify Turkey within its borders and Islamic world.

However, the continuing political stability of the country and people's support of the governmenthave encouragedhandlingimportant milestones that could prepare Turkey to lead the Islamic world. Especially after the failed coup attempt in 2016, Turkey has stood up and moved effectivelyforward on its global dominancy.

However, hybrid attacks over Turkey and its interest will be deepened through global terrorism governed by the West but the impact of these attacks may not even reach to a level that will please them.

3.3 - Hybrid Wars to Weaken the New Turkey

As being more effective, more stable and commercially – politically – militarily stronger and gaining the ability of more independent decision making, Turkey has beentried bymany hybrid attacks designed by the global key players.Gezi unrests, 17 – 25 December Operations, Daesh – PKK – PYD – YPG attacks, FETO Terrorist Coup, commercial – financial operations can be accepted as some key phases of those attacks.

However, fortunately, Turkey could ward off all these attacks and grow stronger on its way tobecome a global dominator. Military operations in Syria, successfully followed strategies in Qatar crisis, Kurdish referendum in KRG and the UN voting course for Jerusalem proves capability and the increasing effect of Turkey in the global dynamics.

Now it is time for Turkey to act with new spurts and again become the main game changer with the most important key issues; its civilization geography and energy. For this reason, the key strategies for Turkey to be more influential initially in energy and then naturally in the global dynamics are to be analyzedin the following section.

4 - Key Strategies

While energy can be accepted as a game changer in its global vision, Turkey initially has to start digging into its current strategies, missionsand road maps in its energy agenda. In this concept, the starting point must be the energy vision. Hence, the current global energy politics does not reflect well perceiving the global targets of the sprawling country.

4.1 - Change the Current Energy Vision

Initial step for Turkey can be accepted as to achieve the goal of changing the current energy vision. Because, the current energy vision mainly includes 3 topics. Which are:

a) Securely and sustainably meet the increasing energy demand,

b) With some national strategies, increase the domestic share in the consumption equation,

c) Become an energy hub/trade center/transit center.

However, while evaluating these 3 issues according to the new Turkey's global vision, they do not meet the high level demands and future expectations.

As can be understood from the above issues, all are related with the domestic or near-regional topics, which make Turkeynot to focus on more global agendas. However, Turkey has to consider more global targets instead of the regional and national ones. Off course meeting the country's demand, security, sustainability, efficiency and increasing the domestic resources' share are important issues however, they are not enough for Turkey to be a real global player in the international area.

In addition to being an energy hub / a transit center is not a coherent strategy by analytically considering the commercial and geopolitical trends. Which also means, Turkey should give up concentrating in a more meritorious position by following European linked policies and start to understand the meaning of "The world is greater than 5!" and think globally instead.

To clarify; from this point of view, Turkey has to:

a) In addition to paying more attention to expanding its domestic resources, follow up all the detailed ongoing or planned energy activities including exploration in the global area,

b) Take actions, give comments, write and publish decisions related to due strides,

c) By this way show and mention that it is dealing with all the global policies,

d) Archive all the due facts and developments and prepare the most coherent and successful projections for the future of global dynamics,

e) Pursue all the energy markets and stock exchanges and coordinate & direct the allied investors to get more influence and profit,

f) Coordinate all the domestic and international allied organizations and companies with such developed backgrounds,

g) Improve the financial and technical abilities with new joint ventures,

h) Focus on the civilization geography to extend the range of the due joint ventures,

i) Plan and put new strategies to recover the lost years in global oil and gas markets,

j) And basically, not only try to meet its own demand, keep a mind and hands in the whole world.

By starting to think more globally, instead of domestically; Turkey will be able to actively take more steps in all due energy related areas.

4.2 - Invest For the Energy Technologies

Secondly, making investments for the energy technologies will be another important step for Turkey. Mostly on technologies that will have a chance to change all the balances in the long term have to be focused. Such as;

a) More efficient and cheaper solutions for renewables such as sun and wind,

b) Methane hydrate exploration and production technologies,

c) FLNG systems,

d) Small scale LNG systems,

e) Electric motors,

f) Electromagnetic technologies,

g) New energy storage technologies with the utilization of boron,

h) More efficient and cleaner coal technologies,

i) Coalbed methane and unconventional oil/gas production technologies,

j) Some key oil & gas exploration technologies,

k) Efficiency technologies,

l) Neural energy grid technologies,

m) Electromagnetics and so on.

Turkey has to target developing technologies in due areas mentioned above and become a technology producer and exporter to initially its civilization geography and then to the world.

4.3 - Strengthen the Financial Capabilities

In order to be able to put more active steps, financial capabilities are vital. For example, with its extreme financial capacity, Chinese national oil companies could get the leadership of oil and gas markets. They are now acting nearly all over the world. They easily can get all the due tenders and fields. They can even invest in technology development activities due to their high amounts of financial potential. This is the proof of how a vital item of finance is.

That's why with the support of Qatar and other due ally countries, Turkey has to acknowledge the importance of an international energy investment bank for future projects. And through that, try to strengthen its financial capabilities.

4.4 - Strengthen the Domestic Oil and Gas Companies

As known, oil and gas are the most important energy resources for the world. And the Turkish civilization geography is popular with the giant oil and gas reserves. For Turkey to be an influential actor in the region, it must have (not only one) numerous strong & experienced oil and gas companies. These companies, with their international experiences, human resources, financial &technical capabilities, should be able to handle many different& difficult projects in all areas of oil & gas markets.

With some conscious changes in the current structures, joint ventures, financial &governmental supports and leading the due companies to successfully take part in more international projects (instead of carrying everywhere the construction companies) this target can be accomplished. Turkey has to put some coherent steps into action to be able to reach such a level and be sure that successful oil & gas companies are the key to be active and influential in its civilization geography. The history of the last century suggests that those oil companies can be a more influential tool than an embassy in any country.

4.5 - Change The Mind In Its Current Domestic Oil & Gas Exploration Strategies

As it has been widely accepted that Turkey does not have big oil reserves or potential at all. However, this acceptance is an unfortunate expression of the fact that "We really do not know what we are doing!". Blaming complex geology for not being able to find hydrocarbon reserves is just a misperception that explains how explorers have lack of incredibility on solving or reversing geological time frame. Characterizing tectonic settings and definition of petroleum basins will, of course, help understand and simply complex geology that has been the biggest enemy of petroleum exploration in Turkey. Explorationists that currently work in Turkey's oil industry are inadequate to replace the geological model. This is due to some geological constraints built over 60-80 years of exploration experience.

However, detailed analytical studies available in TESPAM's archives show that the complex geology argument has not really been resolved at all. Everybody in this industry talks about the complex geology but no one really tried to solve the complex equation by digging into the parameters that resulted in the complexity. TESPAM's experts prove that this approach of reasoning Turkey's insufficient oil reserves is not true, neither is it scientific. Current geological and tectonic models have to be re-modeled by using different disciplines and correct tools. Utilization of geophysics (seismic, gravity, well logs), geology (surface, well cuts, cores well logs) by experts that can integrate all these data and contribute to a geological model that yields all hydrocarbon basins will definitely and completely change all the approachesto Turkey's unfortunate oil destiny.[4,5]

Turkey's real potential will be uncovered with new interpretations and some state promotions on the domestic oil and gas exploration activities can be trigger the industry.

With a developed domestic oil and gas market, it might be easier to go international in a shorter time. But making Turkey's oil companies internationally successful, which is necessary for Turkish dominance in the geography, is not an easy task to achieve. A few ways might help Turkey to establish strong and successful international oil & gas companies.[6]

The first way is quick but costly that involves hiring international experts with proven record of oil exploration and production. Such company with respected explorer staff will definitely compete with current big oil companies, and perhaps, replace foreign dominancy in Turkish Civilization Geography. This is not a bad way to start thinking big but funding it might be difficult since those experts have very high salaries.

Another costly way is to acquire a successful international company and use its resources and assets. This is a way to directly get in business but managing such a company or understanding the company dynamics might be hard for an inexperienced country.[7]

Third option might be joint ventures but this has been tried for decades and there is no experience gained through joint ventures. Reasons can be regarded to managerial wrongdoings such as favoring weak-links, unintelligence, and basically choosing wrong personnel for the wrong job.

Forth option is a lot cheaper comparing to the previously revealed options that is to dig into the human resources of current government and/or privately owned companies. The potential experts or expert-can-be staff can be aggregated into a chosen company or distribute them in a totally new company. These best of current staff aggregated in to a smaller but more functional company can sign into bigger and greater domestic and international projects.Knowing what they are doing, they will reveal Turkey's real potential. Having resolved complex geology and found domestic hydrocarbon reserves, these experts can overcome any complex geology abroad and carry out great projects in any region.Turkey might very well utilize the forth option as a leverage in its energy strategy since domestic exploration activities that have been succeeded for decades lack intelligence, experience and expertise of earth sciences.

4.6 - In Addition of Being an Energy Resource, Approach Nuclear Issues as the Elevator to Get the Nuclear Technologies

Nuclear is an important (but not in the most important level) energy resource, which Turkey is very tardy on. Eventually, with the new nuclear power plant projects, Turkey is trying to meet with the nuclear technologies. However, in this early stage, for Turkey should give importance tohave a wider approach in nuclear policies.

Hence, with the same costs and with less risks, Turkey can get its energy from the renewables. So, if it is planned to construct 3 nuclear power plants, Turkey has to aim to be experienced in the nuclear technology. And by using this technology in different areas (initially military), has to interfere in the global policies.

In addition as shown in the Akkuyu Power Plant construction period, Turkey has to develop & alter the mentality of its construction companies. Because, generally, construction companies prefer less risky and less complex investments and directly work

for ongoing progress payments to continue a sample project. However, in energy investments (both in oil and gas markets and nuclear) you have to pay a lot and the money will turn back years later. This contains huge risks. And you have to have the finance, design, risk management, human resources and planning capacity to be successful. That's why for the initial step of nuclear in Turkey, it is not easy to persuade the construction companies to make investment. So, with the governmental support, the structures and mentalities of some selected huge domestic construction companies have to be changed and developed for energy investments.

4.7 - Try to Get Collaborated Finance Strategies

For huge investments and projects, finance is very important. And there is always a chance to finance a secondary energy project with another master energy project. For example, it is possible to finance oil and gas projects through considering the waste storage costs of nuclear projects. And similarly, sun – wind and geothermal projects can also be financed during the investment periods of oil and gas production projects.

That's why, Turkey has to study on such legislative structures and promotions about making collaborated finance and investment strategies for the domestic projects.

4.8 - Try to Deal with the Whole Global Dynamics and Produce More Ideas - Studies -Projects

Turkey also seems inadequate in producing ideas, studies, projects, works, estimations, projections related with the global energy issues. Because of this inadequacy, it naturally follows the global trends and due actions through the other (usually western) resources. However, if Turkey really wants to be an influential global player, it must have its own databases, analysis systems, estimations, projections, ideas and products. Otherwise, with the foreign assumptions and ideas, global targets cannot be reached.

To solve the inadequacy of Turkey in this area, initially it has to fund a global energy (any energy related issues) database. And after this step, it has to unify the research centers, other due organizations and universities to make global and regional analysis with the advantage of such database.

By acquiring such an ability, Turkey naturally will start to declare some ideas, solutions, projections and expectations about (for example):

a) Turkmenistan's and Iran's gas trade disputes,

b) Energy disputes in South China Sea,

c) New trends, discoveries, political strides in any location of the world,

d) India's energy strategies,

e) Potential US & Russian gas rivalry in Europe,

f) LNG trends,

g) Regional energy transition expectations,

h) Technology transfers,

i) Nuclear waste storage activities in undeveloped countries,

j) Results of China's increasing abilities in all energy areas and so on.[2]

And by this way, Turkey will start to shape the global dynamics with its own analysis and declared studies.

4.9 - Always Support the Environmental Issues

Without doubt, environmental issues are one of the most important concerns in all energy projects. And being devoted and supportive in the environmental topics in energy issues will gain important prestige to the due countries or structures in the long term.

In addition, technology development in those issues will also be another advantageous point. That's why Turkey also has to consider these trends and prepare some precautionary plans in this area.

4.10 - Use the Position in Shanghai for Due Targets

Turkey is the new leader of the Shanghai Energy Club. And the ongoing political dynamics shows that both the Shanghai's and the Turkey's position in the global policies are growing. Turkey can use its position initially to open the gates to the Turkish Caspian and Middle Asia countries (those also can be accepted in the content of Turkish civilization geography).

For example, by using its position in Shanghai, Turkey can;

a) re-structure the due division and become more influential in the member countries' energy issues,

b) persuade other members to accept Azerbaijan, Turkmenistan, Afghanistan, Northern Cyprus, Malesia, Indonesia, Qatar, Kuwait and Bangladesh as the new members for the due division,

c) determine the possible energy investment opportunities in the unity,

d) fund an energy investment bank under the control of the due division,[3]

e) prepare the infrastructure of the "Islamic Energy Union"

That's why Turkey must urgently prepare some strategies and forward some diplomatic steps to be able to benefit from the advantages of such position.

4.11 - Try To Set Up an Energy Unity in the Islamic World

Islamic identity is the main nexus in the wide Turkish civilization geography. And incontestable, Turkey is the leader of this community. After the collapse of Ottoman Empire (the last political authority of the Muslims), the world of Islam has lost its lead-

ership, authority and rights. Through this period, sometimes (with the encouragement of the Western minds) Iran, Saudi Arabia and Egypt tried to shoulder the leadership of Islam. But all failed. Many different ideas, organizations and activities have tried to be waged but none were effective and wholly acceptable.

And the strengthening and liberating Turkey again started to show the reflexes of it is dealing with the problems of the whole persecuted Muslim world.

At this point, while other issues also be followed, precisely, energy can be used as the main leverage item for the Islamic world to regain its respective position in the international public opinion. Some of the Muslim OPEC member countries showed (by using their supply volumes) how they could be influential in the global dynamics in 1973 crisis. However, after that crises, all the due Arab countries with many different hybrid attacks kneeled down by the Western powers.

History shows that only with the leadership of Turkey, Islamic world could handle all types of the Crusades. And again new Turkey proved that it has the ability to fend off the new types of Crusades in the last decade.

Videlicet, it is time for Turkey to put forward steps and unify the Islamic world again. And for such a long term target, the most coherent step is to start with an energy unity between the due countries.

As shown in the above text, the due civilization geography (Islam world) has nearly half of oil and gas resources in the world. Which means, "Islamic world" is equal to "oil & gas". That's why the energy step can be the most practical one that can be achieved.

For such an organization and a unity, Turkey can follow a road map as follows:

a) Initially prepare the structure, vision, targets and potential members of such a union,

b) With the financial aids of Qatar and Azerbaijan; prepare the initial budget,

c) (Also by using the position in Shanghai) persuade the due Turkish countries for such a union,

d) Then with the help of Qatar and Kuwait, invite the other due Arab countries,

e) Use some different strategies for Saudi Arabia, Egypt, BAE and Iran's memberships,

f) Invite China and Russia as the observer members,

g) Fund a fellow investment bank,

h) Determine the possible mutual investment opportunities,

i) Prepare a unified data base, establish and fund some research centers,

j) Invite the other possible OPEC members and so on.

5 - Conclusion

The western strategy to dominate the world is based on arbitrary measures over international conflicts especially in the parts of the world that have vast energy sources, different heritage or religion, race, etc. Developing countries have begun disturbing the

West's hegemony in global dynamics by either their economic developments or creating their own technology that can compete with the West's. Turkey has become one of these countries that have reached the ability to alter the global game played over the old Ottoman territory (Syria and Iraq).

Turkey's main influence in Syria and Iraq can be based on military presence, refugee crisis and civil engineering or construction. However, it is an absolute fact that Middle East is a great bed for vast hydrocarbon reserves. So, energy parameter in the current unrest in the region should always be kept in mind. A well- designed energy strategy is a must if Turkey's aim is to stay and stabilize the region.

By means, a well- designed energy strategy should cover the exploration stage as well as it oversees the mid- and down- stream capabilities. Strong and successful energy companies have to actively take initiatives for the know reserves and possibly discover new ones in the name of locals in the regions. Successful energy companies can be established using one of the methods described in the text that suits best for Turkey's interests.

Comprehending how important Turkish Civilization Geography's vast reserves and having powerful energy companies are the most important realities that Turkey has to face. Perhaps, evaluating the West's presence in old Ottoman territories should light up Turkey's path and follow what the West has been doing in those regions. Their large scale oil companies consume their vast reserves in favor of the West. Turkey reaching on a level to compete with those large scale companies will end their supremacy in those countries and return the wealth to the people, who have been suffering from the West's cruelty, terrorism and their puppets.

Strong energy companies will lead the way for Turkic and Islamic unity since Turkish ambitions will favor the people in those regions. United Turks and Muslims is the key to overthrow the unrest triggered and designed by the West.

As a result, Turkey has a few options to reunite all the Muslims by reestablishing the Khalif Foundation, build powerful and strong oil companies to extract vast reserves of Islamic world on its own.

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Energy Security Threats In The Mediterranean With Maritime Delimitation Disputes: Turkey vs "Cyprus"

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Abstract

In this study, the maritime delimitation dispute between Turkey and the Greek Cypriot administration will be defined and analyzed in the context of offshore activities in the Mediterranean. The aim of this paper has been to get a better understanding of what has been occurred in the Eastern Mediterranean between both sides and how maritime zones are violated by Greek Cypriots. Latest events showed that Turkey will not give any permission to the foreign vessels seismic survey in its continental shelf era. Maritime zones are integrated part of the Cyprus problem. This issue should be a part of the comprehensive settlement in Cyprus. Equal sharing the Island's natural resources are necessary. Greek Cypriots have no right to act unilaterally. There is no single sovereign authority on the island. No one cannot disregard Turkish Cypriots and Turkey's maritime jurisdictions. The cooperation is so hard but so too are barriers. Furthermore, possible energy roads will be discussed. As result, Turkey seems to hold the key the Eastern Mediterranean's energy security in the near future.

Keywords: Energy, Exclusive Economic Zone, Maritime Jurisdictions, Mediterranean, Turkey, The Greek Cypriot Administration.

1. Introduction

The delimitation of maritime boundaries in Eastern Mediterranean could be defined as a particular *volcano region* which is ready to erupt. On the other words, avalanche-growing consequences may result. There are many maritime delimitation disputes which cause conflict between littoral or opposite states. Due to, "Eastern Mediterranean is a distinctly maritime region known as a semi-enclosed sea" (Gözügüzelli,2017, thegreatmiddleeast.com). Indeed, the "Mediterranean is an example of a semi-enclosed sea, according to the definition given in Article 122 of the Law of Sea Convention" (Meier, 2013, p.3, Ronzitti, 2010, p.6). The regime of semi-enclosed seas is spelled out in Article 123, which encourages the bordering states to cooperate directly or through appropriate regional organizations in several areas, such as the conservation and exploitation of sea resources, protection of the marine environment, and coordination of maritime research. Security is not mentioned. Other states, not bordering on the semi-enclosed sea, may invite to cooperate (Ronzitti, 2010, p.6). Whereas, Greek Cypriots have been continuing to disregard the Article 122-123 of the UNCLOS in the Mediterranean.

As it is known that in the last few years, potential offshore natural gas fields have been discovered in the Eastern Mediterranean. Energy Companies argue that there are huge oil and gas reserves in the little-explored Mediterranean Sea between Greece, Turkey, "Cyprus", Israel, Syria, and Lebanon (Gözügüzelli, 2017, thegreatmiddleeast.com).

Driven by the possibility (proven or suspected) of vast untapped resources in the seabed, Eastern Mediterranean States began to make expansive claims to the seabed (Davenport, 2012). However, the semi-enclosed structure of Eastern Mediterranean has meant that all regional countries are semi-enclosed either as territorial seas, exclusive economic zones, or continental shelf. This has resulted in a multitude of overlapping claims, some of which have caused tensions in bilateral relations and undermined peace and stability in the region such as the case of Turkey vs "Cyprus" dispute. Notwithstanding this, Eastern Mediterranean may be described as the "Volcano Zone". Indeed, instability and conflict in Eastern Mediterranean could become drivers of insecurity for the energy security. Because there is no any consensus for EEZ between opposite or adjacent states in the region. Overlapping borders are caused the increasing tensions.

The beginning of the problem started by the Greek Cypriot administration (as a securitizing actor) which drew so-called EEZ line with Egypt in 2003. In 2007, another "EEZ" agreement signed but still pending by Lebanon Parliament. Additionally, in February 2007, the Greek Cypriot administration announces the first licensing round in 11 exploration blocks. Block 3 and 13 were excluded. In 2010 they signed another so-called EEZ Agreement with Israel. In result, GCs accept many domestic law regulations for expanding their claimed EEZ area over whole Cyprus that creates the overlapping borders with Turkey and TRNC which violates their Continental Shelf area or their maritime jurisdiction zones.

Until that time, the Greek Cypriot administration tried to show the main problem with Turkey is related the gas issue which periodically raised tensions, with Turkey demanding the Greek Cypriot postpone drilling until the solution of the Cyprus problem. Whereas it was one of the parts of the maritime delimitation question with Greek Cypriot, not drilling activities. Greek Cypriots used energy as a political weapon for expanding the

maritime zones in the region. In fact, Greek Cypriot's policy on securitization of maritime zones is the main target in order to accept new law provisions for strength their claimed sovereign areas which violate TCs and Turkey's inherent rights. This policy has been used also for the reason of militarization in the claimed "Cyprus EEZ areas". Additionally, on delimitation, both sides also have different legal arguments and Cyprus problem also the main component of the dispute.

Indeed maritime delimitation dispute is perceived as a vital issue for coastal states. The Convention on the Law of the Sea (LOS) addresses the various areas and came into force in 1994, and to date, 167 countries and the European Commission has joined the treaty, but over 400 maritime delimitation disputes happened as security concerns. In this respect, security is an important issue for understanding the dispute between Turkey and Greek Cypriot administration. Additionally, "after existing the 1982 United Nations Convention on the Law of the Sea (UNCLOS) states' rights over maritime zones were expanded, and there was a large increase in the number of maritime border disputes. Many of these disputes, including several with hydrocarbon resources in the disputed area, were referred by the disputing states to an international dispute resolution body for a ruling, despite the costs associated with such delegation" (VanLoozen, 2012, p.3). "States have been reluctant to delegate areas of state sovereignty which one of them is deliminiate the maritime borders including continental shelf and exclusive economic to an international dispute resolution body" (VanLoozen, 2012, p.3).Lebanon and "Cyprus" (Greek Cypriot administration or "ROC") ratified the UNCLOS. However, "Israel, Turkey, and Syria have not ratified the convention, and the United States (which is involved in the region since Noble Energy, an American company, has discovered and is developing most of the gas in the region) has not ratified it either" (Ben-Ari, 2012, p.15-16).

Especially, according to the International Crisis Group Report, Eastern Mediterranean tensions have risen since late 2011, when Greek Cypriots unilaterally began drilling in their rich offshore hydrocarbon reserves and Turkey responded with tough criticism and threatening naval maneuvers. Contested maritime boundaries and exploration of natural gas deposits off the divided island are the sources of the current dispute, but tensions also result from the slow down of UN-mediated Cyprus reunification talks (International Crisis Group, 2012). The Greek Cypriot administration' approach is more political than legal, whereas Turkey warns GCs to obey the international law. It is obvious that Greek Cypriots don't use the UNCLOS explicitly to deliminate their borders. The maritime borders between Egypt and "Cyprus" is effected by the median line" that mentioned in the agreement. This resulted in the violation of the West region of Turkey's continental shelf zone including southwest. Hence, one can deduce that when Israel and Cyprus drew the delimitation maritime border, they did not rely on UNCLOS, previous judgments by ICJ or related arbitrary courts on maritime delimitation or customary law. Due to 2010 EEZ agreement, violates Lebanon's maritime borders, caused Lebanon-Israel maritime delimitation dispute.

GCs objections against Turkey is not valid and based on value principles of the international law. The article of 34 of the Vienna Convention on the Law of Treaties stresses that "a treaty does not create either obligations or rights for a third State without its consent". In this case, since there are many states in the Mediterranean disputing their maritime boundaries, and in the case where two states agree on any EEZ agreement

which affects the other state maritime zone, it will not have legitimacy. Problems over overlapping maritime borders in the region and recent maritime delimitation attempts increase the tension between states. Turkey and "Cyprus" or Lebanon and Israel are in the same situation. Lebanon doesn't recognize Israel as officially that is same for Turkey & "Cyprus". There are other actors which have not recognized yet: TRNC and Palestine, even though, Syrian crisis continues. These issues are taking dangerous path deflagrate relations between regional countries. Cyprus, for instance, pursued the crises in exploring, drilling activities with international energy companies.

Indeed, Greek Cypriots claimed that they have the "sovereign right" to explore for natural resources in the so-called "Republic's EEZ". Although, the Greek Cypriot administration accepts that natural resources will be a federal competence in the event of a settlement of the Cyprus problem and, by implication, a shared resource for whole "Cypriots". But to date, they have not been willing to discuss current hydrocarbons' exploration in any context of settlement negotiations over the dispute.

Concerning the EEZ exploration rights, the international communities support the Greek Cypriot position, although most international actors generally make it clear that the revenues should be shared with the Turkish Cypriots in the event of a solution. On the other hand, Turkish Cypriots and Turkey, argue that any offshore exploration or exploitation carried out or authorized by the Greek Cypriots is the unilateral act of one community (Gürel and Mullen, 2014). The reality is that Greek Cypriot administration violates the maritime areas of Turkey and TRNC. Turkish Cypriots and Turkish rights are ignored by the Greek Cypriot administration, still, they are acting as they are unique representatives of the island which not reflects the realities. As a summary, today, it is observed that energy security has gained importance after the hydrocarbons sector began drilling in the region. Even there is no only Turkey vs "Cyprus" dispute, although, the maritime border disputes in the region continues between Israel and Palestine, Israel and Lebanon, TRNC and the Greek Cypriot administration.

The study is composed of five parts, each of them dealing with aspects of the energy security threats in the Mediterranean with maritime delimitation disputes in the context of Turkey and the Greek Cypriot Administration. Part One relevant the multiple characters of the Mediterranean. Part Two illustrates the proposed energy roads in Mediterranean and axis of energy insecurity. Part Three looks at Greek Cypriots drilling activities and reflection of Turkey. Part Four concentrates on problems resulting from ENI's drilling efforts in 3. Block with latest developments. Conclusions are drawn in Part Five.

2. Multiple Characteristics of The Mediterranean

In fact, the sources of insecurity in the eastern Mediterranean are diverse. They include a series of unresolved regional and inter-state conflicts, and a number of prominent functional security problems of a "hard" and "soft" nature – terrorism and political violence, the proliferation of weapons of mass destruction, organized and disorganized crime, uncontrolled migration, environmental and health risks, energy security, and more diffuse, perceived risks to identity (Lesser,2005,p.6-7). The depth of its water and the

nature of its bottom relief allow submarines the best employment. This has played and is still playing an important and vital role in the military relations between the countries whose interests are associated with the Mediterranean (Talha, 1990, p.11).

The question of security is not constrained only to one part of the region. It ought to be viewed through three distinct dimensions; the first concerns the national security of each individual country. The second is the regional security of separate entities. Lastly, since World War II, the international dimension has imposed itself through the presence and influence of the superpowers. The Mediterranean region is one of the most unstable areas in the world.

Since the end of World War II, one-third of the internal and international conflicts had happened in the Mediterranean area. The period 1973-1975 is considered the apex point of the Arab-Israeli War 1973, the Cyprus Crisis, Civil War in Lebanon and many other conflicts and sources of instability (Kağan, 2012). The area has witnessed lately the emergence of new sources of instability, such as terrorism, religious fundamentalism and so on.

Beside the above sources of instability, there are the Cyprus question and Palestine which are considered the main source of crises and tensions, not only in the area but also internationally. Even today the Syrian crises affect the regional security. Achieving peace and security requires a mutual dynamic interaction between the region and the international framework. More than one single power controls the Mediterranean, and these powers do not belong to the region. The Mediterranean basin is a heterogeneous region since the sea connects highly industrialized countries in the north with developing countries in the south. The littoral countries of the Mediterranean can be grouped according to their geographical location: European countries, North African countries, and Middle Eastern countries and Mediterranean countries. All these countries are linked by different ties which originate from historic, cultural, political and economic factors. Their political regimes vary from parliamentarian to presidential republics to constitutional monarchies. While among the there are some political problems and tensions (Turkey, TRNC, and Greece, Greek Cypriot administration), in general terms these countries present a "heterogeneous" picture.

Not only are there large differences in the size of the population, in the level of health and in the states of economic developments, but also in the perception of national security. On the southern and eastern coasts, the picture is more complicated due to demographic differences. While some nations with significant economic resources have a very limited population, others have high and increasing population diversity, but limited resources. In addition, there are social and cultural differences and political and ideological contradictions. In this area religion is an important element of differences. There are three monotheistic faiths (Islam, Judaism, and Christianity). Religion has been a major supporting factor for the various current political struggles (Talha, 1990).

In sum, the Mediterranean region is still providing to be complex issues. Current maritime borders make it harder for the parties to reach compromise over energy security. Even if the proposed pipeline projects, without delimitation of the maritime border in respect to other states rights, the conflict will be the inevitable fragile structure of the energy security.

3. Energy Security

Furthermore, definitions of 'energy security' range from narrow issues of physical supply disruption to broader ones involving the economic, environmental, and political consequences of changes to energy markets. The simplest definition, used by the International Energy Agency (IEA), refers to energy security as 'the uninterrupted availability of energy sources at an affordable price'. Achieving this security requires efforts to reduce risks to energy systems, both internal and external, and to build resilience in order to manage the risks that remain. Tools to achieve this include: ensuring markets function so that the forces of demand and supply correspond; developing adequate production and transport infrastructure; expanding risk management systems (reserves, emergency planning and alternative supply routes); maintaining a diversified portfolio of energy suppliers; and keeping demand under control (energy efficiency). But energy security considerations must also be balanced against competitiveness and environmental concerns – notably those related to climate change (Dreyer and Stang, 2013). The growing popularity of linking energy security and climate chane is rooted more in tactical political goals than in a real understanding of exactly how and where these two issues are linked (Global Agenda Council on Energy Security, 2015). On the other side, Weissenbacher defined energy as the ability or capacity to do work. The command of energy thus plays a fundamental role for societies, setting the outer limits of what can be accomplished by communities, nations or any social entity (Weissenbacher, 2009).

Since its inception the security studies represent the core of the international relations, predominantly dealing with the issues of war and peace. In the years following the second world war security studies have become a synonym for strategic studies with a distinct focus on the military sector. However with the growing complexity of the international relations agenda, namely the rise of economic and environmental challenges count, emergence of the new security challenges, risks and threats, emergence of the new international actors, the traditional view of the sole concept of security, that is, its essence, has become too narrow (Sulovic, 2010). In this respect, the energy security started to be considered as part of a consistent and more comprehensive policy. At least, Shaffer described energy security has three components: reliability, affordability, and environmental sustainability (Shaffer, 2009). Even though, energy policy remains a highly controversial issue throughout the world. Especially on the high prices of energy and geopolitical concerns over the security supply still on the agenda. Political instabilities also make insecurity of energy.

Beside, Turkey is known as energy corridor between East and West. Turkey would be very secure, low cost and efficient between Eastern Mediterranean and Europe. This would be benefit the Turkish Cypriots and Greek Cypriots in Cyprus, or for regional states to get huge opportunity. Whereas Greek Cypriots have been pursuing an provocative policy in the Eastern Mediterranean that conducting oil/gas exploration and issuing permits for such drilling activities aroun the island. Energy should be a new horizons for peace and harmony, but that is too far, more complex with Greek Cypriots unilateral activities which disregard Turkish Cypriot's existing rights but also challange Turkey's maritime jurisdiction zones.

4. Proposed Energy Roads And Axıs Of Energy Insecurıty

Despite all security concerns in the region, energy security has gained importance after the hydrocarbons sector began drilling in the region. The fundamental importance of energy security has meant that national security relating to broad power in the economy are "*the most vital*" issues, as they lie *"at the very heart of sovereignty"*. Hence, the significance of national interests over maritime zone provides the 'crystallization of disagreement between the disputes States' (Klein, 2010, p.258). "The IEA defines energy security as the uninterrupted availability of energy sources at an affordable price. Energy security has many aspects: long-term energy security mainly deals with timely investments to supply energy in line with economic developments and environmental needs. On the other hand, short-term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supply-demand balance(Energy Security, IEA, https://www.iea.org/topics/energysecurity/).

"Threats to energy security include the political instability of several energy producing countries, the manipulation of energy supplies, the competition over energy sources, attacks on supply infrastructure, as well as accidents, natural disasters, terrorism, and reliance on foreign countries for oil" (Power plays: Energy and Australia's security". Aspi.org.au. Retrieved 2015-11-14.Energy Security, Wikipedia, https://en.wikipedia.org/wiki/Energy_security#cite_note-5).

Energy discoveries in Eastern Mediterranean triggered the cooperation and conflict between states, but energy security still is unclear in the region. As explained below that active, inactive and proposed pipeline projects of the region:

Pipelines	**Capacity bbld**	**MMcf/d**	**Notes**
ACTIVE			
Egypt-Jordan-Syria-Lenbanon	---	966	Egypt-Jordanf-lows intermit-tent and at valumes less than contracted; flows to Syria nd Lebanon offline
(Arab gas pipleine)			
Iraq-Syria	---	----	Small pipe-line in the northe-ast of Syria; not a significant for internati-onal pipeline
(Aln Zalah-Sufayah-Suwediya)			
INACTIVE			
Egypt-Israel	----	677	-No flows since 2011
(El-Arish-Askhelon)			

Iraq-Syria	1,400,000	---	Iraq section
(SCOTLINE),two pipelines			inoperable ;Status of Syrian section uncertain
Saudi Arabia-Jordan	315,000-	---	Section from Saudi Arabia to Jordan closed
(Tans Arabian Pipeline(Tapline)	500,000		
			since 1990; discussion for
			reopening ocur
			occasionally
Syria-Leabonon(Gasyle1)	----	300	Not currently in operation;
			temporarily
			supplied Arab
			Gas Pipeline
			volemes to
			Lebanon
PROPOSED			
Pipelines	Capacity bbld	MMcf/d	Notes
Azarbaijan-Turkey-Syria	---	100-300	Infrastructure
			build-out not completed;
			Project unlikely to move
			forward
"Cyprus"-Greece	---	unknown	Proposed export pipeline from Cyprus; could
			connect to
			European
			distribution
Egypt-Palestinian Territories	----	unknown	Intented to supply natural gas to PT
			generating
			facilities; no

			details available
Iran,Iraq,Syrian Gas Pipeline	---	110	News reports
(Islamic Gas Pipeline)			İndicate
			Construction
			completed by
			2013; 20-25
			MMcm/d to Iraq
			Power
Iraq-Jordan	98,000	---	Proposed as
(Zarqa spur line of Haditha-			alternative to
Aqaba pipeline)			trucks on this
			route; no
			Significant
			Progress
Iraq-Syria (Haditha Banias,	2,750,000	Unknown	Two oil
Two oil pipelines, on natural			pipeline, one from
Gas pipeline			northerIraqan
			done from
			southern Iraq; one
			natural gas
			pipeline to aid
			Operation
Israel -Turkey	----	unknown	Peliminary
			discussions on
			Israel Turkey
			natural gas
			pipeline as
			alternative to
			LNG exports; no
			Project proposal
			as of July 2013
Syria–Lebanon(Homs-Tripoli)	---	378	Project
			abandoned
Syria-Turkey(Aleppo-Kilis)	---	145	Arab Gas
			Pipeline
			extension
			;Projectstailed
Turkey-Israel (Ceyhan-Haifa)	800,000	----	265 mile pipeline
			would connect
			Israel to Turkish

Energy hub in Ceyhan; no significant progress yet

Figure 1: Active, Inactive, and proposed pipelines in Eastern Mediterranean

Source; EIA, IHS EDIN, IHS Global Insight, PFC Energy, Pipelines International company reports, 2013.

In accordance to these pipelinesprojects, it is understood that the Eastern Mediterranean's location between the major oil producers of the Middle East and major demand markets in Europe is strategically significant. Additionally, the nearby Suez Canal is a major checkpoint in international shipping, particularly for oil and oil products. Further, the large offshore discoveries of natural gas make the outlook for the region as an energy hub more promising (U.S.Energy Information Administration Report on Eastern Mediterranean Countries, 2013).

Greek Cypriots intent is to become an important energy hub in Eastern Mediterranean region. The LNG terminal is targeted for export the products. Greek Cypriots hope to begin exporting natural gas from the Aphrodite field by 2019. The construction of a LNG terminal at Vasilikos is planing. Whereas, "there are proposals, at varying stages of development, to export gas via pipeline and as liquefied natural gas (LNG) from both Cyprus and Israel" (for a more detailed discussion of the proposed export routes" (see EIA's regional brief Oil and Natural Gas in the Eastern Mediterranean).

The planing routes are;

- "A new pipeline from the eastern Mediterranean to Crete (where the volumes could flow into the European grid)
- A new pipeline from the eastern Mediterranean to Turkey
- Use of existing infrastructure to send volumes to Egypt for export via its LNG facilities (Eastern Mediterranean natural gas exploration focused on the Levant Basin, US Energy Information Administration, 20 Agust 2013, https://www.eia.gov/todayinenergy/detail.php?id=12611).

The East-Med pipeline Project has developed for carrying the gas into Europe from Cyprus to Greece via Crete (Eastern Mediterranean Natural Gas Pipeline – Pre-FEED Studies, European Commission, https://ec.europa.eu/inea/en/connecting-europe-facility/cef-energy/projects-by-country/multi-country/7.3.1-0025-elcy-s-m-15).

The Memorandum of Understanding (MoU) was signed by South Cyprus, Greece, Israel and Italy on 5 December 2017. The intention of this memorandum is to cooperate in enabling and enhancing the development and the implementation of the EastMed pipeline project as a viable and strategic option and an infrastructure of special interest for gas producing states and the EU"(Lakkotrypis Signs MoU in Relation to the Eastmed Pipeline Project, 6 December 2017, Gold News, http://www.goldnews.com.cy/en/energy/lakkotrypis-signs-mou-in-relation-to-the-eastmed-pipeline-project).

The main target is providing energy security for Europe. For that reason, East-Med project, "financially and politically supported by the European Commission, proposes to transport 8-16 billion cubic metres annually of natural gas through a pipeline – more

than 2,000 kilometres long and with depths in some locations exceeding 2,000 metres – across the eastern Mediterranean. With a cost exceeding €6 billion, the pipeline would transport in the first stage Israeli and Cypriot gas to Greece and offers the European Union a good alternative to Russian gas" (Abboud Zahr, Challenges of an East Med pipeline,2 July 2017, Cyprus Mail, http://cyprus-mail.com/2017/07/02/challenges-east-med-pipeline/).

As the result, the Eastern Mediterranean (EastMed) pipeline project aims to: i) enhance Europe's gas security of supply via diversification of counterparts, routes and sources; ii) develop EU indigenous resources such as the offshore gas reserves around Cyprus and Greece; and iii) promote the development of a South Mediterranean Gas Hub(.A direct link to new sources for Europe, IGI Poseidon, http://www.igi-poseidon.com/en/eastmed). This makes EU ignore the rights of the other actors and delimitation problems in the Mediterranean. In this case, the Greek Cypriots illegal activities based on *hypocritical politics of Europeans*.

Additionally, the region has gained more importance with **Modern Silk Road** or the **Belt and Road Project** which is "aimed at connecting China by land and sea to Southeast Asia, Pakistan and Central Asia, and beyond to the Middle East, Europe and Africa" (China's new 'Silk Road' cannot be one-way, France's Macron says, Cyprus Mail,8 Jan 2018, http://cyprus-mail.com/2018/01/08/chinas-new-silk-road-cannot-one-way-frances-macron-says/). Turkey is the dominant power in the region for transferring energy into Europe. The Belt and Road Project strengths Turkey's strategic importance. Haifa Project is still frozen but will be the best way for carrying the gas. It seems that Turkey will be energy hub in the Mediterranean in next future with its pipeline projects or energy activities.

On the contrary, several factors may influence how and when exports may come online: regional insecurity, such as the ongoing conflict in Syria and the recent unrest in Egypt; territorial disputes, such as that between Israel and Lebanon; and the status of economies in both potential exporting countries and destination markets like Europe and Asia(Eastern Mediterranean natural gas exploration focused on the Levant Basin, US Energy Information Administration, 20 Agust 2013, https://www.eia.gov/todayinenergy/detail.php?id=12611).

Despite the all several factors, Turkey provides the regional security and peace. Turkey is the dominant actor in the region, struggling the terrorism, providing the energy security which export of gas to Europe, including the southern, playing as a vital role both the Black Sea and the Caspian Sea. Turkey expanded its relations with Russia and Iran as well as the oil-rich region in Iraq. Turkey now in the Mediterranean and showed its determinants which protect its maritime jurisdiction zones. Turkey would be able to import larger quantities of gas from Israel, Lebanon, Gaza and possibly TRNC as well as Syria. Turkey industry is rapidly growing in the energy sector which ensuring its own long-term energy supplies. Turkey is the centre of the transit revenues from the Mediterranean to Europe.

5. Greek Cypriots Drilling Activities And Reflections of Turkey

An agreement between the Greek Cypriot administration and the Arab Republic of Egypt on the delimitation of EEZ was signed on 17 February 2003. It covers 5 articles and 2 annexes. This was published in Law of Sea Bulletin, No.52. This agreement was the first signs of the maritime delimitation dispute of the Turkey and "ROC". One year later information note by Turkey concerning its objections to the Agreement between so-called "ROC" and the Arab Republic of Egypt on the Delimitation of Exclusive Economic Zone, 17 February 2003 was published in Law of Sea Bulletin, No 54, in 2004. Following a examination of the said agreement, the Republic of Turkey has reached the view that the delimitation of the EEZ or the continental shelf in Eastern Mediterranean, especially in areas falling beyond the western part of the longitude 32°16'18", also concerns Turkey existing ipso facto and ab initio legal and sovereign rights, emanating from the established principles of international law and principles of equity importance was stressed in the note. Additionally, Turkey notices that there is no single authority which in law or in fact is competent to represent jointly the Turkish Cypriots and the Greek Cypriots, consequently Cyprus as a whole (Law of Sea Bulletin, No.54, p.127).

A year later, the Greek Cypriot administration reaction to Turkey's response was placed in Law of Sea Bulletin, No 57 in 2005. In this text, the Greek Cypriot administration claimed that Republic of Turkey's allegations is "vague and unfounded", both in law and in substance. Turkish arguments were defined as "null and void" (See more details to Law of Sea Bulletin, No.57, 2005, p.125). After these reactions of the Greek Cypriot administration, Turkey published a note verbale dated on 4 October 2005, from the Permanent Mission of Turkey to the UN addressed to the Secretary-General of the United Nations. It was published in the Law of Sea Bulletin, No.57 in 2005. Turkey refutes the Greek Cypriot claims and stressed the delimitation of maritime areas creates obligations for all States, additionally, mentioned in the bordering an enclosed or semi-enclosed sea, such as Mediterranean sea is under the obligation to cooperate with each other in the exercise of their rights and in the performance of their duties. And again points out there is no single authority in Cyprus (Law of Sea Bulletin, No.57, 2005).

Note verbale dated on 19 October 2006 from the Permanent Mission so-called "Republic of Cyprus" to the United Nations addressed to the Secretary-General of the United Nations concerning the communication dated 4 October 2005 from Turkey (Law of the Sea Bulletin, No. 62). Turkey accused of continues to "illegally occupy" a part of the maritime zones of the "ROC" and prevents the latter from exercising effective control over a part of its "sovereign territory" (See more details in Law of Sea Bulletin, No.62, p.164).

In fact, Turkey's objections to related so-called EEZ agreement with Egypt prove the invalid structure of this treaty in international law. Greek Cypriots continue to act as a single authority of the island. As finally, they announced their first licencing round offshore for the award of hydrocarbon exploration licences.

The Greek Cypriot Administration subsequent hydrocarbon exploitation licenses in eleven (11) Exploration Blocks within the claimed Exclusive Economic Zone ("EEZ") of "Cyprus", which licensing round had been announced on 15 February 2007. A rele-

vant Notice was published in the Official Journal of the European Union to the above effect by the Government of Cyprus (Antoniou and Demetriadi, 2015). The 1st Licensing Round had been based on the MC2D-CYP2006 seismic data that were acquired in 2006. Following extensive negotiations, the Government of Greek Cypriots awarded an exploration license for the area in the EEZ identified as block 12 ("Block 12") was granted to Noble Energy International Ltd ("Noble") on 24 October 2008. In October 2013, Noble carried out appraisal drillings in Block 12. The results have confirmed natural gas reserves of 3.6 to 6 trillion cubic feet (tcf), with a gross mean of 5 tcf (14 November 2012, Cyprus Gas News).

In 2010, Lebanon submitted to the UN a chart of geographical coordinates defining the western, northern and southern limits of its Exclusive Economic Zone. The chart unilaterally delimits the Lebanon-Israel maritime border and extends Lebanon- "Cyprus" maritime boundary southwards, such that it differs from the 2007 Lebanon- "Cyprus" bilateral agreement which was not ratified by Lebanon (Ben-Ari, 2012, p.21).

In fact, Lebanese Parliament did not ratify this agreement, however, but another delineation of its own EEZ was adopted by the Council of Ministers (Decision No 51) on 21 May 2009. Contrary to the 2007 agreement, the 2009 delineation that will be confirmed with a list of geographical coordinates sent to the UN Secretary-General in July and October 2010, adding the six points of 2007 north and South limits of the EEZ, providing new coordinates for triple-point border in the North (with Cyprus and Syria) and in South (with Cyprus and Lebanon). These two numbers added point 7 (North) and 23 (South) are respectively the northwest and southwest limits of the Lebanese EEZ (Meier, 2013, p.3).

Turkey's made these efforts stance should TRNC and both TC's legitimate and legal rights in the eastern Mediterranean and the interests of the present, he shall be committed to the protection of the rights and interests, it has announced that it will not be allowed to attempt for them to wear. Thus, the GCA of agreements with countries where laws or related interests in this regard was emphasized that no provision in terms of Turkey (No.18,30 January 2007 Statement of the Ministry of Foreign Affairs).

In October 2008, Texas-based Noble Energy is granted an exploration licence for Block 12 for an initial period of three years. After one month later, in November 2008, Turkish naval vessels did not give any permission to any Greek Cypriot or foreign vessels conducting seismic exploration for hydrocarbon deposits in waters of the South of the island, because of Turkey's continental shelf region is violated. 12 block is the main dispute era which Turkey is not recognizing the proclaimed blocs. Because all these are the part of the Cyprus issue. Whereas, the Greek Cypriot administration prefers a way to expand the problem through the sea. The main delimitation dispute with Turkey is directly related to the proclaimed 1, 4, 5, 6, 7 blocks which violate Turkish continental shelf era and the rest of the blocs are related to the protection of the Turkish Cypriots rights. About 12 blocks, Turkey mentioned that that was a provocative action. On the other hand, Turkey stressed that there are two different but equal nation in the island. One side cannot ignore the other. Because there is no single authority on the island.

Two years later, Cyprus and Israel made an agreement on the delimitation of EEZ. In December 2010 Noble Energy announces the discovery of the Leviathan gas field in

Israeli waters. The Leviathan gas field was the largest gas field in the Mediterranean Sea until the August 2015 discovery of the Zohr gas field off the coast of Egypt, only 6 km from Cyprus's Block 11("Italy's Eni finds 'supergiant' natural gas field off Egypt". Associated Press. 30 August 2015. Retrieved 25 October 2015.) It is the largest gas reservoir (between 18 trillion cubic feet to 22 trillion cubic feet) in the Mediterranean Sea until the August 2015 discovery of the Zohr gas field off the coast of Egypt.

After the discovery of the Leviathan gas fields in 2010, Lebanon argued that the field extends into Lebanese waters. Lebanon's Parliament Speaker Nabih Berri stated that Israel is "ignoring the fact that according to the maps the deposit extends into Lebanese waters," Agence France-Presse reported on June 9 (Jonathan Ferziger and David Wainer (June 24, 2010). "Landau Says Israel Could Use Force to Shield Gas Find". Businessweek. Retrieved 2 January 2011.). Israeli Minister of National Infrastructures Uzi Landau responded "We will not hesitate to use our force and strength to protect not only the rule of law but the international maritime law," in an interview(Jonathan Ferziger and David Wainer (June 24, 2010). "Landau Says Israel Could Use Force to Shield Gas Find". Businessweek. Retrieved 2 January 2011.)

In August 2010, Lebanon submitted to the United Nations its official view regarding the maritime border, indicating that it considered the Tamar and Leviathan gas fields to be outside Lebanese territory (though it indicated other prospective fields in the region may be within Lebanese territory). The US expressed support for the Lebanon proposal(Barak Ravid (2011-07-10). "U.S. Lebanon on the maritime border dispute with Israel". Haaretz. Retrieved 2012-01-30.) .

Until that time Greek Cypriot administration tried to show the main problem with Turkey is related the gas issue which periodically raised tensions, with Turkey demanding the Greek Cypriot postpone drilling until the solution of the Cyprus problem. Whereas, it was one of the parts of the maritime delimitation question with Greek Cypriot, not only drilling activities. Moreover, energy security is related to the state interests and energy companies' interests in the energy field that how they provide a safety. Therefore, Greek Cypriots used energy as a political weapon for expanding the maritime zones and tries to be an energy hub in the region.

The Greek Cypriot administration tries to carrying out-licensing activities and win a chance to infringe the Turkish maritime zones (32 18 16 E). In fact, Turkey determines to protect its maritime zones and Turkish Cypriots rights. Additionally, the Greek Cypriot administration ignores the realities of Cyprus dispute. As should be accepted that there are two different sovereign entity on the island and no one cannot represent each other. For that reason, Greek Cypriots cannot violate Turkish Cypriots inherent rights. On the other hand, the Greek Cypriot administration stresses that natural resources will be a federal competence in the event of a settlement of the Cyprus problem and, by implication, a shared resource. But to date, they have not been willing to discuss current hydrocarbons exploration within the context of settlement negotiations. Concerning the EEZ exploration rights, the international community support the Greek Cypriot position, although most international actors generally make it clear that the revenues should be shared with the Turkish Cypriots in the event of a solution. On contrary, Turkish Cypriots and Turkey argue that any offshore exploration or exploitation carried out or

authorized by the Greek Cypriots is the unilateral act of one community (Gurel and Mullen, 2014). The reality is that Greek Cypriot administration violates the maritime areas of Turkey and TRNC. Turkish Cypriots and Turkish rights are ignored by the Greek Cypriot administration, still, they are acting as a "unique representative of the island".

Indeed, in mid-September (19), 2011, Noble Energy commences exploratory drilling in Block 12 started. After this developments, In fact, Turkey made a strategy for protection Turkish Cypriots rights. Firstly, Turkey and TRNC signed a Continental Shelf Delimitation Agreement on 21 September 2011.

According to this agreement, the coordinates determined and partial delimitation has drawn. The meaning of this, there are other boundaries which will be drawn. Taking this provision, it should be stressed that this agreement is important in terms of ensuring the rights of both nations over the island. Also, this delimitation agreement considered the Greek Cypriot administration rights.

When Greek Cypriots explained the 12 Block is given to Noble Energy (then Delek Drilling participated), the permits to the Turkish National Oil and Gas Company (TPAO) is given a right for seismic research by TRNC's Economy and Energy Ministry over declared A, B, C, D, E, F, G (the related map will be shown in figure 32). This was based on Oilfield Services and Production Sharing Agreement signed between the TRNC Ministry of Economy and Energy and Turkish Petroleum Corporation (TPAO) on 2 November 2011. Contract to provide TPAO with exploration, well exploration and authorization for operation based on profit share. Turkey' Energy Minister explained that it is not yet clear what the Greek Cypriot Administration and the Nobel company will give to the Cypriot people. Turkey's Energy Minister stressed that: "We will make a very clear and transparent agreement here between Turkey and TPAO and we will sign an agreement which is very appropriate with international law and treaty based on the revenue sharing and production sharing model between TRNC and Turkey. Hence, the Nobel Energy Company and the Greek Cypriot Administration are not yet discussing what the Cypriot Administration will give to the Cypriot people, which is a matter of debate. Of course, all the values of the Cypriot people, whether North or South, in this work, carried out, it is absolutely necessary to share this information with the public.

The Minister of Energy of the TRNC explained "In the event of the drilling activities in Southern Cyprus, Turkey and the Turkish Republic of Northern Cyprus agreed on the agreement to deliminate the continental shelf, so that the common will was put forward and necessary steps were taken. In result, they can sign the 'Oilfield Services and Production Sharing Agreement' with regard to the authorization of TPAO for the allocation of lands and the petroleum and natural gas exploration in these areas. TRNC's Council of Ministers will authorize the exploration, drilling, and operation of TPAO as a contracting operator on the basis of a profit share. A contract to be signed between the Ministry and TPAO by a decision of authority dated October 27th, 2011. (KKTC ve Tpao Arasında 'petrol Sahası Hizmetleri Üretim Paylaşımı Sözleşmesi' İmzalandı, Haberler, 2 November 2011).

After the Nobel Energy exploration efforts on 19 September 2011, a reaction comes from TRNC a day later on 22 September 2011 and TRNC grant an exploration license to the TPAO to explore and exploit for oil and natural gas around the defined blocs. On

September 28, 2011, the Turkish seismographic vessel named Piri Reis and two Turkish warships come to the region. Piri Reis vessel searched in G area.

After two months, Nobel Energy announces the discovery of the Aphrodite gas field in Block 12.

The 2nd Offshore Licensing Round was a tendering process that took place and concluded within 2012, initiated through a notice from the Government of the Greek Cypriot administration was published in the Official Journal of the EU on 11 February 2012, inviting offers for the awarding of exploration and exploitation licenses within the "Cypriot". The 2nd Offshore Licensing Round resulting in awarding more hydrocarbons exploration and exploitation licenses to bidding parties.

Then, Greek Cypriots opened an international bid and called energy companies for a survey of the 12 blocks of disputed offshore areas on 14 February 2012. This led to the energy war paradox in Eastern Mediterranean. In the end, American Noble Energy, Russian Gazprom, French and Italian energy giants Total and ENI, as well as the Korean Gas Company and Gazprom subsidiary Novatec were licensed to explore gas in the disputed blocks (Anastasios Giamouridis, 2013,p.7). This development triggered the tension in the Eastern Mediterranean. Because, the Greek Cypriot administration announced the second offshore licensing round for blocks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 13 in 2012, February.

On 24 January 2014, the Greek Cypriot administration continued to sign contracts granting licenses for exploration of blocks 2, 3, and 9 to the ENI-Kogas consortium.

A month later, they signed another contract for granting the license for the exploration of blocks 10 and 11 to French multinational Total Company on 6 February 2013. A week later Greek Cypriot authorities signed agreements for the transfer of 30 percent of Noble Energy's exploration rights in Block 12 to Israeli companies named Delek Drilling and Avner Oil Exploration. In June 2013 Noble Energy began drilling work in Block 12. After four months later, Noble Energy announced results of the valuation drilling. The estimates for the Aphrodite field are gross mean reserves of 5 trillion cubic feet.

For reaction, it was announced that Turkey's first three-dimensional seismic ship "Barbaros Hayreddin Pasha" completed his work in the Black Sea and passed to the Mediterranean. Barbaro's vessel would make first the oil and gas exploration in Antalya then would go to the disputed era in the south of Cyprus (5 September 2013, Sabah newspaper). There are licenses belonging to TPAO for searching in the region which has the right to make a search in the south of Cyprus. The Barbaros Hayreddin Pasha vessel worked on behalf of TRNC and TPAO. As it is known, aftermaths of the Greek Cypriot administration and Israel EEZ Agreement in 2010, the Noble company reached the presence of natural gas in the 12th parcel. Following the unilateral stance of the Greek Cypriot side, TPAO announced that it had a license to make the seismic search in the south of the island under the agreement with the TRNC.

On December 2013, Noble Energy discloses that some 3 billion barrels of oil may lie in deepwater strata between Greek Cypriots and Israel offshore fields.

On September 25, 2014, ENI start drilling operations at the Onasagoras well in its Block 9 concession. This timeline is prepared by Elias Hazou in Cyprus Mail, dated 29 December 2016 which continues as below;

"On October 2014: Greek Cypriot leader Nicos Anastasiades to pull out of peace talks with Turkish Cypriots for the reason of the Barbaros Hayreddin vessel seismic survey in Eastern Mediterranean (on 21 October 2014). Turkey issues a new marine advisory, sending the Barbaros, and again reserving areas for exploration in the eastern Mediterranean"(Elias Hazou in Cyprus Mail, dated 29 December 2016). Aftermaths, Filelefthеros informed that GC National Army had been in a high alarm since the day of Barbaros and its accompanying military vessels in the eastern Mediterranean, used the news of "National Guard Army in High Alarm Condition ... Army Red Alarm" (21 October 2014, Detay Kıbrıs).

One month later, in November 2014, the energy conference in Nicosia was regulated. In this conference, "Noble Energy announced that it is shelving plans for a land-based Liquefied Natural Gas (LNG) facility. Regional pipelines are discussed as top priority subject. After that in December 2014, ENI announced it has not found commercially exploitable natural gas at the Onasagoras well"(Elias Hazou in Cyprus Mail, dated 29 December 2016).

"At the beginning of 2015 January, ENI began exploratory drilling at Amathusa well in Block 9. On March 2015, the Greek Cypriot government announces that ENI has not found commercially exploitable gas reserves at the Amathusa well. On April 2015, by assessing the UN, Turkey agrees not to renew its marine advisory, and to withdraw the Barbaros from TRNC. On June 7, 2015, the Block 12 partners, Noble Energy, Delek, and Avner, declare the Aphrodite gas field commercial and the partners submit to the government the Development and Production Plan for Aphrodite"(Elias Hazou in Cyprus Mail, dated 29 December 2016).

"In August 2015, ENI announces the discovery of the Zohr gas field in Egyptian waters. The largest to-date gas field in the Mediterranean Sea, Zohr holds an estimated 30 trillion cubic feet of lean gas in place. It lies six kilometres from Cyprus' Block 11 and 90 kilometres from the Aphrodite gas find in Block 12. On December 28, 2015, the Greek Cypriot cabinet approved a request by the ENI-Kogas consortium to extend its exploration activities by two more years. Concessions were renewed for offshore blocks 2, 3 and 9. The consortium's concession was due to expire in February 2016, now extended to February 2018. In December 2015, the Greek Cypriot cabinet approves the renewal of Total's exploration concession on Block 11 for a period of two years, to February 2018. In January 2016, the GCs Energy Ministry announces that BG "Cyprus", subsidiary of British multinational oil and gas company BG Group, has joined the Block 12 consortium with a 35 percent stake" (Elias Hazou in Cyprus Mail, dated 29 December 2016).

"On February 2016, the Greek Cypriot administration announced the third offshore licensing round putting up for auction blocks 6, 8 and 10. The bids subsequently submitted are Block 6: ENI/Total Block 8: Capricorn Oil/Delek Drilling, ENI Block 10: ENI/Total, Exxon Mobil/Qatar Petroleum, and Statoil. Currently, blocks 2, 3, 9 and 12 are licensed. Total had held the concession on Block 10 but relinquished it last year after failing to identify targets. The block is located on the southern edge of Cyprus' EEZ and

is in close proximity to Egypt's EEZ and the massive Zohr prospect" (Hazou, A Vote for a Confidence…24 March 2016, Cyprus Mail).

On December 21, 2016, the Greek Cypriot government announced the preferred bidders in the third licensing round. The preferred bidders are the consortium of Exxon-Mobil and Qatar Petroleum for Block 10; the consortium of ENI and Total for Block 6; and ENI for Block 8.According to Greek Cypriot energy minister, Giorgos Lakkotrypis, decisions to award concessions are expected in late January or February 2017.

From 2007 to 2017, the Cypriot administration continues energy activities that violate Turkey's maritime jurisdiction, while blocking the rights of the Turkish Cypriots which blocks are declared unilaterally. In fact the delimitation of the exclusive economic zone or continental shelf between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution (article 74(1),article 83(1)). The delimitation with agreement doesn't envisage infringe the other' continental shelf or EEZ or give an official right to make drilling activities on overlapping borders. As it seen that Greek Cypriots violate the international law. Hence, the article of 78 is violated by Greek Cypriots. In accordance of article 78(2), the exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.

As it is known that the last step by the Greek Cypriot administration happened over new license agreements with international agencies on April 5 and 6 2017, signed a third permit for investigations in blocks 6, 8 and 10 of the claimed Exclusive Economic Zone.

ENI and TOTAL for the 6th block, ENI for the 8th block and ExxonMobil and Qatar Petroleum for the 10th block were selected for the third permit. Turkey, on the other hand, stated that it would not allow it because it violates their maritime jurisdictions. Also, the 8th Region is within the scope of TRNC's authorization which conducted research by TPAO.

After this provocative step by the Greek Cypriot administration, Turkey has issued a naval report called Navtex. A wide range of seismic surveys, including the Cyprus deficit, was scheduled to begin in this framework between 21 April and 30 June 2017. The investigations will be carried out by the support of Bravo Supporter vessel who will be accompanied by Barbaros Hayreddin Seismic Search Ship.

The Greek Cypriot government explained that if the Turkish seismic search vessels come to the region and start research, they will be given the necessary answer based on international law. Turkey opposes the one-sided natural gas drilling that will be launched by the Greek Cypriot side in July due to the fact that the Turkish side also has the right to natural resources. Additionally, TRNC's oil exploration rights are given to Turkish Petroleum Corporation. The Barbaros Hayreddin Pasa seismic search vessel, which began its operations in the Mediterranean on April 21, will continue its activities in the Mediterranean until 31 May 2017. According to daily Kathimerini, the consortium of the TOTAL-ENI, in the so-called Southern Cyprus Exclusive Economic Zone, the first drilling will be done on July 13, 2017, that runs parallel timetable attention (24 April

2017, AB Haber).

All these developments show that even if, both sides are dragged to the point where they will arrive at the threshold of hard power in 2018. But it is clear that tension and instability will continue in this process and afterwards.

6. The Latest Crısıs In 2018

In the mid of the January, Turkey's Energy and Natural Resources Minister Berat Albayrak had said a ship would be sent "as soon as possible"(Turkish side's gas moves 'exacerbate tensions',16 Jan 2018, Cyprus Mail, http://cyprus-mail.com/2018/01/16/turkish-sides-gas-moves-exacerbate-tensions/). This was the warning to the GCs drilling activities in the Mediterranean. Then Turkish Foreign Ministry Mevlüt Çavuşoglu made an interview with Ekathimerini newspaper and explained that Block 6 of Cyprus's so-called exclusive economic zone (EEZ), where hydrocarbon exploration is already taking place, is within Turkey's continental shelf, while reiterating claims by the country that there is no sea border between Greece and South Cyprus. Çavuşoğlu stressed again that 2003 agreement between Egypt and Greek Cypriots are null and void which reiterated Turkey's objection to UN that this so-called EEZ agreement that the violates Turkey's continental shelf in areas falling beyond longitude 32' 16' 18" west. Greece is another part of the dispute. Greek Cypriots, Egypt and Greece are planning to make triple delimitation in Eastern Mediterranean without considering Turkey's continental shelf rights and TCs. In this concern,Çavuşoğlu mentioned that Turkey has also submitted to the UN our objection to the Greek hydrocarbon law (4001/2011), which contradicts the well-established rules and principles of international law by attempting to unilaterally define "the outer limits of the Greek continental shelf boundaries through a median line between continental land masses and insular formations, in particular such as the very small island of Kastellorizo (Meis)" . As the result, Çavuşoğlu warned the sides that "Turkey fully exercises its sovereign rights over its continental shelf. No foreign country, company, or vessel may conduct any unauthorized hydrocarbon or scientific research activity on Turkey's continental shelf and the marine areas superjacent to it. This is a very clear fact"(Turkey maintains a tough stance on Cyprus in Kathimerini interview, 6 February 2018, Vasilis Nedos, Ekathimerini Newspaper, http://www.ekathimerini.com/225524/opinion/ekathimerini/comment/turkey-maintains-tough-stance-on-cyprus-in-kathimerini-interview).

The latest crisis exists with ENI's drilling plan in Block 3. ENI is the operator of Block 6 with 50 percent of participation interest while Total is a partner with the remaining half. ENI has been present in South Cyprus since 2013 and detains interests in six licenses located in the EEZ of Cyprus (in Blocks 2, 3, 6, 8, 9 and 11), five of which are operated ('Saipem 12000 will remain in position until situation is resolved'11 February 2018, Cyprus mail, http://cyprus-mail.com/2018/02/11/saipem-12000-will-remain-position-situation-resolved/) "The Italian hydrocarbon company has also 100 percent of the rights for block 8. It is also part of a consortium with Total for block 11 and with South Korea's KoGas for blocks 2, 3 and 9 of the EEZ. Italy's energy giant Eni said that it made a lean gas discovery off the coast of Cyprus after drilling an exploratory well at Calypso, the target of exploration in block 6 of the island's exclusive economic zone

(EEZ)".(Stephania Orphanides, Eni made important gas discovery in block 6, minister says (Update-1)8 February 2018, Cyprus business mail, http://cyprusbusinessmail.com/?p=59146).

Eni was planning to drillship in the Cuttlefish field, in block 3, for a new exploratory drill. The target in block 3 is codenamed 'Soupia' (cuttlefish). But Turkey has issued a new NAVTEX (navigational warnings) in the region. Turkey has reserved for 'military training' a large swathe of sea area off Famagusta Bay extending to within 30km of the location of an upcoming gas drill in Cyprus' offshore block 3. Navtex 0153/18, issued by the Antalya Station, was effective on 12 February 2018 until 22 February.

The Greek Cypriot administration points out that "To us, these [Turkish] Navtex, these notices to mariners, do not exist. They have already been cancelled, and no one takes them into account or imparts any legitimacy to them." (Elıas Hazou, Turkish Navtex will not affect drilling plans, govt says, 25 January 2018, Cyprus Mail, http://cyprus-mail.com/2018/01/25/turkish-navtex-will-not-affect-drilling-plans-govt-says/)

"The reserved area is some 3,740 square kilometres, starting from just 25km off Cape Greco and covering a large part of block 3. At its southernmost boundary, the reserved area is reportedly just 30 km from the target selected by ENI and Kogas for conducting an exploratory drill in early February. The entire area reserved by Turkey comes within the Nicosia Flight Information Region (FIR), which is almost interchangeable with Cyprus' Search and Rescue Area of Responsibility.In response, Cyprus issued a Navtex of its own, notifying mariners to disregard the Turkish navigational warning.Coming back, Turkish authorities issued a new Navtex (0155/18), claiming to nullify the Cypriot Navtex which sought to nullify the original Turkish notice to mariners. The Saipem 12000 drillship, leased by ENI, is currently located in block 6 – licensed to ENI and Total. Once finished in block 6, the drillship will immediately head out to block 3, at a drilling site dubbed 'Soupia' (Cuttlefish).Turkey maintains that "Cyprus" cannot unilaterally exploit its offshore natural gas resources without including the Turkish Cypriots" (Elias HAzou, Turkey issues new Navtex warning, Cyprus Mail, 29 January 2018, http://cyprus-mail.com/2018/01/29/turkey-issues-new-navtex-warning/).

On the other side, the Turkish Cypriot 'foreign ministry' said " it would not accept the extension of ENI's activities into Block 3, which it claims for the 'TRNC' and accused the Greek Cypriots of raising tensions in the region. Turkey meanwhile is laying claim to sections of blocks 1, 4, 6, and 7 in Cyprus' EEZ saying the areas in question are part of its continental shelf" (Evıe Andreou, Diplomatic steps taken to avoid escalation over drillship, Cyprus Mail, 11 February 2018, http://cyprus-mail.com/2018/02/11/diplomatic-steps-taken-avoid-escalation-drillship/).

The escalation still continues. In a two days of above mentioned crises, Turkish President Tayyip Erdogan on 13 February 2018 warned South Cyprus not to "overstep the mark" in the eastern Mediterranean after Turkey sent warships to interdict a vessel exploring for natural gas over the weekend. Speaking to members of his ruling AK Party in parliament, Erdogan said Turkish warships and security units were monitoring developments in the region."We warn those who overstep the mark in Cyprus and the Aegean," he said. Then, the European Union on Monday,13 Feb.2018, called on Turkey to avoid threats and "refrain from any actions that might damage good neighbourly" ties

after Cyprus accused the Turkish military of obstructing a drillship contracted by Italy's state-controlled ENI. Greek Cypriot leader, Nicos Anastasiades said:"There is no cause for concern". (Elias Hazou, Cyprus should not 'overstep the mark' after ship incident, Erdogan says (Update 1), 13 February 2018, http://cyprus-mail.com/2018/02/13/cyprus-not-overstep-mark-ship-incident-erdogan-says/).

Aftermaths of these events, the Greek Cypriot administration continued to protest Turkey. Whereas UN Secretary-General Antonio Gutteres gave a speech about crises and stressed that all concerned parties should do their utmost to defuse tensions(Cyprus solution would resolve dispute says UNSG, diplomatic efforts ongoing (Update 1), 14 February 2018, Cyprus Mail, http://cyprus-mail.com/2018/02/14/cyprus-solution-resolve-dispute-says-unsg/) Greek Cypriots found this explanation not enough and urgently decided to meet with EU.

Besides, TRNC president Mr Akıncı also made a press release over the crises. According to Akinci, the Greek Cypriot side was currently benefiting from the deterioration of Turkey's relations with some countries in the region, and in cooperation with Greece, was attempting to conclude EEZ alliances with countries such as Egypt, Israel, and Jordan. It was also trying to put Turkey into conflict with the 'big powers', which was evident, he said, from the companies they chose to carry out exploration such as France's Total, Italy's ENI and US companies such as ExxonMobil and Noble Energy. "By licensing these companies, in a sense, the Greek Cypriots are attempting to place Turkey in the confrontation with these states," said Akıncı.. (Akıncı suggests interim solution could end EEZ standoff – reports, 18 February, Cyprus Mail, http://cyprus-mail.com/2018/02/18/akinci-suggests-interm-solution-eez-standoff-reports/). In result, Turkey announced its new NAVTEX which military operations in the Mediterranean will continue until 10 March. This was led the protest again by the Greek Cypriots and urgently planned to take some measurements. On the other side, ENI announced that it will leave in the 3rd block, but protect its rights in Cyprus. Whereas GC administration is planning to continue their illegal drilling activities in the second half of the year .Hence, in the mid of the year "the consortium of US ExxonMobil and Qatar Petroleum is scheduled to carry out two drillings in block 10"(By Stelios Orphanides, Eni made the important gas discovery in block 6, minister says (Update-1)8 February 2018, Cyprus business mail, http://cyprusbusinessmail.com/?p=59146). It seems that in the mid of the year, nothing will change. Greek Cypriots should aware that they can not ignore the Turkish Cypriots rights and cannot violate Turkey's continental shelf. Otherwise, they will be responsible for all results.

7. Conclusion

In fact, all related EEZ agreements of the Greek Cypriots with third parties seem the reproducing energy policy, whereas the real intention is the securitization of the maritime zones. The provocative steps by Greek Cypriots increase the instability of the energy security.

The main intentions of the Greek Cypriots are the driving force for presenting the issue as an existential security threat by securitizing acts. Of course, energy security can be conceptualized as a security sector. However, securing maritime laws affects its local,

regional and international arena. The main subject matter of dispute is related to the violations of the maritime national jurisdictions of Turkey which has been the vital issue. Undoubtfully, it can be claimed that Eastern Mediterranean-bordering countries are increasing energy activities in the region as changing environmental conditions provide access to new natural resource deposits. This makes Eastern Mediterranean countries as jockeying for power by re-mapping the sea floor and increasing their military presence, driving new security and diplomatic concerns that carry strategic significance for Turkey.

The regional and international peace can only be provided with taking into consideration of case awards of the arbitrary courts and international maritime law which aim to reach an equitable result. The bilateral negotiations are necessary. Moreover, the maritime boundary delimitation negotiations of parties should envisage the equity with taking into relative circumstances. Without taking into consideration Turkish Cypriots and Turkey's rights in the region, energy security will be at risk with political instabilities of the region.

In sum, "the Greek Cypriot Administration does not represent in law or in fact the Turkish Cypriots and Cyprus as a whole. As such, the Greek Cypriot Administration is not entitled to negotiate and conclude international agreements as well as adopt laws regarding the exploitation of natural resources on behalf of the entire island. Turkey's position is very clear: this issue should be a part of the comprehensive settlement in Cyprus" (MFA of Turkey, Greek Cypriot's Unilateral Activities in The Eastern Mediterranean, 2018).

On the other side, the securitization of the maritime rights which accepted as sovereign rights will increase the instability, because Greek Cypriot's unilateral action in the Eastern Mediterranean Sea will not bring a peace and security. No State cannot has the right to infringe others maritime zones. For this, the Greek Cypriot administration has to give up keeping the maritime delimitation dispute out of the meeting in the Cyprus negotiation process.

Contrary, apparently energy, but in reality maritime jurisdictions have been securitized in order to protect their national interests which have been concluded militarization in the name of the protection claimed EEZ by Greek Cypriots.

As result, today, the Greek Cypriot administration;

-Tries to create cut off effect or close the Mediterranean Sea against Turkey and TRNC

-Tries to violate Turkish Cypriots rights overseas including energy welfare and other rights

-Tries to have and control FIR air zone in regards to the whole "Cyprus"

-Tries to develop and increase the activities of arming and militarization within the framework of Search and Rescue Exercises against Turkey

- In short, spreading its claimed "sovereignty" over the sea wants to draw a new trilateral EEZ with Greece, Egypt and "ROC" and by this way, to have sea and air areas in the Mediterranean and the Aegean. Although, the desire to hold in the hands of many field authorities such as capturing all energy fields, extending fishing era, install the artificial islands in the whole island as a unique entity.

As conclusion, I should argue that the dispute creates a blind node in the region which could bring increasing tensions (hot maritime zones conflict) in further progress. The time has been come to think again an idiom that "good fences make good neighbours". Although Turkey, due to its position, is suitable for being an energy transition centre (hub); however relevant factors and rights of Turkey's and TCs still ignored by the international community. Hence Turkey determines to protect Turkish Cypriots rights not only regional at international level.

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