

ENERGY AS A FINANCIAL SOURCE FOR TERRORISM

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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 expedencies. 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 Costs²

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.

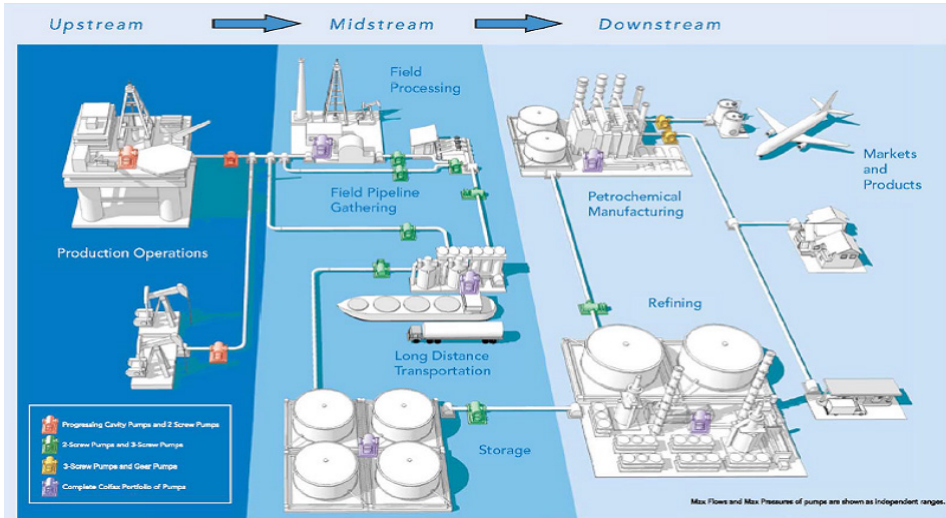
According to the BP Statistical Review of World Energy Report, daily registered crude oil production in 2016 is around 96 million barrels per day⁵. Which means, with an average oil price assumption as 60 \$ per barrel, around 2,1 trillion \$ per year.

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 below shortly describes the general flow of oil from the production to the markets.



Graph 1: Upstream to Downstream Oil Flow⁷

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 distills 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	√	√	√	√	√	√	√	√
S a u d i 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

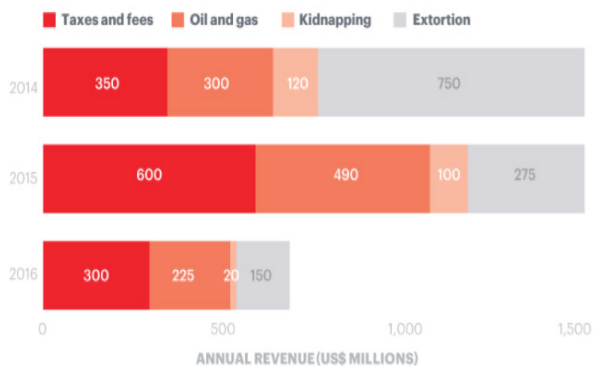
“Moderate estimates suggest 150,000 barrels of crude oil are stolen every day in Nigeria. The vast majority of this is sold internationally.”⁹

“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 – 2016¹²

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),

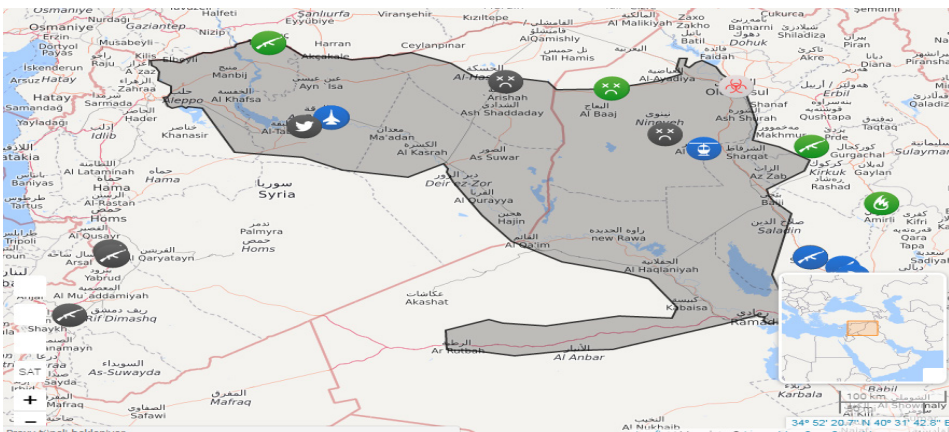
By building a natural wall between; in Iraq the central government and KRG, in Syria again the Esad forces and PYD, making those Kurdish organizations to resurge

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.

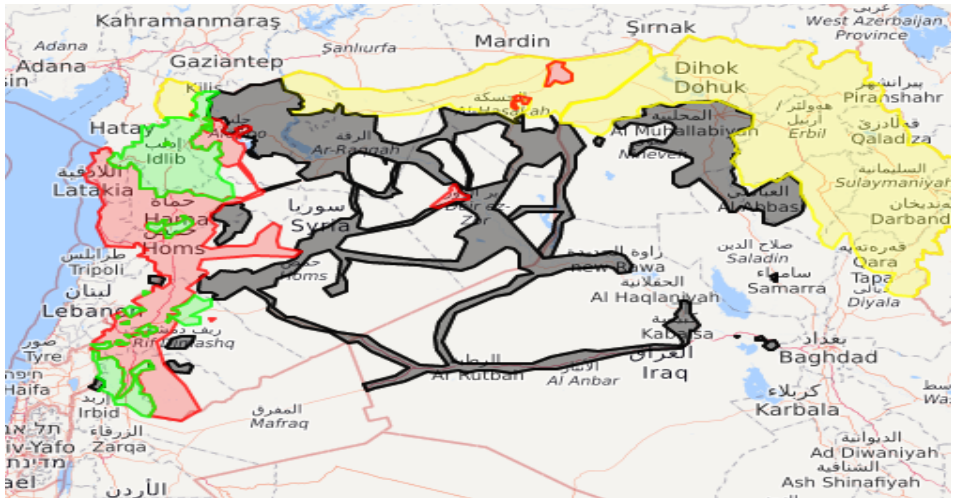
These maps below show how the dynamics in the region changed between the years 2015 – 2018.



Map: 1 January 2015 DAESH

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 US Dept of State Geography

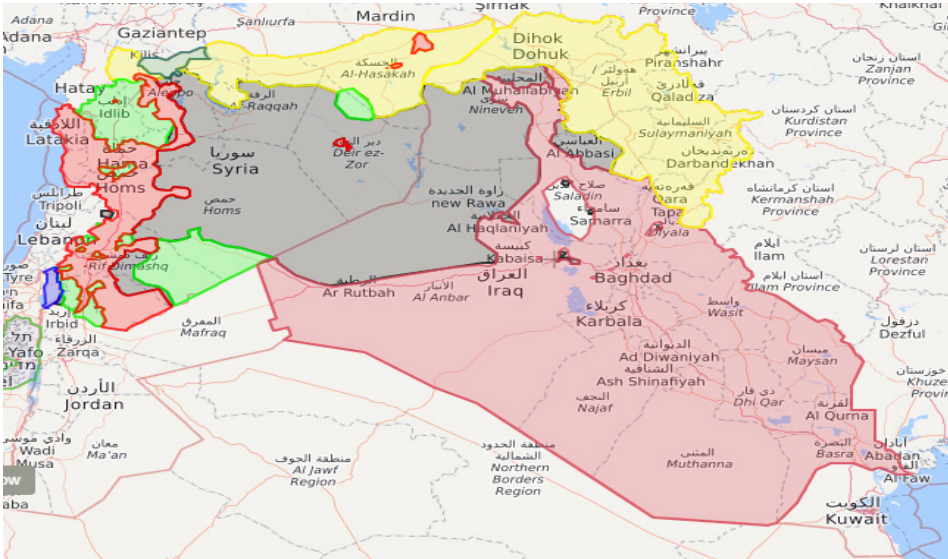
By continuing with the next map, it can be observed that DAESH tried to control some of the important oil and gas bearing regions and step by step, left the captured areas in Syria for the new puppet PYD. (And also in Iraq left the captured areas to the KRG)



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

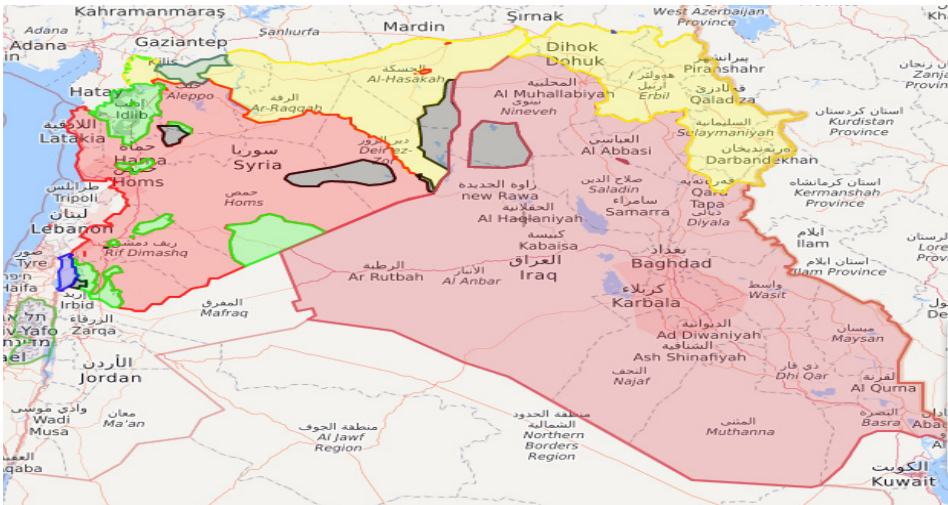
- While DAESH was leaving floor to PYD to complete the Kurdish Corridor, Turkey changed the balances with Euphrates operation.

- 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.

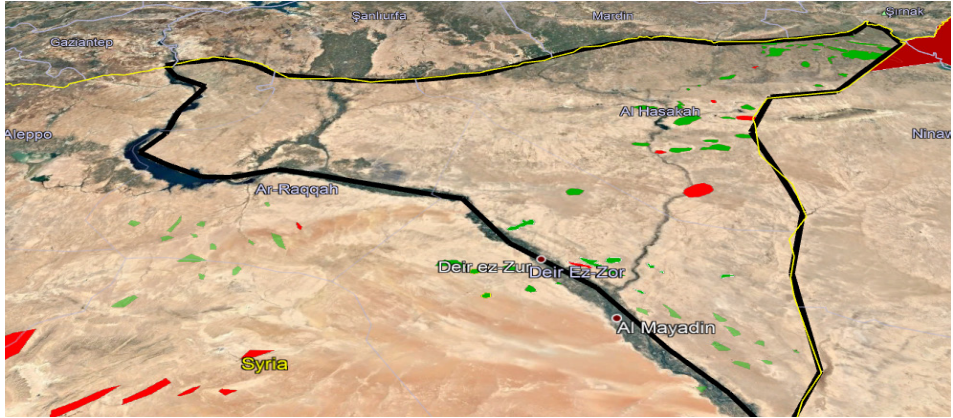


Map 5: 1 January 2018 DAESH & PYD

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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