

its frontiers or boundaries. The issues related

to terrorism are addressed only by RHIPTO and

INTERPOL under their respective mandates.

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Acronyms & abbreviations

AQIM al-Qaeda in the Islamic Maghreb

bpd barrels per day

CAR Central African Republic

CIA Central Intelligence Agency

coltan columbite-tantalites

DRC Democratic Republic of the Congo

FARC Revolutionary Armed Forces of Colombia-People's Army

GDP gross domestic product

HTS Hay'at Tahrir al-Sham

INTERPOL International Criminal Police Organization

IUU illegal, unreported and unregulated

JNIM Jama'at Nasr al-Islam wal Muslimin

KDF Kenya Defence Forces

Preface

Peace, development and security are the most crucial concerns for any country. Yet national and international efforts are increasingly undermined by criminal networks. Indeed, transnational organized crime is infiltrating every corner of society, and continues to diversify its scope of operations.

Of particular concern has been the growth and convergence of criminal networks exploiting governance weaknesses during local conflicts and sustaining non-state armed groups and terrorists.

This atlas identifies more than 1,000 routes used for smuggling drugs and natural resources as well as human trafficking. The report provides the first consolidated global overview of these illicit flows and their significance in conflicts worldwide. It also forms a foundation for further development of actionable intelligence.

The findings reveal that the incomes of non-state armed groups and terrorist groups are diversifying and becomingly increasingly based on organized crime activities, sustaining conflicts worldwide. Illegal exploitation and taxation of gold, oil and other natural resources are overtaking traditional threat finance sectors such as kidnapping for ransom and drug trafficking.

At the same time these non-state armed groups only take a fraction, around 4 per cent, of all illicit finance flows by organized crime in or near conflicts. The implication is that combating organized crime must be considered a significant factor in conflict prevention and resolution.

This report provides a new impetus for our continued efforts to stem these illicit flows and combat the threat posed by transnational organized crime in terms of peace, development and security.



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Introduction:

Environmental crime has become largest financial driver of conflict

This atlas of illicit flows presents over a thousand smuggling routes worldwide of goods and services associated with environmental crimes, drugs and people. Conflict and terrorism are today funded on an unprecedented scale by transnational organized crime and by illicit revenue from natural resources. While it is not possible to establish with certainty the exact value of revenues flowing to criminalized groups and non-state armed groups, it is possible to generate a rough snapshot based on the major non-state armed groups.

The proceeds of environmental crime – which encompasses not just wildlife crime, but also fuel smuggling and illicit mining of gold, diamonds and other minerals and resources - have become the largest source of income for non-state armed groups and terrorist organizations. Combined, environmental crimes, including those that involve the sale or taxation of natural resources, account for 38% of the financing of conflicts and of non-state armed groups, including terrorist groups; followed by drugs (at 28%); other forms of illegal taxation, extortion, confiscation and looting (26%); external donations (3%); and money extorted through kidnapping (3%).1 This evidence-based report aims to quantify how these illicit flows finance the major non-state armed groups.

Broadly speaking, environmental crimes generate the single-largest overall threat finance to conflicts today. The lack of criminal investigation, enforcement efforts or attention from the international community has enabled environmental crime to provide a 'free ticket' to armed criminalized groups and war profiteers, and it is gaining increasing interest as a source of financing among insurgents, terrorist groups and criminal cartels, in addition to

their traditional financing sources from drug trafficking and kidnapping for ransom. The interest in natural resources is rising, especially gold and other minerals, and timber, among many armed and criminal groups, and this can be currently seen in the Great Lakes region of Africa, Colombia, Peru and Central America, and South East Asia.

The biggest source of revenue – that is, from one single illicit product category – for non-state armed groups in conflict is drugs, which, as mentioned, account for 28% of their funding. Most of this revenue comes from taxation of drugs by groups such as FARC and the Taliban. Illegally procured oil, gas, gasoline and diesel provides 20% of their income (this was the predominant source of financing for Islamic State in 2014 and 2015). Illegal income from oil is also crucial for organizations outside of the seven main global insurgent and terrorist groups discussed in detail here, including funding organized crime in conflict zones. Gasoline and diesel smuggling is a key source of criminal networks' financing particularly in parts of Latin America, Libya and Nigeria.

After drugs and oil, taxation and extortion, and illegal mining, follow, with both representing 17% of revenue. Then, kidnapping for ransom, and external funding and donations each represent 3%. Charcoal and antiquities constitute 1% each, but these categories feature more predominantly as financial sources in particular regions, especially charcoal. Combined, these illicit flows directly fund an estimated 96 900 full-time fighters, and an unknown number of part-timers, associated with the seven most notable non-state insurgent and terrorist groups, plus the multitude of non-state armed groups active in north-eastern DRC.

Recent surveys by INTERPOL of member countries showed over 84% reported convergence of environmental crime with other forms of serious crime. Similarly, EUROPOL reported in 2017 that 45% of criminal groups in Europe were involved in several crime types – a sharp increase against the 2013 figure.²

Some 40 000 members of the Taliban totalled an estimated annual income of US\$75-95 million from taxation - particularly of drugs, land and agricultural produce - and from donations from abroad. In mid-2017, Islamic State made an estimated US\$10 million a month.3 Today, with dramatic losses of territory, Islamic State probably has at their disposal no more than a quarter of this. This comes largely from confiscations and illegal taxation. In all likelihood, they also have considerable reserves, of an unknown size. This figure is 98% down from their high of US\$549-1 693 million in 2014.4 The merged al-Qaeda groups Hay'at Tahrir al-Sham (HTS) in Syria and Jama'at Nasr al-Islam wal Muslimin (JNIM) in the Sahel make an estimated US\$18-35 million and US\$5-35 million, respectively, from illegal taxation, donations, kidnapping for ransom, extortion, smuggling of counterfeit cigarettes, drugs and illegal taxation.

Al-Shabaab receives an estimated US\$20 million, half from the illicit charcoal trade and the rest from other forms of taxation,⁵ while Boko Haram made an estimated US\$5–10 million mainly from taxation, bank robberies, donations from other terrorist groups and kidnapping for ransom. Over 8 000 rebels⁶ inside the DRC make at least US\$13 million⁷ a year from the exploitation and taxation of natural resources – and this sum is but a small portion of the total estimated value attributed to illegally exploited resources in the eastern DRC, which has been put at over US\$770 million a year.

The smuggling and facilitation of migrants along the trans-Saharan routes have evolved into a highly lucrative industry for armed groups, with an estimated annual revenue of US\$450–765 million (of which US\$89–236 million is accounted for within Libya alone).8 Organized criminals use smuggling networks that also increasingly enable foreign fighters to move across borders to safe havens, and to stockpile or ship resources by means of formal and informal networks of financial flows. Over 2 600 unaccounted-for (predominantly Islamic State) foreign fighters have left Syria and Iraq, an unknown number of them via Libya, using these illicit smuggling networks, and they use them to get access to forged papers, as well as routes to safe havens.

Collectively, for the seven main extremist groups of insurgents and terrorists (referred to above) – al-Shabaab, Boko Haram, FARC, HTS, JNIM, Islamic State and the Taliban, plus the DRC fighters, the combined funding totals about US\$1–1.39 billion a year. Taxation of natural resources and drugs is the most significant, readily available and accessible source of income, ranging from taxation of vehicles at checkpoints, agricultural produce, protection money targeting commercial activity to religious taxes.

The 96 900 fighters who make up the seven extremist groups (and the DRC combatants) earn an average of US\$12 342 a year each. Although this is well above a typical combatant's 'salary', which can be as low as US\$100 a month, this amount also includes the funding for their campaigns, the cost of weapons, logistics, bribes and operations, and expenses for governance provision. In some cases, such as the Taliban and FARC, and most likely Islamic State too, a large amount is saved for future governance efforts.

Besides groups that are designated as terrorist organizations, and including regular organized-crime groups in and around conflict, the scale of criminal economies is in the US\$24–39 billion range (with profits far lower). This indicates that threat finance revenue to terrorism and major insurgencies represents about 4% of the total illicit finance to organized crime in or near conflict.⁹

This means that transnational organized-criminal groups targeting primarily natural resources and environmental crimes, in or near conflicts, get by far the largest slice of their revenue in conflict zones, often associated with corruption, and powerful political and military elites.

The costs to the natural and human environment, and to peace, sustainable development and security are severe, including development prospects for nearly two billion people, 535 million of whom are children,10 and causing forcible displacement of 65 million people,11 and with an estimated 127 000 people killed in conflicts (the figure is from 2017).12 Fragility, conflict and violence are critical development challenges that threaten efforts to end extreme poverty. The proportion of the extreme poor living in conflict-affected countries has been projected to rise to more than 60% by 2030.13 By comparison, the percentage of people living on only US\$1.9 a day globally has dropped from 44% in 1980 to 9.6% in 2015.14 Conflicts also drive 80% of all humanitarian needs. while they reduce gross domestic product (GDP) growth by two percentage points per year, on average, according to the World Bank.15

Environmental crimes, and associated transnational organized crime, which are often deeply embedded in state and non-state armed forces and the political

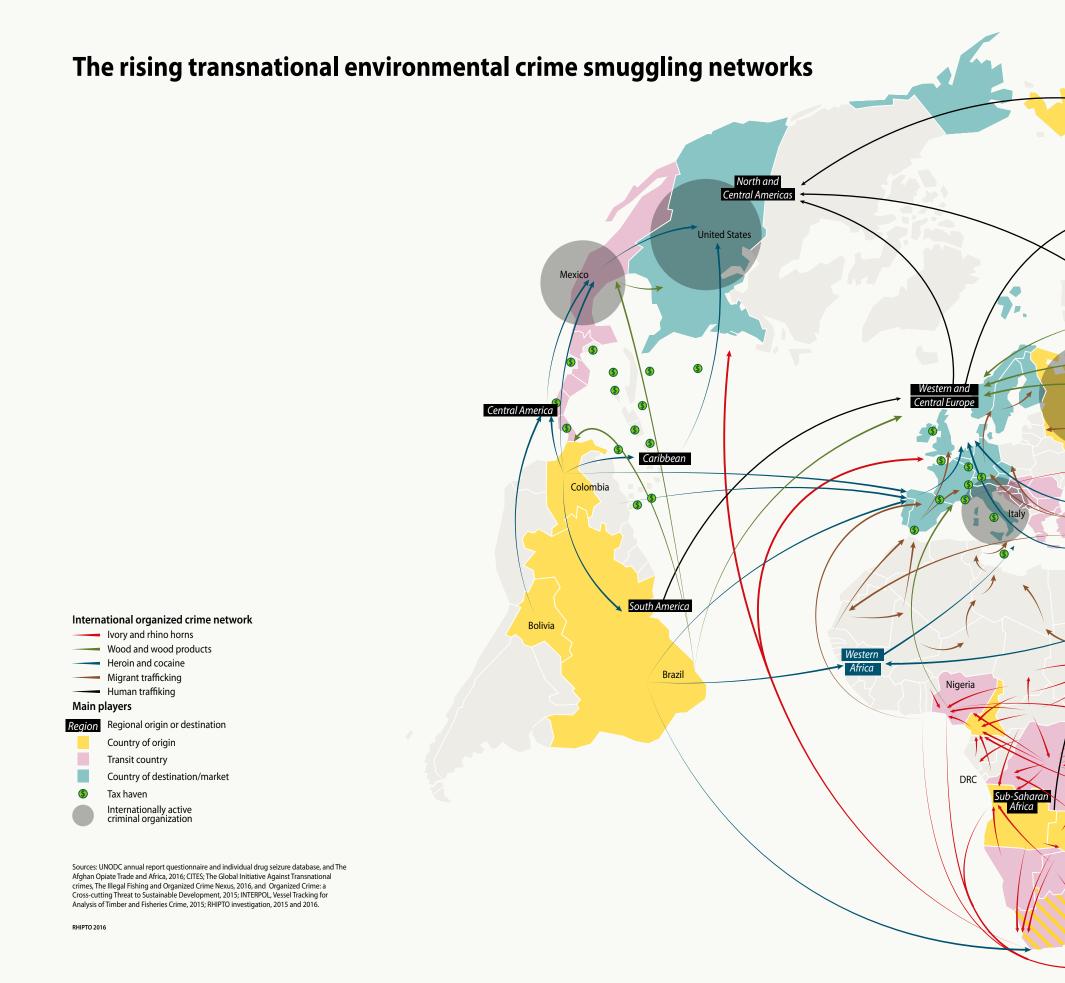
elite, are therefore directly stimulated by continued or renewed conflict in many of the world's most deadly contexts. Conflicts, and the resultant severe impact of lost development on the lives of a rising number of people, are likely to continue to increase until the role of the profiteers of organized crime in conflicts is addressed as a primary threat to peace, development and stability.

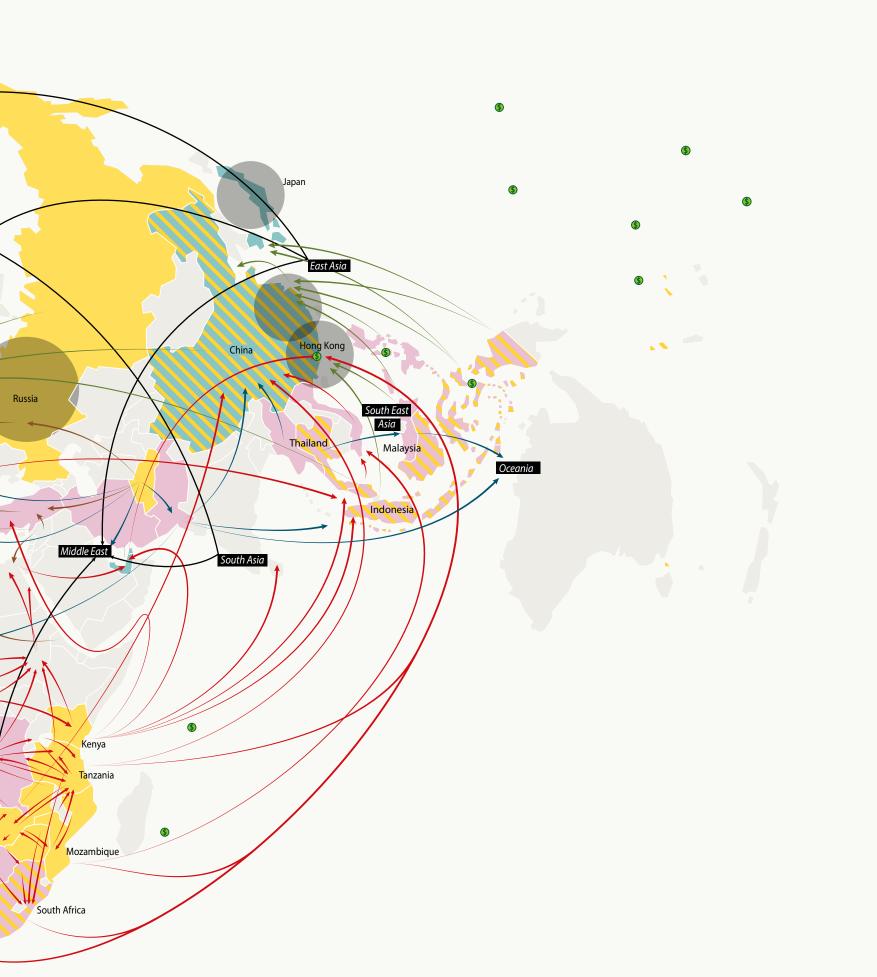
Environmental crimes have grown to the point where they account for 64% of illicit and organized-crime finance, or between US\$22.8 billion and US\$34 billion of the criminalized economy in fragile states in or near conflict areas. This threat must be addressed in peacekeeping and in enforcement and prevention, otherwise it will continue to grow and undermine development and security in decades to come.

Powerful elites engaged in organized crime gain from sustaining conflicts and fund non-state armed groups, which undermines the rule of law and good governance. This, in turn, enables criminal elites to benefit from instability, violence and lack of enforcement and, hence, their subsequent exploitation of illicit flows during conflict.

Strengthening information and analysis is essential to be able to prevent, disrupt and defeat both violent armed groups and the organized-criminal actors that provide these armed groups (and themselves) with an environment of impunity and instability.

In order to ensure early prevention and intervention in conflict, it is therefore imperative to forcefully address the role of organized crime and illicit flows in benefiting non-state armed groups and the powerful elites engaged in criminal activity.









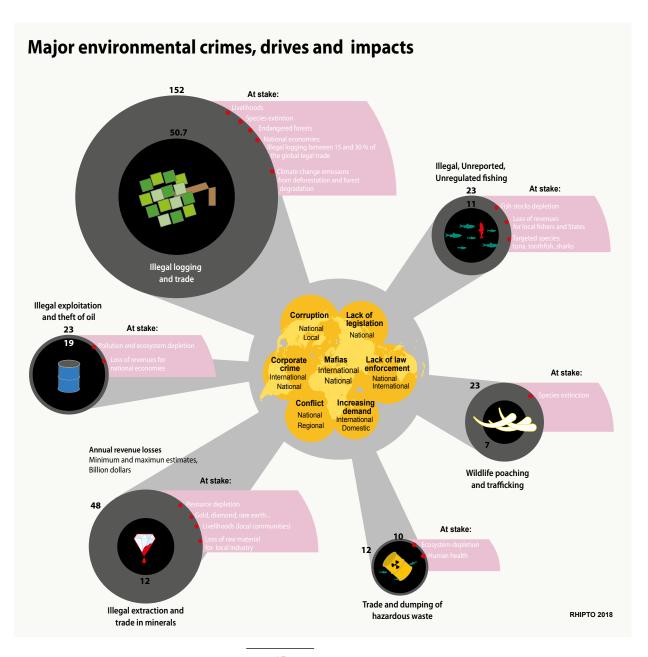


Environmental crime The largest conflict finance sector

The term 'environmental crime' is often understood to collectively describe illegal activities harming the environment and aimed at benefiting certain individuals, groups or companies through the exploitation and theft of, or trade in natural resources. The term encompasses serious crimes and transnational organized crime, often linked to other forms of crime, tax fraud, corruption and threat finance. In all these manifestations, environmental crime comes with massive costs to countries worldwide. 16

- Environmental crime is now estimated to be equivalent to US\$110-281 billion annually (2018 figures), an approximately 14% (9%-20%) increase from the previous official estimate in 2016 and 44% higher (32%-57%) than the first estimate in 2014, disregarding inflation. This is mainly a result of improved estimates and criminal intelligence, alongside the addition of illicit oil (which contributes about 9% of the total value).
- Environmental crime now slightly more lucrative than human trafficking, and is the third largest criminal sector worldwide, moving up from the 4th largest, after drugs, counterfeit goods and trafficking.
- The cost impact of environmental crime is rising by 5% to 7% annually, or two to three times the rate of the global economy.
- Forestry crimes including illegal logging, valued at US\$51-152 billion annually.
- Illegal fisheries: estimated US\$11-24 billion.
- Illegal mining: estimated at US\$12-48 billion.
- The illegal wildlife trade: estimated at US\$7– 23 billion.
- Forestry crimes, including corporate crimes and illegal logging, account for an estimated US\$51-152 billion.









- Illegal trafficking and dumping of toxic and electronic waste: US\$10-12 billion.
- Illegal exploitation and theft of oil previously unaccounted for due to lack of information – adds an additional minimum US\$19-23 billion to the total (or 9% of the total environmental crime figure).
- Loss of government revenue through lost tax income due to criminal exploitation is equivalent to at least US\$11-28 billion annually.
- Environmental crime is increasingly converging with other forms of organized crime, such as drugs, cybercrimes, corruption, tax fraud and money laundering.

The wide range in the values given above reflects the lack of statistics in this field, but these figures are based on best sources and criminal intelligence from INTERPOL and other sources. The cost impact makes environmental crime the third largest crime category in the world after drug trafficking (US\$344 billion), counterfeit crimes (US\$288 billion), with human trafficking (US\$157 billion) – fourth by some estimates.

Unlike any other known form of crime, environmental crime is aggravated by its impact on the environment and therefore its cost to future generations. Deforestation, dumping of chemicals and illegal fisheries (and others) damage the environment, causing loss of clean air and water, exacerbating extreme weather conditions, reducing food security and thereby threatening overall health and societal wellbeing. These crimes also deprive governments of much-needed revenue and undermine legal businesses.









Illegal trade and exploitation of fuel: Oil and charcoal

Illegally procured oil, gas, gasoline and diesel sales account for 20% of the income of non-state armed groups in conflict, and this segment was the predominant source of income for Islamic State in 2014 and 2015. Oil also features as a source of income for rebel groups and organized crime — derived from gasoline and diesel smuggling in parts of Latin America, Libya and Nigeria. Al-Shabaab makes an estimated US\$20 million, where half is from the illicit charcoal trade and the rest on other taxation.



of incomes to the largest armed groups are derived from oil and gas

Niger Delta

UNODC estimated in 2009 that 55 million barrels of oil (145 000 barrels per day) are smuggled (or 'bunkered') out of the Niger Delta each year. At an estimated price of US\$20 per barrel, this comes to about US\$1.1 billion.¹⁷ In a more recent Chatham House report, government loss from illicit trade in hydrocarbons in Nigeria amounted to between US\$3 billion and 8 billion. That study estimates a loss of 100 000 bpd in the first quarter of 2013.¹⁸

Nigeria's 7 000 kilometres of oil pipeline (at least) are difficult to secure. Sabotage was responsible on average for 44% of losses that occurred between 2004 and 2011. When it comes to oil theft, the typical methods are hot tapping (creating a branch connection, for example under water) and cold tapping (where bombing a pipeline is used to install a spur pipeline). Barges then transport the stolen oil downriver to tankers in the Gulf of Guinea; some of it is transported by trucks in barrels. Another way in which oil is stolen is through corruption. Meanwhile, non-state armed groups, like the Movement for the Emancipation of the Niger Delta, and the Niger Delta Avengers, benefit from the proceeds of oil thefts. 21

Mexico

Some 23 500 bpd of crude and refined oil are stolen through tapping of the state-owned Petroleos Mexicanos (Pemex) pipelines. The cost has been put by the Mexican government at US\$1.17 billion (March 2016 figure). Much of this is caused by criminal collusion conducted by Pemex personnel, for example identifying tapping valves, and helping to install sophisticated equipment for tapping. In addition, there is theft, through coercion or stealth and 'kidnappings' trucks where the oil is ransomed.²² Among the perpetrators, the Zetas cartel (which has captured 38.9% or US\$372 million of the illegal market) is the dominant player, followed by the Jalisco New Generation Cartel (21.4% market share, or US\$212 million)²³ and the Gulf Cartel, with 16.3%, or US\$158 million.

Ghana experiences a wide variety of illicit hydrocarbon activities. These include transshipments via the offshore Saltpond Oil Field (which sells 100 000 barrels per year, but 470 000 barrels were shipped in 2014); oil tanker hijackings; tapping and siphoning of pipelines; and fuel smuggling caused by a 50% subsidy on oil price at a rate of US\$13 million per year, according to official numbers.²⁴

In **Morocco** illicit hydrocarbon activity is centred on illegal supply chains and smuggling. Stolen crude oil from Nigeria is laundered through Ghana's Saltpond Field, and sold on to the SAMIR field in Morocco, which exports it. Oil price subsidies in Algeria also cause smuggling overland – according to one report by official sources, smuggling accounted for 1.5 billion litres (9.4 million barrels) in 2013, with losses of US\$2 billion per year.²⁵ The estimated amount equates to an oil price of over US\$200 per barrel, which is halved here to reach an estimated total value of US\$1 billion.

In the border area between **Iran** and **Pakistan**, diesel smuggling has taken over from drug smuggling for some locals. The low Iranian oil price (approximately 15 US cents per litre, compared with US\$1.06 in America) leads to smuggling volumes of 100 to 130 tankers a day, each carrying 25 000 to 40 000 litres. Smuggling activity has a revenue potential of between US\$0.83 billion and 1.73 billion a year.²⁶

Angola's state-owned oil company, Sonangol, has a production rate of about 1.63 million bpd in 2018, making Angola as the second largest producer of crude oil in Africa. The company's official net profit in 2017 was US\$224 million,²⁷ and yet its profit margin was just 0.7%.²⁸ Human Rights Watch and The International Monetary Fund have said this is because tens of billions of dollars are missing from official accounting figures.²⁹ A conservative estimate of 5% to 15% of total production is lost to corruption, which equates to between US\$4.8 billion and US\$14.5 billion a year.³⁰

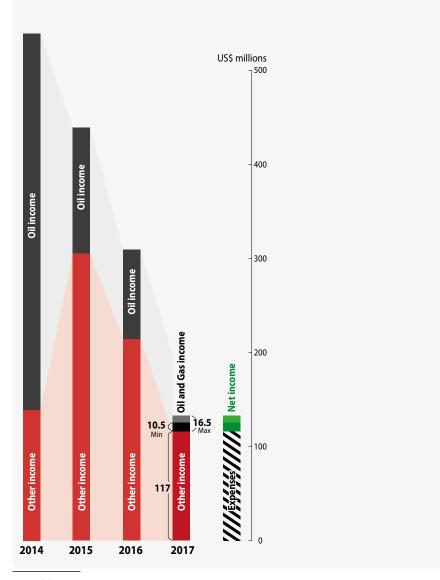
About US\$750 million to US\$1 billion worth of **Libyan** oil is smuggled to Malta each year, according to the Daphne Project and the Libyan National Oil Corporation.³¹ The oil is transferred from ship to ship about 12 miles off the Malta coast.³²

Because of its strategic location, **Turkey** is a major node in many illicit trafficking flows, not least oil. Smuggling is the major issue in Turkey, much it the result of price disparities. At their height, Islamic State earned up to US\$1.4 billion a year from sales of oil and gas – a large proportion of it to Turkey. While oil smuggling across the border from Syria has existed for some time, it increased by 300% when the Syrian civil war started.³³ According to official numbers from the energy ministry, smuggling accounts for up to 2.7 million tonnes a year, at a tax loss of US\$2.5 billion a year.³⁴

Hydrocarbon crime is also widespread in a number of other countries, although reliable estimates of its scale are missing from the data. These include Uganda (principally the result of smuggling, by former DRC rebels called the Opec Boys); Mozambique (corruption); Thailand (smuggling from Malaysia caused by subsidized prices there); Azerbaijan (smuggling from neighbouring countries).³⁵

	Oil high (US\$)	Oil low (US\$)	
Nigeria / Niger Delta	8 000 000 000	1 100 000 000	
Mexico	1 170 000 000	1 170 000 000	
Ghana	13 000 000	13 000 000	
Morocco	1 000 000 000	1 000 000 000	
Iran/Pakistan	830 000 000	1 730 000 000	
Angola	4 800 000 000	14 500 000 000	
Libya	750 000 000	1 000 000 000	
Turkey	2 500 000 000	2 500 000 000	
Total	19 063 000 000	23 013 000 000	

Estimated overview of IS finances







Taxation and extortion

Islamic State made most of their income at the group's peak in 2013 and 2014 from oil, but were forced into using more coercive fundraising methods when they came under pressure two years later. They are one of the terrorist groups with the largest financial reserves, likely to be well over a hundred million US dollars. And the group has the ability and intent to recruit low-level individual terrorists while exercising increasing ability to undertake highly dangerous and more sophisticated attacks, like the one in November 2017in Egypt that killed 305, including in Western countries. The group's finances have plummeted since a high in 2014:

September 2014

US\$1.1 billion with US\$436 million in expenses

February 2015

US\$670 million with US\$435 million in expenses

February 2016

US\$285 million with US\$222 million in expenses

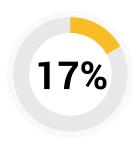
June 2017

US\$130 million with US\$117 million in expenses

January 2018

US\$6-24 million in expenses, half locally raised, half from reserves

In 2017 and 2018, Islamic State incurred very heavy financial and military losses, with a 95% drop in income. However, they are likely to retain in excess of US\$100 to US\$200 million in reserves and are still independent of expat finance. The group have become so weakened that they are not in a position to conduct their earlier robust and systematic funding campaign. However, a lot of their wealth is likely laundered, for example through investment in real estate. And their 'brand name' is still strong, not least because of their credible threats of resurgence as well as their reputation for use of extreme violence, so these investments remain relatively secure. In the meantime, they will resort to local taxation and extortion, as well as confiscation, as forms of income, which is what most insurgent groups



of incomes funding the largest armed groups derive from illicit taxation and extortion, excluding taxation of drugs.

turn to when under pressure, and which Islamic State has already shown a strong tendency for.

At the time of writing, Islamic State's capacity is unlikely to be more than 5 000 fighters in Iraq and Syria. The big unknown, however, is how many are on the run but who may still maintain strong loyalty to the organization. That figure is likely to be in the region of 5 000 at least, giving a total capacity of about 10 000. In addition, there are returned foreign fighters, about 20% of whom had left the group's territories at various stages. There are an estimated 5 600 foreign fighters affiliated with IS, who have returned to their home countries.³⁶

In terms of funding, at a fairly basic subsistence minimum and with some transportation and bribe costs of US\$100-200 a month for 5 000 fighters, and additional costs of maintaining the organization, hiding high-value targets, and sustaining intelligence and counter-intelligence costs of another US\$200 per fighter, Islamic State would have estimated current expenses of between US\$6 million and US\$24 million. They are likely to be able to raise half of this, funding the balance from their reserves. In their current situation, therefore, the organization is likely to think less in terms of salaries, and more in terms of emergency burden sharing and long-term survival as a group.

Smuggling of diesel and gasoline to mafia-run militant groups

Various criminalized militia groups export diesel out of Libya. In October 2017, Italian police disrupted a group smuggling diesel through an Italian mafia network. The mafia were engaged in a Libyan fuel-smuggling ring in which at least €30 million (US\$35 million) of diesel was sold in gas stations in Italy and Europe. A Libyan group used small boats to steal fuel from Libya's National Oil Corporation refinery in Zawiya, a port city west of Tripoli. The fuel was then transferred to a larger ship off the coast of Malta and shipped to Italy.

There is a huge amount of fuel-smuggling activity between Colombia and Venezuela; Tunisia and Libya; Iran and Afghanistan; and Nigeria, Cameroon and Chad. Very often, militant groups engage in the smuggling of fuel themselves, or tax impoverished people engaged in it. The smuggling occurs at all levels, from highly organized rings using road tankers, to buried funnels cross border between Syria and Turkey, to small refineries. In some cases, small quantities are smuggled in canisters by road to individual low-level dealers or sellers.

Islamic State: Estimated incomes (in US\$ millions), in Syria/Iraq, 2014-2017

	2014	2015	2016	2017
Oil and gas	150-450 / 400-1,400	435-550 / 84-244	200-250 / 48-95	Lacking / 10-17
Taxes and fees	300-400 / 26-170	400-800 / 77-258	200-400 / 70	Lacking / 107
Kidnap/ransom	20-40 / 87	Lacking / 20	10-30 / 20	Lacking / 10
Antiquities	Lacking / 36	Lacking / 22-55	Lacking	Lacking
Foreign donations	Unknown	Insignificant/ 40	Insignificant	Insignificant
Looting / confiscations	500-1,000 / Included above	200-350 / 240	110-190 / 138-216	Lacking / Included above
Sum income all sources	970-1,890 / 549-1,693	1,035-1,650 / 523-815	520-870 / 262-309	Lacking / 127-134
Expenses (salaries, arms,	285-586	285-586	221	117
transport, social services)				
Net income	259-1,107	229-238	40-87	10-17

Sources: International Centre for the Study of Radicalisation and Political Violence, King's College, 2017 and RHIPTO Norwegian Center for Global Analysis 2014-2017 (in bold) 38, 39, 40, 41. The numbers are generally roughly compatible with estimates from captured Islamic State accounts from Deir-ez-Zor Governorate from January 2015. 42, 43



