

Oil on the Water:

Illicit Hydrocarbons Activity in the Maritime Domain



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in the Maritime Domain

Dr. Ian Ralby and Dr. David Soud

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Cover photo: Canoes lie in oil-slicked mud on the shore of the Bodo creek in Ogoniland near Nigeria's oil hub city of Port Harcourt December 4, 2012. The environmental destruction from years of illicit hydrocarbons activity has caused generations' worth of damage to Nigeria's marine environment. Picture taken December 4, 2012. REUTERS/Akintunde Akinleye

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This report was produced by I.R. Consilium, LLC, in conjunction with the Atlantic Council. **Dr. Ian M. Ralby** and **Dr. David Soud** authored the report with advice and support from Rohini Ralby.

Dr. lan Ralby, founder and CEO of I.R. Consilium, is a recognized expert in international law, maritime security, and the interdiction of transnational crime. As lead author of two previous Atlantic Council reports— Downstream Oil Theft: Global Modalities, Trends and Remedies, and Downstream Oil Theft: Implications and Next Steps—he is also considered a leading authority on illicit hydrocarbons activity.

Dr. Ralby's work frequently involves maritime security, and he has worked with several dozen governments around the world on countering illicit maritime activity, developing maritime governance, and enhancing the blue economy. Much of his work also involves energy-related matters, both on land and offshore. From protection of oil and gas infrastructure, to human-rights concerns regarding the use of private security companies by the extractive industry, to mitigation of theft LLC. She has a background in security and strategy. and other illicit activity, Dr. Ralby has addressed a wide range of energy issues for governmental, intergovernmental, and nonstate clients.

In addition to his work with the Atlantic Council. Dr. Ralby is adjunct professor of Maritime Law and Security at the United States Department of Defense's Africa Center for Strategic Studies, and an advisor on security and counter-criminal matters to various international organizations including NATO, and various organs of

the United Nations. He writes and speaks frequently on matters of international relations, law, and security.

Dr. Ralby holds a BA and MA from UMBC, a JD from the College of William and Mary, and a PhD in Politics and International Studies from St. John's College of the University of Cambridge.

Dr. David Soud is head of Research and Analysis at I.R. Consilium, LLC. As a contributing author on the previous Downstream Oil Theft reports, Dr. Soud is also considered a leading authority on illicit hydrocarbons activity. His work focuses extensively on resource-related matters. In addition to his work on oil and fuel theft, he has dealt extensively with illegal, unreported, and unregulated fishing, as well as the nexus between fisheries crime and other transnational organized crime. He holds a DPhil from the University of Oxford, and has researched and published extensively on a wide range of subjects.

Rohini Ralby is managing director of I.R. Consilium, In recent years, her advisory work has focused on matters relating to the oil and gas industry. She was instrumental in the analysis contained in the previous Downstream Oil Theft reports, as well as in the present report. Ms. Ralby holds an AB from Washington University in St. Louis and an MA from Mills College.

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EXECUTIVE SUMMARY

irates seizing oil tankers off West Africa or Southeast Asia and selling off their cargos. Counterfeit fishing boats ferrying loads of illicit diesel from offshore tankers to waiting smugglers in Thailand, who then sell it to finance an insurgency. Artisanal fishermen launching lucrative careers smuggling subsidized Ecuadorian fuel into Colombia and Peru. where it will be used to manufacture cocaine. Offshore oil-prospecting licenses distributed to well-connected individuals, and then flipped to oil companies for massive profits. Ship-to-ship transfers being exploited to inflate prices, bust sanctions, and conceal the flow of illicit product. Organized criminal groups and renegade militias linking operations across the Mediterranean to traffic in fuel, weapons, and persons.

Oil and fuel theft is big business-globally, it adds up to tens, if not hundreds, of billions of dollars annually and much of that criminality makes use of the maritime space. Whether in small fishing boats or Suezmax tankers, illicit oil and fuel move constantly, in broad daylight, around the world. And the profits, which deprive states of much-needed revenue, often fund more sinister criminal activities, from other forms of trafficking to terrorism.

It is vital that all stakeholders understand the various modalities of maritime hydrocarbons crime—as well as the recommended methods to combat it.

Modalities

- Piracy and armed robbery at sea, which include hijacking for ransom of cargo, hijacking for theft of cargo, hijacking of supply vessels, and robbery of tankers at anchor.
- Smuggling, which includes small- and large-scale operations to exploit crossborder price differentials or profit from stolen product as well as co-located smuggling in which oil and fuel are trafficked alongside narcotics, precious metals, weapons, persons, or even illegally harvested fish.

- The use of illicit fuel as currency, both for necessities in troubled regions and for untraceable transactions involving other illicit activities.
- Fraud and corruption, including fraudulent allocation of offshore rights, subsidies and excise fraud, adulteration, laundering of stolen oil and fuel, and collusion by officials in systematic theft.
- Sanctions busting, in which penalized states circumvent sanctions through smuggling and ship-toship transfers of fuel.

Recommendations

- Concrete countermeasures, principally molecular marking, as well as effective metering through the supply chain, and the tracking of vessels.
- Prioritizing hydrocarbons crime among maritime law-enforcement agencies.
- Establishing national and regional legal frameworks for the prosecution and punishment of maritime hydrocarbons crimes.
- Cooperative approaches to mitigation, involving both interagency coordination and crossborder security and law-enforcement mechanisms.
- National maritime strategies that involve strong monitoring, control, and surveillance of the maritime space, enhanced capacity and capability, and economic development that offers viable alternative livelihoods for those at risk of maritime criminality.
- Coordination among law-enforcement agencies to understand and exploit the links between hydrocarbons crime and other criminal enterprises in the maritime space.
- Partnerships between governments and industry actors, to mitigate losses and raise awareness of the issue.

INTRODUCTION

n 2017, global oil-tanker capacity reached an all-time high of 535 million in deadweight tonnage.¹ In practical terms, that meant that roughly 30 percent of all seagoing trade was conducted by oil tankers.² Given that 90 percent of world trade happens by sea, the volume of liquid hydrocarbons on the water is enormous.³ Add in the more than one-quarter of the world's oil and gas production that takes place offshore, and the maritime space is revealed as an enticing venue for fraud, theft, and smuggling.⁴

While exact figures are impossible to calculate, reasonable estimates place the global value of illicit oil and fuel activity in the tens, if not hundreds, of billions of dollars. As oil prices continue to recover from the crash of 2014, such activity will only increase. Much of it will involve the maritime space. Piracy in the Gulf of Guinea has become well known, and media reports have recently brought attention to fuel smuggling in the Mediterranean and Southeast Asia, illegal ship-toship transfers off North Korea, and contraband fuel busts in the Caribbean.⁵ The attention these maritime aspects of illicit hydrocarbons activity have received must lead to intervention. It is crucial to develop a comprehensive and evolving understanding of how hydrocarbons crime unfolds on the water—its modalities and emerging trends. This report is a step in that direction.

Implications

As pervasive as hydrocarbons crime is, its scope is rarely understood, and its effects are seldom mitigated. The movement of both oil and fuel on the water is so commonplace that few would even recognize illicit activity committed in front of them in broad daylight. Furthermore, many are willing to turn a blind eye toward what may seem to be just a few jerry cans full of

fuel on the deck of a fishing boat, or a clever scheme to get cheaper fuel. In some quarters, even larger-scale oil and fuel theft might be seen as benign, a simple skimming off the top of vast corporate profits or government revenues. Moreover, those technically responsible for combating hydrocarbons crime may lack the necessary capacity to address it, be overwhelmed by more "high-profile" crimes like drug or human trafficking, or, in fact, collude in the illicit activities. Regardless, the consequences of letting hydrocarbons crime flourish are dire.

"The movement of both oil and fuel on the water is so commonplace that few would even recognize illicit activity committed in front of them in broad daylight."

To begin with, oil theft often means lost revenues for governments struggling to provide essential services. In impoverished and underserved regions around the world, people turn to black-market diesel to cook their meals and heat their homes, when millions or even billions in tax revenues from stolen fuel might have provided them access to the benefits of an electrical grid. In a more sinister way, hydrocarbons crime goes hand in hand with trafficking in narcotics, weapons, and persons. It drives piracy. It heightens the possibility of environmental catastrophe—as in the Niger Delta, where systematic oil theft has devastated one of the world's richest ecosystems. It also funds transnational organized crime, militancy, and terrorism. Whether it be the Islamic State of Iraq and al-Sham (ISIS) in the Middle



Police officers stand on a fishing boat during a police inspection at the pier of Songkhla, south Thailand December 23, 2015. While the police raid targeted both illegal fishing and human slavery, the improbably high piles of fuel containers in the background indicate the co-location of fuel smuggling with other illicit maritime activities. REUTERS/Surapan Boonthanom

East and the Philippines, militant groups in Thailand and the Niger Delta, or criminal cartels in Latin America and Southeast Asia, oil and fuel theft finances destructive and destabilizing activities. For the sake of the global economy, energy stability, the sustainability of the marine environment, and international security, the maritime domain cannot be allowed to continue playing host to the illicit oil and fuel activities currently under way.

Prior Reports

In 2016, I.R. Consilium, working with the Atlantic Council's Global Energy Center, conducted the largest study to date on downstream oil theft. The report of that study, titled *Downstream Oil Theft: Global Modalities, Trends, and Remedies*, was launched in January 2017.⁶ The follow-up report, titled *Downstream Oil Theft: Implications and Next Steps*, was released in April 2017.⁷ While more broadly focused on oil as well as fuel, this report builds on that prior work.

Approach

The previous Atlantic Council reports in this series used case studies to identify modalities, trends, implications, and remedies. This report instead places particular focus on the modalities and uses examples of each from around the globe. It does not pretend to provide comprehensive treatment of any of the issues; rather, it seeks to highlight the problems and raise concerns that merit further attention from stakeholders in maritime industries, policymaking, and national and international security. The data collection and analysis include a mix of open-source research and field work. Wherever possible, information is corroborated by publicly available sources, but parts of this report draw on primary-source material born of interviews and firsthand observation in various parts of the world. Though it is intended to serve as a starting point for future work, rather than a conclusive study, it nevertheless contains a considerable amount of information that has never before been compiled or analyzed.

¹ Statista, "Capacity of Oil Tankers in Seaborne Trade from 1980 to 2017 (in Million DWT)," 2018, https://www.statista.com/statistics/267605/capacity-of-oil-tankers-in-the-world-maritime-trade-since-1980/.

² Ihid

³ United Nations, "IMO Profile," 2018, https://business.un.org/en/entities/13.

^{4 &}quot;Offshore Oil and Gas Production," *Planète Énergies*, August 20, 2015, https://www.planete-energies.com/en/medias/close/offshore-oil-and-gas-production.

Matthew Vella, "Libyans Long Warned of 'Maltese Mafia' Smuggling Fuel Across the Mediterranean," MaltaToday, October 23, 2017, http://www.maltatoday.com.mt/news/national/81526/libyans_long_warned_of_maltese_mafia_smuggling_fuel_across_the_mediterranean; Henning Gloystein and John Geddie, "Shady Triangle: Southeast Asia's Illegal Fuel Market," Reuters, January 18, 2018, https://uk.reuters.com/article/us-singapore-oil-theft-southeast-asia-an/shady-triangle-southeast-asias-illegal-fuel-market-idUKKBNIF7OTT; Guy Faulconbridge, Jonathan Saul, and Polina Nikolskaya, "Exclusive: Russian Tankers Fueled North Korea Via Transfers at Sea—Sources," Reuters, December 29, 2017, https://www.reuters.com/article/us-northkorea-missiles-russia-oil-exclus/exclusive-russian-tankers-fueled-north-korea-via-transfers-at-sea-sources-idUSKBNIENIOJ; "In Jamaica's Tourist Hub, a State of Emergency," Economist, January 25, 2018, https://www.economist.com/news/americas/21735650-lottery-scammers-are-adding-violence-montego-bay-jamaicas-tourist-hub-state.

⁶ Ian M. Ralby, *Downstream Oil Theft: Global Modalities, Trends, and Remedies* (Washington, DC: Atlantic Council, 2017), http://www.atlanticcouncil.org/images/publications/Downstream-Oil-Theft-RW-0214.pdf.

⁷ Ian M. Ralby, *Downstream Oil Theft: Implications and Next Steps* (Washington, DC: Atlantic Council, 2017), http://www.atlanticcouncil.org/images/publications/Implications and Next Steps RW 0316.pdf.

MODALITIES

riminals are unconstrained by law, bureaucracy, or the normative restrictions that limit legitimate actors, and criminal innovation is driven by a risk-reward calculus that helps identify which illicit activities are worth pursuing. If there is a way to make the reward high enough, while keeping the risk of interdiction tolerable, criminals will go to extreme lengths to obtain illicit profits. The opportunity for innovation is perhaps even greater in the maritime domain than on land. A general lack of surveillance, shortfalls in interdiction capacity, limited legal expertise, and a pervasive sea blindness mean that many states fail to notice, much less address, the criminal activity occurring in their maritime domains. Criminals have become increasingly astute at understanding maritime law-enforcement priorities and capabilities, and operating in the gaps between them. When it comes to stealing—by force or deception—or illegally transporting oil and fuel, criminals have seldom needed to innovate, as law-enforcement intervention has been relatively nonexistent. Confronted by only a few concerted efforts at intervention, however, criminals have already demonstrated the capacity for such innovation.

"A general lack of surveillance, shortfalls in interdiction capacity, limited legal expertise, and a pervasive sea blindness mean that many states fail to notice, much less address, the criminal activity occurring in their maritime domains."

Piracy and Armed Robbery at Sea

Under international law, piracy is considered one of the *jus cogens*, or peremptory norms; there is universal agreement that it is illegal. In fact, customary international law

considers its perpetrators to be *hostis humani generis*: enemies of all mankind. For generations, pirates seemed to have been relegated to history and fiction, but the last fifteen years have witnessed a massive resurgence of both piracy on the high seas and armed robbery at sea in territorial waters. While the phenomenon has been most closely associated with Somalia, it has become prevalent in a number of areas around the globe. Furthermore, the methods and focus of attacks have shifted, and continue to evolve; some are closely tied to the maritime movement of oil and fuel.

Hijacking for Ransom of Cargo

The region of Somalia and the Northwest Indian Ocean has been the epicenter of twenty-first-century piracy; it is worth identifying what makes it distinctive, in order to provide contrast to the oil-focused piracy elsewhere. The Somali model of piracy has been to hijack vessels and hold the vessel and crew for ransom, regardless of the cargo.8 While many oil tankers were targeted largely on account of their slow movement and low freeboard, and thus the ease of attack-the oil itself was not the principal focus of the piracy. Between May 2012 and March 2017, there were no successful hijackings off Somalia.9 Interestingly, that streak was broken on March 13, 2017, when the oil tanker ARIS 13 was hijacked en route from Djibouti to Mogadishu; it was ultimately released without even a ransom payment, indicating that oil was still not a prize for the region's pirates.¹⁰ Though pirate activity increased over the course of 2017, it remains to be seen whether, and how, a new model of Somali or-as is now the concern—Yemeni piracy might develop.

In South and Southeast Asia, on the other hand, thirtyone tankers were hijacked in 2017—ten in the South China Sea, nine off Indonesia, seven in the Philippines, three in the Straits of Malacca, and one each in Bangladesh and Malaysia.¹¹ Of these, twenty-seven were situations in which the crew and cargo were held for ransom. Again, however, the attraction to these vessels is not necessarily the oil itself, but the relative ease



The SCF Altai tanker (background) docks near Israel's Ashkelon port, as men sit in a fishing boat in the Mediterranean sea June 20, 2014. Iraqi Kurdistan looked set to unload in Israel a first cargo of disputed crude oil from its new pipeline after weeks of seeking an outlet as Iraq's central government has threatened legal action against any buyer. The SCF Altai did not arrive directly from Turkish port of Ceyhan, the United Emblem was the second tanker to load crude at Ceyhan from the Kurdish Regional Government pipeline at the start of last week. It then made a ship-to-ship transfer near Malta to the SCF Altai during June 14-16, local shipping and market sources said and ship tracking showed. REUTERS/Amir Cohen

of hijacking tankers. Elsewhere, however, oil has been the focus.

Hijacking for Theft of Cargo

While pirates off Somalia and in the Northern Indian Ocean have not targeted oil cargos, hydrocarbons play a central role in piracy elsewhere, and one of the most prevalent types of illicit hydrocarbons activity is hijacking tankers for their oil cargo. This is a growing problem in Southeast Asia, but is most prolific in the Gulf of Guinea. Over the last decade, oil-laden tankers in Nigeria have been attractive targets for a number of reasons. First, they are easy to attack, particularly at anchor, and are not allowed to have private armed guards aboard. The Nigerian Navy has been available for hire to protect vessels, but this is not proving to be a longterm solution. Furthermore, Nigerian crude is easy to refine in artisanal refineries and sell for profit as refined fuel. These dynamics are detailed extensively in the first report of this series.12

Initially, the Gulf of Guinea model was to attack the vessel, hold the crew for a small ransom—six figures rather than millions of dollars—and, in the two to five days of waiting for payment, engage in a ship-to-ship transfer to steal at least some of the cargo. Until 2016, this problem was technically one of armed robbery at sea, meaning the vessels were attacked within Nigeria's territorial waters; however, improvements in maritime governance since President Muhammadu Buhari took office in May 2015 have pushed the problem farther out to sea. While tankers are still regularly hijacked in the region, they are increasingly held for ransom in a manner more akin to the Somali model of piracy.

While this problem is most acute in the Gulf of Guinea, it is not unique to that region. In Southeast Asia, there were eighty-nine pirate attacks in 2017, thirty-one of which were against tankers, and three of which involved theft of oil.¹³ In one such attack in June 2017, pirates armed with guns and knives boarded a Thai oil tanker off Kuantan, Malaysia, and transferred 1.5 million liters of diesel to their

⁸ Frank Gardner, "Somali Piracy: A Broke Business Model?" BBC, November 29, 2012, http://www.bbc.com/news/world-africa-20549056.

⁹ Abdi Latif Dahir, "With Reduced Patrols and Illegal Fishing, Somalia's Pirates Could Be Making a Comeback," Quartz Africa, March 20, 2017, https://qz.com/935357/with-reduced-patrols-and-illegal-fishing-somalias-pirates-could-be-making-a-comeback/.

¹⁰ Anna Cummins, "Crew Released Without Ransom After Ship Hijacked off Somalia," CNN, March 17, 2017, https://www.cnn.com/2017/03/17/africa/somali-pirate-mt-aris-13-crew-released/index.html.

¹¹ Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia, *January-December 2017 Report Annual: Piracy and Armed Robbery Against Ships in Asia* (Singapore, ReCAAP Information Sharing Centre, 2017), http://www.recaap.org/DesktopModules/Bring2mind/DMX/Download.aspx?Command=Core_Download&EntryId=605&PortalId=0&TabId=78.

¹² Ralby, Downstream Oil Theft: Global Modalities, Trends, and Remedies, pp. 14-24.

¹³ ReCAAP, Piracy and Armed Robbery Against Ships in Asia.



Members of the Philippine Coast Guard (PCG) anti-terrorist unit apprehend mock pirates who hijacked a vessel during a combined maritime law enforcement exercise at a bay in Manila May 6, 2015. Philippine and Japanese coast guard teams staged an anti-piracy drill, featuring the storming of a cargo vessel after a mock hijack, in a show of maritime cooperation between the two nations amid rising tension in Asian waters. REUTERS/Romeo Ranoco

vessel.¹⁴ While the number of attacks is higher in the region than in the Gulf of Guinea—which is estimated to have had about forty-five armed attacks in 2017—most of the attacks in West Africa focused on either tankers for theft of cargo or oil-supply vessels for ransom.¹⁵

Hijacking of Supply Vessels

While the prevailing model of Gulf of Guinea piracy has focused on quick turnarounds, low ransom demands, and theft of oil, a Somali-like model also developed regarding offshore oil-supply vessels. Attacks on such vessels in the Gulf of Guinea have frequently involved taking the crew (or part of it) to shore as hostages, in pursuit of multimillion-dollar ransoms. The frequency of this sort of activity against oil-industry vessels increased dramatically in 2016, and has continued to rise. Indeed,

2017 saw fewer total attacks, but a greater number of kidnappings, with sixty-nine hostages held for ransom over the course of the year.¹⁷ In contrast, of the eighty-nine vessels taken by pirates in South and Southeast Asia in 2017, only six were offshore supply vessels.

Robbery of Tankers at Anchor

Armed robbery of oil tankers at anchor has also grown more frequent. While piracy attacks were down overall in 2017, robberies at anchor were on the rise, primarily in the Caribbean and the Philippines. The model in the Caribbean—particularly off Venezuela—is that gunmen board the stationary vessels, tie up the crew, and rob the vessels of their valuables. While the Venezuelan model has not yet reached the point of stealing the cargo or taking hostages for ransom, the prevalence of smuggling in

the region, combined with an increasing degree of instability, could lead to hijackings for theft of oil cargo. Piracy should be a serious concern for tankers in the Caribbean.

Robbery at anchor is also prevalent in other parts of the world, including the Philippines, Indonesia, and Nigeria. Another area of concern is off India and Bangladesh. While attacks on fishing vessels in Bangladesh have been a growing problem for some time, several oil tankers have been robbed at anchor off India—to the east and west—in 2017 and 2018. India, sensitive about maritime security following the 2011 Mumbai attacks, will no doubt take action to clamp down on this issue, but doing so may escalate the situation. These sorts of robberies are likely to remain a problem in the Gulf of Guinea and Southeast Asia as well.

Smuggling

Oil and fuel smuggling is a global industry. Wherever a price differential, even a marginal one, can be exploited, smugglers will illegally move product for profit. Much of this traffic transits the maritime space, and its perpetrators range from artisanal fishers in canoes, to organized criminal groups operating at industrial scale, to state actors looking to bust sanctions or destabilize other states.

Small-Scale Smuggling

At the most modest level, maritime fuel smuggling is often a matter of artisanal fishers tempted by easy profits. A fisher can make more in a day smuggling fuel than in a month of fishing, particularly in border areas where fisheries are depleted. Furthermore, the fishing industry often involves cash transactions, and fishing boats can pass unmonitored through areas where larger vessels might attract unwelcome attention. Fishing boats, including counterfeit ones, have thus become ubiquitous carriers in a global maritime black market.

Artisanal smuggling in South America exemplifies how this seemingly innocuous activity can lead to large-scale consequences. In San Lorenzo, Ecuador, fishing boats routinely smuggle jerry cans and barrels of subsidized Ecuadorian fuel to the neighboring coast of Nariño, Colombia, where it can be sold at a considerable profit

"While some of that fuel may end up powering vehicles, much finds its way to drug cartels, who use the gasoline as a solvent to transform Nariño's extensive coca harvest into the cocaine that floods markets and ruins lives around the world."

well below Colombian retail prices. While some of that fuel may end up powering vehicles, much finds its way to drug cartels, which use the gasoline as a solvent to transform Nariño's extensive coca harvest into the cocaine that floods markets and ruins lives around the world.¹⁸

In Venezuela in 2016, fishers were purchasing the world's cheapest fuel at less than a penny per sixty-liter jerry can, and selling each container at sea for ten dollars—profiting by more than 1,000 percent, despite providing buyers an enormous discount from market prices.¹⁹ In Thailand, specially retrofitted fishing boats carry millions of liters annually of illicit Malaysian diesel from tanker ships functioning as "open-sea fuel stations" to black marketeers along the coast of the Gulf of Thailand.²⁰ This happens daily, often at even greater scale, in the heavily trafficked waters around Singapore, the refueling and refining hub of Southeast Asia. An estimated six million liters per day of diesel and paraffin oil are smuggled overland and by sea from Iran into Pakistan, largely by small operators.²¹ Off the northwest coast of India, fishers take their boats out to international waters to purchase Iranian diesel, which sells for less than ten cents a liter, to resell it on the black markets of Mumbai and other cities, where the retail cost is ten times higher.²² Subsidized Nigerian fuel makes its way in small boats to neighboring Benin, Togo, and Ghana, undercutting tax revenues.

Large-Scale Smuggling

For criminals with sufficient capital, fuel smuggling is highly scalable. In both developing and developed states,

¹⁴ T. N. Alagesh, "Pirates Hijack Thai Oil Tanker, Make Off With 1.5mil Litres of Diesel," New Straits Times, June 26, 2017, https://www.nst.com.my/news/nation/2017/06/252258/pirates-hijack-thai-oil-tanker-make-15mil-litres-diesel.

^{15 &}quot;2017 In Review: Maritime Security in the Gulf of Guinea," Dryad Maritime, January 9, 2018, http://www.dryadmaritime.com/2017-review-maritime-security-gulf-guinea/.

¹⁶ ICC Commercial Crime Services, press release, "Violent Attacks Worsen in Seas Off West Africa Despite Global Piracy Downturn, IMB Reports," April 27, 2016, https://icc-ccs.org/news/1179-violentattacks-worsen-in-seas-off-west-africa-despite-global-piracydownturn-imb-reports.

^{17 &}quot;2017 In Review: Maritime Security in the Gulf of Guinea," Dryad Maritime.

¹⁸ Channing May, *Transnational Crime and the Developing World* (Washington, DC: Global Financial Integrity, 2017), p. 87, http://www.gfintegrity.org/wp-content/uploads/2017/03/Transnational_Crime-final.pdf.

¹⁹ Girish Gupta, "Smuggling Soars as Venezuela's Economy Sinks," Reuters, January 20, 2016, https://www.reuters.com/article/us-venezuela-smuggling-insight/smuggling-soars-as-venezuelas-economy-sinks-idUSKCNOUY1IT.

²⁰ For further information, see Ralby, Downstream Oil Theft: Global Modalities, Trends, and Remedies, p. 54.

^{21 &}quot;Fuel Smuggling Through The Lens of an Iranian—Manual Only," *Stop Fuel Smuggling*, September 20, 2017, http://stopfuelsmuggling.com/fuel-smuggling-lens-iranian-manual/.

²² Praveen Swami, "Fishing Boats Using Cheap Fuel Sailing into Terror Traps?" *Hindu*, July 31, 2016, http://www.thehindu.com/news/national/fishing-boats-using-cheap-fuel-sailing-into-terror-traps/article2668803.ece.

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corrupt officials can use their positions, and misdirected state resources, to build vast and complex networks of theft, smuggling, and fraud that extend across state borders and establish informal links with other criminal groups. No perpetrators are better equipped to scale up smuggling operations than transnational groups of organized criminals, which can include cartels, organized-crime syndicates, militant groups, and terrorist organizations. This is the most sinister form of hydrocarbons crime, and it often exploits the maritime space.

No region exemplifies the corrosive effects of largescale smuggling more than the Mediterranean. The criminality unleashed by the destabilization of Syria and Libya has metastasized across the region, and trafficking of all sorts has flourished. Much of that trafficking is now in the hands of organized criminal groups that partner in trans-Mediterranean smuggling ventures. One 2015 study found oil-tanker charters out of the Turkish port of Ceyhan had spiked each time ISIS forces took control of new oilfields in Iraq and Syria; the oil was apparently sold at the wellhead and trucked into Turkey for dispersal. The study's authors found "strong hints to an illicit supply chain that ships ISIS crude from Ceyhan" across the region and beyond.²³ Oil smugglers working out of Iraq have certainly taken advantage of the extensive smuggling networks developed by Saddam Hussein to bust United Nations (UN) sanctions, funneling Iraqi crude through Turkey, as well as the Persian Gulf.²⁴

The region's most widely publicized hydrocarbons crime is large-scale fuel smuggling out of Libya, where homegrown militias and other groups have partnered with established transnational criminal organizations to funnel subsidized or stolen Libyan diesel into European markets. In Libyan ports like Zawiya and Zuwara, members of the Petroleum Facilities Guard, some of whom lead their own militias, collude with Libyan Coast Guard personnel to transfer fuel from Libyan facilities into the hands of a range of actors. Documents in a 2017 UN report revealed purchase orders for subsidized Libyan fuel—which is illegal to export—by trading firms based in the Marshall Islands and in Ukraine.²⁵

In one notorious fuel-smuggling network, Libyan smugglers coordinated with organized criminal groups in Malta and Sicily. Before authorities busted the operation, it had smuggled at least thirty shipments, totaling more than eighty million kilograms of low-grade diesel, into Europe. Small vessels, including modified fishing boats, would ferry Libyan diesel out to waiting tankers that had turned off their automatic identification system (AIS) transponders before entering Libyan waters. After additional ship-to-ship transfers, the diesel eventually landed in Sicily, then was mixed with existing stock and distributed in Europe.²⁶

Co-Located

While the nexus of smuggling, transnational organized crime, and the trafficking of illicit goods is mentioned above, it is worth highlighting some of these dynamics in greater detail. In many places, fuel smuggling, while off the law-enforcement radar, is inextricably tied to other issues of national concern, like drug and weapons trafficking, illegal fishing, and the theft of antiquities and cultural property.

Drugs

The link between hydrocarbons and drugs has also been touched on above, but it is important to note just how extensive the connection is in many places. In addition to enabling drug cartels to diversify their criminal portfolios—and, thus, their income streams—with low-risk, high-reward smuggling activities, the control of gasoline supplies is strategically important for cocaine producers. In some respects, gasoline should be considered pre-production drug paraphernalia, given its role in the process. But, the co-location of drugs and fuel goes far beyond that dynamic.

Out of Venezuela, fishing vessels are among the principal conduits of drugs leaving the continent for Caribbean islands and beyond. At this point, hardly a single shipment of drugs leaves Venezuela without fuel also on board. Carried in barrels, jerry cans, or modified



A locally made boat containing crude oil is manned through a creek near the river Nun in Nigeria's oil state of Bayelsa December 6, 2012. Illicit hydrocarbons activities necessarily translate into unregulated handling of crude and refined products alike, posing significant threats to marine environments, fish stocks, and human health. Picture taken December 6, 2012. REUTERS/Akintunde Akinleye

fuel tanks within the boats, fuel is moving in relatively small quantities, but at such a frequent rate that the volume is becoming significant. As noted in the first report of this series, even jerry cans carried by donkeys between Algeria and Morocco can add up to \$2 billion of illegal fuel, so the small quantities leaving Venezuela in boats with drug shipments cannot be ignored as inconsequential.²⁷

Elsewhere in Latin America, the movements of drugs and fuel are one and the same. More than one thousand Ecuadorian nationals are currently in prison in the United States for smuggling drugs and fuel into the country, revealing how far the maritime routes extend for the local "panga" fishing boats. An estimated \$600 million worth of subsidized Ecuadorian fuel has been smuggled into Peru, Colombia, Panama, Costa Rica, and as far as the United States; this has been happening for so long that it is now an entrenched

phenomenon. Its perpetrators do not even consider it a criminal enterprise, as the generational transfer has begun to occur: children are entering the family profession of using fishing boats to move fuel. This dynamic is particularly challenging, as reversing the trend will require viable alternatives for the livelihoods of those involved in smuggling.

Gold

According to the Organisation for Economic Cooperation and Development (OECD), Colombian drug cartels made \$7 billion from smuggling gold in 2016 more than they did from selling drugs.²⁸ However, gold and fuel are increasingly being smuggled together, and both are funding organized criminal groups. Gold from Colombia often travels through Venezuela, where some military personnel are so immersed in smuggling that they are known as the "Cartel of the Suns," after the

²³ George Kiourktsoglou and Alec D. Coutroubis, ISIS Export Gateway to Global Crude Oil Markets (Buckinghamshire, UK: Maritime Security Review, 2015), p. 12, http://www.marsecreview.com/wp-content/uploads/2015/03/PAPER-on-CRUDE-OIL-and-ISIS.pdf.

²⁴ Mary Kaldor, *New and Old Wars: Organized Violence in a Global Era: Third Edition* (Palo Alto, Calif.: Stanford University Press, 2012), p. 173.

²⁵ United Nations, "Letter Dated 1 June 2017 from the Panel of Experts on Libya Established Pursuant to Resolution 1973 (2011) addressed to the President of the Security Council," June 1, 2017, pp. 60–61, 273–274, http://www.statewatch.org/news/2017/jun/un-libya-final-report-res-1973-11-migrant-abuses.pdf.

[&]quot;Criminal Conspiracy: Maxcom Bunker's Managing Director Has Been Arrested," Ship2Shore, October 23, 2017, http://www.ship2shore. it/en/shipping/criminal-conspiracy-maxcom-bunker-s-managing-director-has-been-arrested_65703.htm; Marco Militello, "Dirty Oil, II Petrolio Dalla Libia Arrivava a Catania Affare Internazionale e Sospetti su Proventi a Isis," Meridio News, October 18, 2017, http://catania.meridionews.it/articolo/59734/dirty-oil-il-petrolio-dalla-libia-arrivava-a-catania-affare-internazionale-e-sospetti-su-proventi-a-isis/; "Italy Breaks Up a Libyan Gang Smuggling Low Quality Fuel into Europe," Africa News, October 19, 2017, http://www.africanews.com/2017/10/19/italy-breaks-up-a-libyan-gang-smuggling-low-quality-fuel-into-europe/.

²⁷ Ralby, Downstream Oil Theft: Global Modalities, Trends, and Remedies, p. 38.

²⁸ Organisation for Economic Co-operation and Development, *Due Diligence in Colombia's Gold Supply Chain* (Paris: OECD, 2018), https://mneguidelines.oecd.org/Colombia-gold-supply-chain-overview.pdf.

insignia on the epaulettes of high-ranking officers.²⁹ The situation has become so extreme that, in January 2018, President Nicolás Maduro of Venezuela actually imposed a seventy-two-hour blockade of all maritime and air traffic to the Dutch Caribbean islands of Aruba, Bonaire, and Curaçao.³⁰ While the Venezuelan state-owned oil company, Petroleos de Venezuela SA (PdVSA), owns and operates a refinery in Curaçao and operates a refinery currently under refurbishment in Aruba, cutting off all traffic to these islands was a signal to the Dutch authorities that considerable effort is needed to curtail the co-located fuel-and-gold smuggling between Venezuela and the islands. It remains to be seen what actions the government will take.

"Ecuadorian smugglers, therefore, were literally fueling an illegal fishing operation that was robbing their national waters—in a designated UNESCO World Heritage Site of valuable and endangered marine life."

Humans

Around the world, human trafficking and smuggling are growing problems, and human slavery remains a blight on humanity. In Southeast Asia, fuel smuggling in modified fishing vessels remains closely tied to both human trafficking and human slavery. In January 2018, Human Rights Watch launched a detailed report on the exploitation of migrants from Burma, Cambodia, and Laos in the Thai fishing industry.³¹ In Libya, the interpenetration of hydrocarbons smuggling and human trafficking is extensive and well documented. Armed groups finance their operations by exploiting all three criminal enterprises—particularly at hubs like the port of Zawiya, where a variety of smuggling and trafficking routes intersect and merge.³² These issues were detailed in the first report of this series, but bear noting,

as human trafficking is on the rise in other parts of the world, including the Caribbean.

Illegal Fishing

In many places, illegal fishing and the illicit movement of fuel are as closely connected as fuel smuggling and drug trafficking. Latin American cartels have found a significant income stream in the international black market for shark fins and other often-endangered marine life. Venezuelan fishing boats carrying smuggled fuel will swap their cargo for the local catch in Guyana and Trinidad, making fish the trading currency for the fuel-smuggling operations.

The Chinese Reefer Fu Yuan Yu Leng 999 was arrested in the waters off the Galapagos on August 13, 2017.33 The vessel—laden with illegally caught fish and sharks, including some endangered species—has raised the specter of illegal, unreported, and unregulated fishing off the Pacific coast of South America. Not only were various illegal fishing operations supplying this large vessel with its massive illicit cargo, but local fuel smugglers were using fishing boats to provide the vessel with fuel to maintain its position at sea. Ecuadorian smugglers, therefore, were literally fueling an illegal fishing operation that was robbing their national waters—in a designated UN Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site-of valuable and endangered marine life. As a result of this case, measures countering both fuel smuggling and illegal fishing have become newfound priorities in Ecuador.

Fuel as Currency

In 1995, the United Nations, supported by the United States, established the Oil-for-Food Programme to allow Iraq to exchange oil for food, medicine, and humanitarian supplies, despite heavy international sanctions. This dynamic is being replicated on the water, without legal authority, in different parts of the world. Off the coast of Venezuela, Venezuelan fishers desperate for food and income will swap fuel for fish with Guyanese and Trinidadian fishers, as the exchange provides them faster access to fish than catching it themselves. This

same dynamic has been reported in other parts of Latin owners.³⁵ In the highly publicized corruption case in-America, as well as Southeast Asia. volving Nigeria's oil prospecting license (OPL) 245.

In a far less humanitarian exchange, fuel is also used as a means of purchasing drugs in some regions. Most prevalent in Southeast Asia, swapping fuel for drugs makes tracing the illicit transactions particularly difficult, as there is literally no money trail. The use of stolen or smuggled fuel as a form of currency may become a trend, especially in areas impacted by humanitarian crises, or that function as illicit marketplaces.

Fraud

Hydrocarbons fraud in the maritime space takes many forms and operates at every point on the supply chain, from allocation of contracts to retail sales. While a relatively narrow spectrum of crimes, such as excise fraud, figures prominently in developed countries, developing countries beset with the "resource curse" tend to suffer from a much broader, and more structural, array of fraudulent practices.

In some developing states, fraud has embedded itself in virtually every facet of the hydrocarbons industry. Nigeria, for instance, loses about four hundred thousand barrels of oil each day to theft, amounting to \$1.7 billion a month—and that is a conservative estimate.³⁴ And while pipeline tapping in the Niger Delta is the most widely known criminal activity, the modalities of constructive theft through fraud are every bit as entrenched. Other venues for extensive fraud, often linked with smuggling, include Angola and the Mediterranean.

Licensing, Forced Marriages, and Safe-Sex Transactions

In some developing oil-rich states, the scramble for resource rent begins with the allocation of licenses for offshore blocks. Through this opaque enterprise, members of the governing elite can line their pockets through "forced marriages," in which international oil companies (IOCs) are obliged to co-own blocks with domestic firms that serve as cash machines for their

owners.³⁵ In the highly publicized corruption case involving Nigeria's oil prospecting license (OPL) 245, Shell and Eni were alleged to have participated in a "safe-sex transaction" in which more than \$1 billion in payments to the Nigerian government was transferred to a firm called Malabu Oil. One of Malabu's principal shareholders was Dan Etete—who, during his prior tenure as petroleum minister, had awarded the rights to his own company.³⁶ Subsequent investigations revealed evidence that oil-company executives knowingly participated in the scheme, and an attorney for Eni was subsequently charged with attempting to undermine the investigation. Former Nigerian President Goodluck Jonathan has been named as a person of interest, on suspicion of having personally received hundreds of millions of dollars.³⁷

In Angola, the parastatal oil firm Sonangol has participated in "forced-marriage" transactions that lined the bank accounts of members of the so-called futungo, the wealthy elite orbiting the presidential palace. The most notorious of these cases involved Houston-based Cobalt International Energy, which successfully acquired the exploration rights to what proved a massively productive block off the Angolan coast. The deal stipulated partnership with an Angolan firm called Nazaki Oil and Gáz. When it later became clear that Nazaki was owned by three prominent members of the futungo—including Juan Manuel Vicente, the architect of Sonangol-Cobalt became the subject of a federal investigation under the US Foreign Corrupt Practices Act.³⁸ Though the US Securities and Exchange Commission eventually declined to pursue charges. Cobalt sold the rights back to Sonangol in December 2017, declaring bankruptcy shortly thereafter.³⁹

Subsidies

Fuel subsidies create other entry points for maritime-related fraud. As with any commodity, subsidies are a powerful enticement to both smuggling and fraud. At sea, subsidies fraud in any relatively unregulated locale can be as simple as "round tripping," in which a tanker receives the subsidy for its load, and then reimports the

²⁹ Harold A. Trinkunas, "The Venezuela Crisis: The Malicious Influence of State and Criminal Actors," testimony before the United States House of Representatives Committee on Foreign Affairs, Subcommittee on the Western Hemisphere, September 13, 2017, http://docs.house.gov/meetings/FA/FA07/20170913/106398/HHRG-115-FA07-Wstate-TrinkunasH-20170913.pdf.

^{30 &}quot;Dutch Islands Revisit Oil Ties to Venezuela," Argus, January 8, 2018, http://www.argusmedia.com/news/article/?id=1603375.

³¹ Human Rights Watch, "Hidden Chains: Rights Abuses and Forced Labor in Thailand's Fishing Industry," January 23, 2018, https://www.hrw.org/report/2018/01/23/hidden-chains/rights-abuses-and-forced-labor-thailands-fishing-industry.

³² United Nations, "Letter dated 1 June 2017 from the Panel of Experts on Libya Established Pursuant to Resolution 1973 (2011) addressed to the President of the Security Council," pp. 60-64.

³³ Katarina Zimmer and Sarah Blaskey, "'Ghost Poachers' Are Still at Large after the Biggest Shark-Smuggling Bust in Galapagos History," Quartz, August 24, 2017, https://qz.com/1060639/galapagos-shark-fishing-bust-who-are-the-ghost-poachers-who-supplied-the-fu-yuan-yu-leng-999/.

³⁴ Global Initiative against Transnational Organized Crime, *Transnational Organized Crime and the Impact on the Private Sector: The Hidden Battalions* (Geneva: Global Initiative against Transnational Organized Crime, 2017), p. 65, http://globalinitiative.net/transnational-organized-crime-and-the-impact-on-the-private-sector-the-hidden-battalions/.

³⁵ Ben Ezeamalu, "Special Report: How Corruption Fueled Allocation of Nigeria's Oil Blocks," *Premium Times*, January 8, 2018, https://www.premiumtimesng.com/news/headlines/254760-special-report-corruption-fuelled-allocation-nigerias-oil-blocks.html.

³⁶ Tom Burgis, The Looting Machine: Warlords, Oligarchs, Corporations, and the Theft of Africa's Wealth (New York: PublicAffairs, 2016), p. 191.

³⁷ Nicholas Ibekwe, "Malabu Scandal: Eni's Lawyer, Others Arrested for Allegedly Spying into Public Prosecutor's Investigation," *Premium Times*, February 6, 2018, https://www.premiumtimesng.com/news/headlines/257770-malabu-scandal-enis-lawyer-others-arrested-allegedly-spying-public-prosecutors-investigation.html.

³⁸ Burgis, *The Looting Machine*, pp. 12-18.

³⁹ Richard L. Cassin, "Cobalt Says SEC Ends Second FCPA Probe," FCPA Blog, January 31, 2018, http://www.fcpablog.com/blog/2018/1/31/cobalt-says-sec-ends-second-fcpa-probe.html.

Oil on the Water: Illicit Hydrocarbons Activity in the Maritime Domain

cargo.⁴⁰ More sophisticated schemes can involve large quantities of product, and very highly placed actors.

Nigeria suffers from maritime-linked subsidies fraud at the highest levels. While the country is one of the world's top oil producers, it imports nearly all its refined products, as its four refineries are chronically under capacity, or even out of commission. This problem has invited suspicion, as the ensuing lack of domestically produced fuel creates more openings for subsidies fraud by highly placed actors. According to Minister of Petroleum Resources Emmanuel Ibe Kachikwu, senior officials routinely divert imported fuel from storage depots to be shipped into neighboring countries at enormous profit, while Nigerians wait in line at retail stations.⁴¹

Oil Swaps

In the autumn of 2017, the Venezuelan government entered into negotiations with Swiss commodity giant Trafigura; the goal was to arrive at a long-term deal in which Venezuela would swap two hundred thousand barrels of crude oil per day for refined products provided by the trading house.⁴² Such deals are not unusual when oil-producing nations have either limited refining capacity or a large surplus of crude. The problem is that they create openings for fraud on both sides.

That potential was fully exploited in the era of Nigeria's Offshore Processing Arrangement (OPA), adopted under the Goodluck Jonathan government. In this scheme, as in the Venezuelan arrangement, the shortfall in domestic fuel was covered by giving crude oil to traders in exchange for refined product, resulting in opaque deals that allowed for fraud on a massive scale, mostly involving the misrepresentation of quantities of In some cases, oil exports are linked to trading compaoil lifted onto tankers and of fuel delivered. A recent investigation revealed one representative example of

same fuel to receive a second payment on the same the corruption involved: Duke Oil, a trading subsidiary of NNPC registered in Panama, lifted more than twelve metric tons of crude oil worth approximately \$24 billion onto tankers, while failing to return any refined product to Nigeria—a giveaway, not a swap.⁴³ According to an audit by the Nigeria Extractive Industries Transparency Initiative (NEITI), in 2015 alone the Nigerian government lost \$732 million to abuse of the OPA system, in addition to a \$498 million underdelivery of promised fuel.44 The Buhari government has since replaced the OPA with a Direct Sale Direct Purchase (DSDP) system, in which oil is delivered directly to refineries in exchange for fuel—an arrangement that may cut out the traders, but which remains open to criminal exploitation by other actors.

Opaque Trading and Ghost Companies

Major international trading houses, nearly all of them Swiss, still operate a huge and extremely opaque business around the world. From 2011 to 2012—years of extraordinary corruption under the Goodluck Jonathan government in Nigeria-Swiss firms bought half of Nigeria's documented sales of crude. 45 Such deals involving major trading houses unfold in a legal and regulatory twilight that can lend itself to fraudulent practices.46 The trading firm Gunvor, for instance, has ended its operations in the Republic of the Congo (Brazzaville) and is now under investigation by Swiss authorities for allowing a lax working environment that enabled fraud, embezzlement, and money laundering, in relation to a lucrative untendered oil contract. Related allegations against Gunvor, made by other observers, include influence peddling with the Russian government.⁴⁷ The role of commodity traders in maritime hydrocarbons crime has yet to be satisfactorily examined.

nies that barely exist. For instance, the Nigerian trading firms awarded annual lifting contracts for the country's



A bird's-eye view of ships along the coast in Singapore July 9, 2017. With over 90 percent of world trade occurring by sea, the maritime space is replete with opportunities for illicit activity, and the sheer scale of commercial traffic around trading hubs such as Singapore makes law enforcement difficult. REUTERS/Jorge Silva

crude are often shadowy operators. A 2017 investigation by leading Nigerian newspaper *Daily Trust* revealed that seven of the eighteen indigenous companies awarded contracts were not even registered with the Corporate Affairs Commission (CAC)—supposedly the one mandatory condition for consideration. These "ghost companies," for which the NNPC did not provide information when asked by reporters—and for which it may have deliberately listed misleading names—lifted \$3.5 billion worth of crude in the course of the year.⁴⁸ Though the oil departed in tankers, the money is effectively untraceable.

False Documentation

Maritime hydrocarbons crime can also take the form of fraudulent documentation, including falsified bills of lading, which may misrepresent the origins of illicit

product, or may alter dates to exploit changes in the price of oil and recover loading costs higher than those actually incurred.49

Maritime smuggling operations often deal in counterfeit paperwork and elaborate strategies to conceal the actual origin of illicit oil and fuel. One recently disrupted smuggling ring linking Libyan, Maltese, and Italian criminal organizations concealed itself by using counterfeit certificates of origin and layering intermediary companies between suppliers and final purchasers. Italian law-enforcement personnel were only able to map the network by using new technology that allowed for monitoring satellite phones.⁵⁰

In the Philippines, vessels carrying low-grade or adulterated fuel misrepresent their cargo as high-grade

^{40 &}quot;IMANI Africa Report: How to Prevent Fuel Fraud in Africa," Vanguard, April 21, 2016, https://www.vanguardngr.com/2016/04/imaniafrica-report-how-to-prevent-fuel-fraud-in-africa/.

⁴¹ Temitope Omolade, "Five Reasons Why Nigeria Ended Fuel Subsidies," Deutsche Welle, May 12, 2016, http://www.dw.com/en/fivereasons-why-nigeria-ended-fuel-subsidies/a-19255388.

⁴² Alexandra Ulmer and Marianna Parraga, "Exclusive: PDVSA in Talks with Trafigura to Swap over 10 Pct of Crude Output—Documents," Reuters, December 20, 2017, https://www.reuters.com/article/us-pdvsa-trafigura-contract-exclusive/exclusive-pdvsa-in-talks-withtrafigura-to-swap-over-10-pct-of-crude-output-documents-idUSKBN1EE2NH.

⁴³ Emman Ovuakporie and Johnbosco Agbakwuru, "Crude Oil Swap Probe: Reps Uncover Illegal Companies Used by NNPC," Vanguard, February 17, 2016, https://www.vanguardngr.com/2016/02/crude-oil-swap-probe-reps-uncover-illegal-companies-used-by-nnpc/.

⁴⁴ Bassey Udo, "Nigeria Loses N222 Billion in One Year in Shady Crude Oil Swap Deals-NEITI," Premium Times, December 29, 2017, https://www.premiumtimesng.com/news/headlines/253937-nigeria-loses-n222-billion-one-year-shady-crude-oil-swap-deals-neiti.html.

⁴⁵ Alexandra Gillies, Marc Guéniat, and Lorenz Kummer, Big Spenders: Swiss Trading Companies, African Oil and the Risks of Opacity (London: National Resource Governance Institute, 2014).

⁴⁷ Julia Payne, "Switzerland Widens Investigation into Gunvor Congo Republic Deal," Reuters, September 12, 2017, https://www. reuters.com/article/gunvor-congorepublic-corruption/update-2-switzerland-widens-investigation-into-gunvor-congo-republic-dealidUSL5N1LS4QO; Charles Bouessel du Bourg, "Republic of Congo: Gunvor, the Kremlin, Oil and Corruption," Africa Report, November 20, 2017, http://www.theafricareport.com/Central-Africa/republic-of-congo-gunvor-the-kremlin-oil-and-corruption.html.

⁴⁸ Daniel Adugbo, "Ghost Companies Lift N1.1tr Crude Oil," Daily Trust, December 17, 2017, https://www.dailytrust.com.ng/ghostcompanies-lift-n1-1tr-crude-oil.html.

⁴⁹ Peter Fowoyo and Theresa Tekenah, "N3.1bn Subsidy Fraud: How Eterna Oil MD, Others Forged 30 Documents to Defraud FG-Witness," Daily Times, November 17, 2017, https://dailytimes.ng/n3-1bn-subsidy-fraud-eterna-oil-md-others-forged-30-documentsdefraud-fa-witness/

⁵⁰ Matthew Vella, "Debono Used False Certificates and Maltese Notary's Signature to Gain Ministry Stamp," Malta Today, November 13, 2017, https://www.maltatoday.com.mt/news/national/82121/debono_used_false_certificates_and_maltese_notarys_signature_to_gain_ ministry_stamp#.Wmi4tJM-fUI.

product to fetch substantially higher prices per tanker. In prolific as the discrepancy between taxed, untaxed, Singapore, fraud often takes the form of falsified documentation about ship-to-ship transfers, covering up the theft of large quantities of product; the loss of content In a similar fashion, riverine-based evasion on rivers that can be masked by adulteration, or even by heating the remaining oil to temporarily expand its volume. In 2010, Kenya had to introduce monthly price controls to overcome the practice of engaging in ship-to-ship transfers on days with higher oil prices, as a way to generate fraudulent bills of lading.⁵¹ In numerous ports, counterfeit bills of lading are used, often with collusion from port or shipping personnel, to divert entire cargos to the black market. Around the world, AIS input can be doctored, or otherwise corrupted, to conceal illicit transfers of oil or fuel.

Off-the-Books Transactions

While the first of the reports in this series detailed some of the issues with "remaining on board" fuel, the use of false compartments, and fraudulent customs documents, other off-the-books transactions that occur in the maritime space result in fraudulent conversion of oil and fuel. Perhaps the best example, related by sources with firsthand knowledge, was a routine occurrence for years in Trinidad and Tobago: tankers would call at the Petrotrin oil terminal, fill up with product, and leave. For the workers, this was a routine event. But, the ship call and the discharge of product to the ship would not appear in any log books or records, meaning that the entire shipment was "off the books." Someone certainly received payment for the cargo, but it was not Petrotrin, the state-owned oil company.

Tax Evasion

In many countries where fuel is refined, the tax on refined product is assessed when it is designated for export, while it remains low cost and untaxed within the national jurisdiction. One well-placed source has indicated that Russia has used this dynamic as a means of developing relationships with specific states. National fuel not designated for export is stored in facilities several miles offshore, where foreign (primarily Chinese) ships can purchase the cheap fuel at domestic Russian prices—either for use in their vessels or for sale into the marketplace—saving the buyers considerable amounts of money and strengthening relations between the states. This sort of tax evasion is likely to become more

and subsidized fuels continues to widen.

serve as international borders provides for mobile fuel stations to move progressively down the bank of the lower-cost jurisdiction, while vessels from the higher-priced jurisdiction cross over to avail themselves of the cheaper fuel. Well-placed sources indicate that this is a problem on the Paraná river between Brazil and Paraguay.

Laundering

As detailed in the Ghana case study in the first report of this series, laundering stolen oil through offshore facilities is a lingering concern. In that instance, an offshore facility in Ghana—which was producing only ten thousand barrels per day, but had a maximum capacity of one hundred thousand barrels per day—was nevertheless exporting four hundred thousand barrels per day. The facility was being used to launder stolen Nigerian crude, which would be exported from the offshore site with a legitimate Ghanaian export certificate. Offshore oil infrastructure provides opportunities for flipping illicit cargoes to make them appear clean, without ever touching land.

Sanctions Busting

States constrained by sanctions often become sponsors, or even direct actors, in oil and fuel smuggling, abetted by profit-seeking criminal organizations, or even by other states pursuing their own geopolitical ends. The extent to which countries can exploit the maritime space to bust sanctions was made plain in 2017, when Russian tankers were found engaging in illicit ship-toship transfers to supply fuel to an increasingly isolated North Korea. In one typical case, a Russian tanker left the port of Slavyanka on the Sea of Japan with 1,600 metric tons of fuel, turned off its AIS transponder, and transferred its cargo to a North Korean tanker that had similarly "gone dark" before the rendezvous.⁵² In 2012, as Iran was hobbled by oil sanctions, vessels of the National Iranian Tanker Company (NITC) changed to flags of convenience, such as Tuvalu's, to circumvent sanctions; at the same time, as many as 70 percent of Iranian vessels turned off their AIS transponders in the course of their voyages.53

CONCLUSIONS AND RECOMMENDATIONS

nderstanding and addressing illicit hydrocarbons activity on land is a challenge; that challenge is only heightened when the illicit activity occurs on the water. Most maritime law-enforcement agencies are already struggling to address other growing maritime-security threats, and hydrocarbons crime is often relegated to the bottom of state priorities. But, wholly apart from its immediate costs in billions of dollars of lost revenues and profits, the second-order threats it poses—oil and fuel can be a magnet for piracy, an ingredient in cocaine production, a cover for trafficking operations, an aid to illegal fishing, a funding source for organized crime and terrorism, a necessity for sanctioned regimes, and a threat to the marine environment—concrete, concerted steps must be taken to make the world's waters less hospitable to hydrocarbons crime.

- States must recognize this problem, understand its scope, fully grasp its implications, and then prioritize law-enforcement efforts to confront it. If law-enforcement agencies are not backed by political will and senior support to tackle illicit oil and fuel activities on the water, this problem will never be addressed. Maritime law enforcement already grapples with a daunting array of issues, but "following the fuel" would, in many cases, afford these agencies visibility into some of their other concerns, such as trafficking drugs or poaching fish.
- At both the national and regional levels, legal frameworks need to be put in place that facilitate efficient and effective maritime interdiction of oil- and fuel-related criminality. Too often, the laws are inadequate for addressing this problem, making it impossible for law enforcement to have any meaningful effect. Improved laws must then be supported with interdictions and consistent prosecutions. Importantly, penalties for smuggling, theft, and fraud related to oil and fuel must take into consideration the high value of these criminal activities. If the penalties are not adequately calibrated, they will have no deterrent effect.
- As can be seen in the Gulf of Guinea, both national and regional efforts at maritime-security cooperation are the only way to comprehensively confront this problem on the water. Law-enforcement approaches

"...wholly apart from its immediate costs in billions of dollars of lost revenues and profits, the second-order threats it poses—oil and fuel can be a magnet for piracy, an ingredient in cocaine production, a cover for trafficking operations, an aid to illegal fishing, a funding source for organized crime and terrorism, a necessity for sanctioned regimes, and a threat to the marine environment concrete, concerted steps must be taken to make the world's waters less hospitable to hydrocarbons crime."

must become as cooperative as the criminal elements they seek to stop.⁵⁴ This requires internal cooperation in the form of whole-of-government processes, and international cooperation through frameworks and mechanisms that allow collaboration on law-enforcement matters across borders. Information sharing provides visibility into the transnational dynamics of illicit hydrocarbons activities. Criminals count on blind spots, so broader and collective vigilance is fundamental to addressing this problem.

■ Individual states must develop national maritime strategies that include not only robust legal frameworks, but also: effective monitoring, control, and surveillance (MCS) of the maritime space; enhanced capacity and capability for regulatory action and law enforcement; interagency cooperation that leads to efficient governance and vectored mitigation; and economic-development plans to replace illicit activity with viable and sustainable alternatives.

^{51 &}quot;The Untold Story of Fuel Shortage," Daily Nation, May 7, 2011, https://www.nation.co.ke/business/The-untold-story-of-fuel-shortage-/996-1158164-53kyeaz/index.html.

⁵² Faulconbridge, Saul, and Nikolskaya, "Exclusive: Russian Tankers Fueled North Korea Via Transfers at Sea-Sources," Reuters.

⁵³ Amir Paivar, "Iran Tries to Dodge Oil Sanctions," BBC, June 30, 2012, http://www.bbc.com/news/world-middle-east-18640746.

⁵⁴ Ian Ralby, "Cooperative Security to Counter Cooperative Criminals," Defence IQ, March 21, 2017, https://www.defenceiq.com/naval-andmaritime-defence/articles/cooperative-security-to-counter-cooperative



Men carry containers filled with gasoline in the bay of Rio Caribe, a town in the eastern state of Sucre, Venezuela October 30, 2015. Driven by a deepening economic crisis, smuggling across Venezuela's land and maritime borders—as well as illicit domestic trading—has accelerated to unprecedented levels and is transforming Venzuelan society. Although smuggling has a centuries-old history here, the socialist government's generous subsidies and a currency collapse have given it a dramatic new impetus. Picture taken October 30, 2015. REUTERS/Carlos Garcia Rawlins

- National, regional, and international law-enforcement bodies must coordinate their efforts, and must seek to understand and exploit the interconnectedness of maritime hydrocarbons crime with other forms of crime on the water—including piracy and illegal fishing, as well as trafficking in narcotics, weapons, and persons.
- Concrete countermeasures should be pursued. The marketplace for effective technology to address illicit hydrocarbons activity is growing. In the maritime space, molecular marking is the most effective means of distinguishing between legitimate, and smuggled or adulterated, fuel. That technology is most effective when combined with monitoring, which, in the maritime space, involves tracking de-
- vices on ships or a coastal-surveillance platform such as aerostat balloons, radar, drones, or some other form of imagery. In both cases, ensuring the data from the technology is admissible in court is vital to successfully prosecuting criminal activity.
- Governments and industry actors must coordinate their efforts, especially in the collection and sharing of data from rapidly advancing technologies that provide a clearer, more precise read on how products are moving through the supply chain.
- All stakeholders should use appropriate means to raise awareness of the extent and damage of hydrocarbons crime, including illicit activities in the maritime space.

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Atlantic Council

1030 15th Street, NW, 12th Floor, Washington, DC 20005

(202) 463-7226, www.AtlanticCouncil.org