The Economic Costs and Socio-economic Impacts of Maritime Threats in the Gulf of Guinea
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This report was written by Maisie Pigeon and Jay Benson. The project was coordinated by Giulia Nicoloso, CRIMSON Project Manager, and Ondrej Vosatka, Policy Officer (FPI).

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### Abbreviations

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<tr>
<td>BMP</td>
<td>Best Management Practice</td>
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<tr>
<td>CCTV</td>
<td>Closed-Circuit Television</td>
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<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species of Wild Fauna and Flora</td>
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<td>CPI</td>
<td>Corruption Perception Index</td>
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<td>CRESMAC</td>
<td>Regional Centre of Maritime Security in Central Africa</td>
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<td>CRESMAO</td>
<td>Regional Center for Maritime Security of West Africa</td>
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<td>CRIMSON</td>
<td>Critical Maritime Routes Programme Monitoring, Support and Evaluation Mechanism</td>
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<td>DEA</td>
<td>Drug Enforcement Agency</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>ECOWAS</td>
<td>Economic Community of West African States</td>
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<td>EEZ</td>
<td>Exclusive Economic Zone</td>
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<td>EU</td>
<td>European Union</td>
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<td>FAO</td>
<td>United Nations Food and Agriculture Organisation</td>
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<td>FARC</td>
<td>Revolutionary Armed Forces of Colombia</td>
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<td>GI-TOC</td>
<td>Global Initiative on Transnational Organized crime</td>
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<td>GSI</td>
<td>Global Slavery Index</td>
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<td>HRA</td>
<td>High Risk Area</td>
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<td>IBF</td>
<td>International Bargaining Forum</td>
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<td>IEA</td>
<td>Environmental Investigation Agency</td>
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<td>IMB</td>
<td>International Maritime Bureau</td>
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<tr>
<td>INTERPOL</td>
<td>International Criminal Police Organization</td>
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<td>ITF</td>
<td>International Transport Workers’ Federation</td>
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<tr>
<td>IUU</td>
<td>Illegal, Unreported and Unregulated</td>
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<tr>
<td>JWC</td>
<td>Joint War Committee</td>
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<td>K&amp;R</td>
<td>Kidnap and Ransom</td>
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<tr>
<td>MDA</td>
<td>Maritime Domain Awareness</td>
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<td>MDFC</td>
<td>Movement of Democratic Forces of Casamence</td>
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<td>MEND</td>
<td>Movement for the Emancipation of the Niger Delta</td>
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<td>MOU</td>
<td>Memoranda of Understanding</td>
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<tr>
<td>NDA</td>
<td>Niger Delta Avengers</td>
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<tr>
<td>OHI</td>
<td>Ocean Health Index</td>
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<tr>
<td>OPEC</td>
<td>Organisation of the Petroleum Exporting Countries</td>
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<tr>
<td>PCASP</td>
<td>Privately Contracted Armed Security Personnel</td>
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<tr>
<td>SATCOM</td>
<td>Satellite Communication System</td>
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<tr>
<td>STS</td>
<td>Ship-to-ship</td>
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<td>U.S.</td>
<td>United States</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNODC</td>
<td>United Nations Office of Drugs and Crime</td>
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<td>USD</td>
<td>United States Dollar</td>
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<td>YCoC</td>
<td>Yaoundé Code of Conduct</td>
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Disclaimer

Given the unlawful and clandestine nature of the illicit maritime activities analysed in this report, reliable data comprehensively capturing the scope, value, temporal variation of its impacts is sparse. As such and where necessary, this report utilises available data on correlating metrics to estimate the true measure of the analysed criminal typologies. While not uncommon, this process inherently places limitations on the accuracy of the quantitative analysis. Where such correlating metrics are adopted throughout this report, they very often have one or more of the following limitations:

- *Geographically narrow data* – data is restricted to an individual state
- *Missing data* – datasets are incomplete or contain historical gaps
- *Static data* – information has been collected only once with no time series observations
- *Confidential* – data is closed and not publicly accessible

In light of the above, the following explanatory notes outline specific data gaps found in the various sections:

*Drug Seizures* – The authors of this report acknowledge there are significant gaps in global and regional data quantifying macro trends in drug seizures and trafficking. Where seizure data does exist, it is often piecemeal, covering only one type of drug, one country, or individual seizures. Further, this information is often unavailable up to 2020, making it difficult to determine the volume of aggregate seizures in the maritime domain (in ports or from vessels), much less individual ports within the region.

*Wildlife Trafficking* – Wildlife trafficking data is often available via individual reports of seizures rather than aggregated by country or regional totals.

*IUU (illegal, unreported and unregulated) Fishing* – Reliable IUU fishing data in the region is predominantly limited to occasional estimates of IUU fishing catch and value in the region. This information is largely a product of time intensive studies that are not conducted on a regular basis, negating the opportunity for multi-year comparison. Even where such estimates do exist, they are based on very limited data and differ in methodology, limiting their utility as a basis for comparison.

*IUU Fishing Indices* – The quantitative study of IUU fishing is a relatively new field which has in very recent years spurred several aggregate indices attempting to rigorously capture different aspects of IUU fishing activity and risk. However, each of these existing measures has, as of yet, seen only one iteration, meaning they cannot be used to monitor a trend over time.

To calculate the cost of piracy and armed robbery at sea in the region, the report focuses on the direct spending by industry stakeholders to avoid and prevent incidents of armed robbery at sea.
transiting the Gulf of Guinea. The effects of piracy and armed robbery at sea are impossible to disaggregate from the negative impacts of the COVID-19 pandemic on global shipping, and as such, the study will assess the economic impacts on the shipping industry in the 2019, rather than 2020.

1 “Direct spending” is defined by the authors as those costs incurred by the commercial shipping industry as a direct result of piracy and armed robbery at sea incidents or whose sole purpose is to avoid or prevent incidents of piracy and armed robbery at sea. In other words, the commercial shipping industry would not incur these expenses if piracy and armed robbery sea did not pose a threat to commercial shipping in the region.
Executive Summary

Given the critical role of the maritime domain to security, governance, and prosperity in the Gulf of Guinea, both at sea and onshore, this report seeks to provide a clearer understanding of the trends in illicit activities at sea in the region and costs they impose, both financial and socioeconomic. The report looks specifically at three forms of maritime threats: piracy and armed robbery at sea, maritime trafficking of arms, wildlife, and drugs, and IUU fishing, across 19 states from Cabo Verde to Angola.

All three forms of maritime threats present significant challenges to the Gulf of Guinea states, and as such it is crucial to analyse their scope and prevalence in order to appreciate their impacts and develop strategies to mitigate against them.

While piracy and armed robbery at sea is a global issue, in recent years, the Gulf of Guinea is the most impacted of any region of the world. Overall, piracy and armed robbery incidents in the region have remained relatively stable in recent years. Between 2015 and 2016 incidents increased dramatically from 54 to 95. Between 2016 and 2019 the number of incidents has stabilised ranging between 95 and 112, with a slight decline of 112 to 98 between 2018 and 2019.\textsuperscript{2} In addition, piracy and armed robbery at sea in the region is particularly violent, with over 80% of incidents involving armed attackers.\textsuperscript{3} Kidnap for ransom, as a subset of piracy and armed robbery at sea, has more than doubled between 2015 and 2019.\textsuperscript{4} Historically, Nigerian waters have been the epicentre of the piracy and armed robbery at sea problem in the Gulf. However, the most recent data indicates that such activity has become more geographically dispersed, with an increasing share of incidents occurring in several neighbouring countries, such as Ghana, Benin, Gabon, Cameroon and Sao Tome and Principe, all easily reachable from the Niger Delta region.\textsuperscript{5}

In addition to piracy and armed robbery at sea, the Gulf of Guinea is also a hotspot for maritime trafficking of illicit goods. This report examined the illicit maritime trafficking of arms, wildlife, and drugs in the region. Of these, arms appear the least significant in the maritime domain, as the volume of maritime arms trafficking appears of limited scope in comparison to the larger illicit market for arms in the region. Illicit wildlife products and drugs, however, appear to be more closely linked to maritime trafficking. West and Central African states are a major source of the world’s illicitly trafficked wildlife products, including ivory, rhino horn, pangolin, and rare timber.\textsuperscript{6} Containerised cargo appears to be the most prominent form of transportation\textsuperscript{7} of such products out of the region.

\textsuperscript{5} International Maritime Bureau.
often to markets in East and Southeast Asia.\textsuperscript{8} Maritime drug trafficking in the region also represents a very significant concern, with opioids and cocaine appearing to be the most prominent illicit drugs trafficked via the Gulf of Guinea. Seizures and use of tramadol, for example, have been steadily rising in regional states in recent years.\textsuperscript{9} Tramadol is shipped into the region using a variety of methods including fraudulent manifests and import licenses and concealment in legitimate cargo. Maritime cocaine trafficking is also a persistent maritime security challenge. West Africa has long been a significant transhipment point for cocaine being moved from production centres in Latin America to lucrative markets in Europe. In 2017, the UNODC estimated that up to two thirds of Andean cocaine transited West Africa,\textsuperscript{10} with figures from 2018 indicating cocaine trafficking in the region was estimated to be worth USD 3 billion annually.\textsuperscript{11}

Lastly, this report examined trends around IUU fishing activity in the Gulf of Guinea. While a direct measurement of this clandestine activity is not possible, several related metrics point to high levels of IUU fishing activity in the region. Academics studying the issue have estimated that IUU catch in the region may be equivalent to 65\% of the region’s legal fisheries production. Research aggregating risk factors of potential IUU activity also indicate that Gulf of Guinea states, on average, see a higher confluence of IUU risk factors than the global average.\textsuperscript{12} Additionally the region sees comparatively high estimated levels of both unreported (estimated at 56.7\% of total catch by tonnage in 2018) and foreign fishing (the average percentage of foreign catch is 43.2\%, nearly double the global average of 23.1\%);\textsuperscript{13} these together may mitigate the potential economic benefits Gulf of Guinea states reap from their marine resources.

In addition to the scope of and trends in these forms of maritime threats, the report also seeks to highlight their costs to the shipping industry (in the case of piracy), the region and international community. Piracy and armed robbery at sea impose significant economic costs to the shipping industry. Factors such as increased insurance premiums, labour costs, ship protection measures, and the use of security escort vessels drive up the cost of shipping in the region. The report looks at these four factors to calculate an estimate of direct costs to the shipping industry of an average of USD 704.5 million annually. This is in addition to the tragic human costs to those seafarers and fishers operating in the region who have endured violence, robbery, and kidnapping.

Widespread maritime trafficking of illicit products has a variety of negative socioeconomic impacts on the Gulf of Guinea. Three of the most prominent of these are impacts on health, corruption, and conflict. Maritime drug trafficking in the region has the potential to spur increased drug usage and subsequent negative impacts on public health. While drug usage in the region is generally low by global standards there has been a slight increase in drug use disorders and some very significant

\textsuperscript{8} Ibid.
\textsuperscript{9} UNODC, \textit{At the Crossroads of Licit and Illicit: Tramadol and Other Pharmaceutical Opioids Trafficking in West Africa}, UNODC Research, 2021, \url{https://www.unodc.org/documents/nigeria/Tramadol_Trafficking_in_West_Africa.pdf}.
\textsuperscript{12} The Global Initiative Against Transnational Organized Crime, “IUU Fishing Index,” Global Initiative Against Transnational Organized Crime, 7 February 2019; \url{https://globalinitiative.net/analysis/iuu-fishing-index/}.
increases in drug related deaths in several regional states in recent years.\textsuperscript{14} Illicit maritime trade are also both facilitated by, and help fuel, corruption. Highly lucrative maritime trafficking of wildlife\textsuperscript{15} and cocaine,\textsuperscript{16} for example, have created entrenched systems of corruption among both port officials and high-level policy makers in some regional states, severely undermining governance and the rule of law. Finally, all three forms of maritime trafficking examined in the report have the potential to fuel conflict and instability in the region. Intra-state conflicts in which violent nonstate actors have access to the proceeds of trafficking of drugs and wildlife products have the potential to be longer in duration\textsuperscript{17} and higher in intensity.\textsuperscript{18} While there currently appears to be only limited direct evidence of links between violent nonstate actors and maritime trafficking in the region, the potential to tap into these illicit maritime economies in ways which make conflict in the region more intractable remains.

The prevalence of IUU fishing activity in the Gulf of Guinea has the potential to significantly undermine socioeconomic welfare in the region in diverse ways. First, IUU fishing appears to be contributing to a significant decline in fisheries health in the region. Over the past 25 years the percentage of fish stocks under threat in the region have more than doubled, with an estimated 43% of fish stocks in the region classified as either overexploited or collapsed in 2018.\textsuperscript{19} Should this degradation of fisheries health continue, it would have dire impacts on the coastal communities who depend on marine resources for both food security and employment. Fish and seafood makes up 26.2% of animal protein consumption in Central Africa and 34.1% in West Africa,\textsuperscript{20} and it has been estimated that up to a quarter of jobs in West Africa are linked to the fisheries sector.\textsuperscript{21} Furthermore, IUU fishing facilitates corruption and lead to the loss of significant and much needed government revenue.

Several cross-cutting gaps re-emerge throughout the analysis which may serve as a useful basis for a discussion of potential areas of policy prioritisation. Each of these areas offer opportunities to counteract maritime crime in the region through sustained policy attention and resourcing. For the full list of areas of policy prioritisation please consult the Conclusions section.

\begin{flushright}
\textsuperscript{21} Africa Progress Panel, \textit{Grain, Fish, Money: Financing Africa’s Green and Blue Revolutions}, 2014: 89.
\end{flushright}
Map of the area of study: the Gulf of Guinea

The Gulf of Guinea is a vast and diverse region with approximately 6,000 km of coastline, from Senegal to Angola, including Cabo Verde and Sao Tome and Principe. It is an important shipping zone transporting oil and gas, as well as goods to and from central and southern Africa. Piracy, armed robbery at sea, kidnapping of seafarers, smuggling and trafficking, and IUU fishing a major threat to the maritime domain and ultimately to the economic development of the entire region.

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Introduction

The Gulf of Guinea possesses great potential for blue economic growth due to its strategic location and abundant fisheries resources. However, maritime crime and illegal activities at sea have impacted the region for decades, making it one of the most complex maritime environments in the world. Coastal poverty and few economic alternatives, corruption, and limited regional maritime enforcement capabilities allow maritime crime to flourish, destabilising economic growth in the region and impacting land-based security across the continent. Despite the best efforts of regional governments and international actors alike, maritime insecurity remains a significant threat to Gulf of Guinea countries and their coastal communities.

A better understanding of illegal activities at sea in the Gulf of Guinea is of critical importance as its impacts are considerable in both the region itself and on the broader international community. As discussed in greater detail below, such activities have a variety of deleterious impacts. Piracy exposes seafarers and fishers in the region’s waters to extreme violence and undermines maritime trade. Illegal, unreported, and unregulated (IUU) fishing undermines the sustainability of the marine environment and the economic and food security of local communities. Whilst across the board, various forms of maritime trafficking help fuel corruption and conflict and undermine the rule of law.

The impacts of maritime insecurity reach beyond the region itself to the broader international community. For example, the international shipping industry has incurred in significant costs associated with piracy and armed robbery and thousands of seafarers from across the globe have been impacted by violence inflicted during armed robbery and kidnapping. IUU fishing activity by distant water fleets has undermined the legitimacy of international actors in the eyes of coastal communities. Maritime trafficking of drugs has helped fuel violence in Latin America and drug use in Europe. As such, it is in the interest of the entire international community to better understand maritime threats in the Gulf of Guinea so that policy makers from both within and outside the region can help craft more effective strategies to address their root causes and mitigate against their impacts.
Report outline

The report is divided in two sections, the first one focusing on the trends of armed robbery at sea, illicit maritime trafficking, and IUU fishing in the Gulf of Guinea. The second section analyses the economic cost of piracy on the shipping industry, and the socio-economic impacts of illicit trade at sea and IUU fishing on coastal communities.

Chapter 1 outlines the modern evolution of piracy and armed robbery in the region since 2015, including attacks against oil infrastructure by militant groups, robbery of vessels at anchorage, illegal oil bunkering, and kidnap-for-ransom. The section explores developing tactics and motivations, as well as changing targets. Chapter 2 on illicit maritime trade explores the trafficking of arms, drugs, and wildlife over the main maritime routes in the region. This section uses media reports, qualitative analysis and the limited quantitative data available to examine which illicit products travel through the Gulf of Guinea to identify the geographic areas of greatest concern. Chapter 3 analyses a variety of different measures to estimate the scale and cost of IUU fishing activity in the region.

The second section of the report draws from the data collected in the first three chapters. Chapter 4 assesses the economic cost of piracy on the shipping industry, considering costs like insurance, ship protection measures and others. Chapter 5 and Chapter 6 move their focus on the socio-economic impacts that maritime trafficking and IUU fishing are having on the coastal communities and how they affect health, livelihoods, food security and the level of corruption in littoral states of the Gulf of Guinea.

In the Conclusions, the report highlights potential areas of operation in light of the examination of the trends in and impacts of these various forms of maritime threats in the Gulf of Guinea.
Piracy and Armed Robbery at Sea

In its 2020 Annual Report, the International Maritime Bureau (IMB) referred to piracy and armed robbery incidents in the Gulf of Guinea as “particularly dangerous,” attributing this to over 80% of incidents that involved armed attackers and the frequency with which attacks were taking place against vessels in this region. The IMB noted that pirate groups in the Gulf of Guinea broke a record in 2020, with 130 seafarers kidnapped over 22 incidents, the highest ever recorded figure. The region accounted for 95% of all maritime kidnappings globally in the same year. Despite this clear geographical differentiation of the two phenomena, there is the tendency and directed against a ship or against persons or property on board such a ship, within a State’s internal waters, archipelagic waters and territorial sea”. Despite this clear geographical differentiation of the two phenomena, there is the tendency to group incidents under the same category “piracy and armed robbery at sea”. Such legal differentiation is not taken into consideration in the ICC-IMB Reports. This report will refer to criminal groups as “pirates and armed robbers” or simply as “pirates” as actors in this region are highly opportunistic and the geographic range of incidents can quickly evolve.

Incident Geography

In 2020, incidents of piracy and armed robbery against vessels spanned the waters from Guinea to Angola. Although incidents of piracy and robbery against vessels continue to be largely concentrated in and around Nigerian waters, it is interesting to note that between 2019 and 2020, piracy attacks and armed robberies were reported more numerous and in the waters of more coastal countries in the region, than the previous five years. While most perpetrators are believed to hail from the Niger Delta in Nigeria, the investigation of attacked vessels revealed various national currencies were recovered following a June 2020 incident, suggesting that some of the actors are

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23 Article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) defines piracy as any illegal act “on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft; (ii) against a ship, persons or property in a place outside the jurisdiction of any State”. On the contrary, Resolution A.1025(26) (Annex, paragraph 2.2) of the Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery Against Ships of the International Maritime Organisation (IMO), armed robbery against ships is defined as “any illegal act of violence or detention or any act of depredation, or threat thereof, other than an act of piracy, committed for private ends against a ship, aircraft, persons or property on board such a ship, within a State’s internal waters, archipelagic waters and territorial sea”. Despite this clear geographical differentiation of the two phenomena, there is the tendency to group incidents under the same category “piracy and armed robbery at sea”. Such legal differentiation is not taken into consideration in the ICC-IMB Reports. This report will refer to criminal groups as “pirates and armed robbers” or simply as “pirates” as actors in this region are highly opportunistic and the geographic range of incidents can quickly evolve.


from/located in neighbouring countries. This trend in the wider geographical localisation of incidents has continued throughout 2021.

*Figure 1: Mapping of piracy attacks between 2015 and 2019*

<table>
<thead>
<tr>
<th>2015</th>
<th>2016</th>
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<tbody>
<tr>
<td><img src="image1.png" alt="Map of Piracy Attacks 2015" /></td>
<td><img src="image2.png" alt="Map of Piracy Attacks 2016" /></td>
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<table>
<thead>
<tr>
<th>2017</th>
<th>2018</th>
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<tbody>
<tr>
<td><img src="image3.png" alt="Map of Piracy Attacks 2017" /></td>
<td><img src="image4.png" alt="Map of Piracy Attacks 2018" /></td>
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</tbody>
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Figure 2: Mapping of piracy attacks 2020

In its annual reports, the IMB collects data on anchorage locations with more than three incidents in a single year.

Figure 3: Combined data on incidents at anchorage, 2015-2020

Over the course of the past five years, Lagos and Apapa in Nigeria account for nearly 40% of total incidents at anchorage. Other anchorages of note include Pointe Noire in the Republic of Congo, Takoradi in Ghana, Cotonou in Benin, and Freetown in Liberia. While much of the activity taking place at anchorage is considered petty crime and is primarily focused on theft of cargo, equipment, or crew’s possessions, Stable Seas’ 2019 State of Maritime Piracy report indicates that violence, hijackings, and kidnappings have occurred. For example, in 2019, “vessels were hijacked at Lomé Anchorage, Togo, and crew members were kidnapped from anchorages at Bonny, Nigeria; Cotonou, Benin; and Douala and Limboh, Cameroon.”

Box 1: Gulf of Guinea piracy hotspot: Nigeria and the Niger Delta

While incidents of piracy and robbery against vessels occur across the entire region, there are certain hotspots which experience high concentrations of incidents.

One such area is the Exclusive Economic Zone (EEZ) of Nigeria. The graph below shows incidents in Nigerian waters compared to incidents in the rest of the region since 2015.

In three of the five years analysed, the number of incidents inside the Nigerian EEZ were roughly equal to those outside it. In 2017, the number of incidents in the Nigerian EEZ were roughly double the number of incidents in the rest of the region.

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31 Authors’ analysis of data from the 2015-2020 IMB Reports.
32 Interview – JM.
2020 saw an unusual divergence from the previously seen patterns in the geographic distribution of incidents. As the graph below highlights, for the first time in recent years the number of piracy and armed robbery incidents outside the Nigerian EEZ far exceeded those within it.

Incidents in Nigerian EEZ vs. rest of the region\textsuperscript{34}

It is unclear if this is an anomalous occurrence or if it signals the start of a sustained shift. While Nigeria has recently initiated several new maritime enforcement initiatives such as the Deep Blue\textsuperscript{35} and Falcon Eye\textsuperscript{36} projects, these initiatives were not fully operationalised before the summer of 2021. As such, it would be difficult to consider them as directly influencing this trend.

Records of Niger Delta coastal communities targeting boats “on an ad hoc basis, following opportunities”\textsuperscript{37} date back to the 1990s. Politically motivated militant groups like the Movement for the Emancipation of the Niger Delta (MEND), active from 2006-2009 and the Niger Delta Avengers (NDA), active between 2016 and 2017 also played a role in maritime insecurity in Nigeria’s waters; both groups initially targeted onshore oil infrastructure, kidnapped oil workers, and eventually moved to attacking undersea pipelines, offshore platforms, and tankers in an attempt to force production shutdowns. These aggressions often carried far-reaching implications:

\textsuperscript{34} Authors’ analysis of data from the 2015-2020 IMB Reports.
In June 2008, an attack carried out by MEND against Shell’s Bonga oil field cut Nigeria’s oil production by one-tenth after it forced a shutdown of the site.\(^{38}\)

Many experts on piracy and robbery against vessels in the region acknowledge that it is likely that the most sophisticated pirate groups, such as those hijacking vessels far from shore, originate in the Niger Delta.\(^{39}\) Further, kidnap for ransom incidents remain concentrated in Nigerian waters: kidnapped crew are almost always held hostage in camps in the Niger Delta\(^ {40}\) during ransom negotiations.

Meanwhile, it is documented that “in contrast to kidnapping incidents, the highest concentration of successful hijacking incidents in the last ten years in the Gulf of Guinea occurred off the coasts of Togo and Benin.”\(^ {41}\) This is likely related to several ways in which criminal groups exploit gaps in maritime enforcement capability, including the availability of so-called “easy targets” (local vessels without extensive self-protection measures) in Togo and Benin, and the presence of maritime patrols in Nigerian waters pushing criminal groups into the waters of neighbouring states who lack the same levels of maritime enforcement capabilities.\(^ {42}\) As a recent UNODC study on Niger Delta pirate groups notes, while Nigerian and Cameroonian forces have successfully driven down the number of successful incidents inside the Nigerian exclusive economic zone, “this has not resulted in an overall reduction of piracy incidents”\(^ {43}\). Rather, the pirate groups have demonstrated their resourcefulness by expanding their area of operations further offshore.

Beginning in 2015, but with even more increasing frequency since then,\(^ {44}\) pirate groups have demonstrated the capability to operate further out at sea. This is likely the consequence of an array of factors, including concentrated counterpiracy forces along the coast and pirate groups’ acquisition of equipment which allows deep offshore operations, such as speedboats and satellite navigation equipment.\(^ {45}\) The extended range of operations is concerning because this translates to a higher degree of unpredictability in attacks\(^ {46}\) in addition to making it more difficult for regional and national maritime enforcement authorities to formulate responses. Experts have attributed the geographic expansion to several factors, including “the lack of effective enforcement in waters neighbouring

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42 Interview - LJ, 10 June 2021.
43 Ibid.
44 Ibid.
45 Ibid.
Nigeria” and the availability of easier targets - “vessels are less likely to be hardened against attack and less likely to have recommendations of Best Management Practice (BMP) on West Africa in operation.”

In response to a sustained high number of attacks, the high-risk area in the Gulf of Guinea was extended in November 2020. Seafarers transiting the “International Bargaining Forum (IBF) Extended Risk Zone” are entitled to receive a “bonus equal to basic wage, payable only on the day the vessel is attacked; doubled compensations for death and disability if they occur on the day the vessel is attacked; and increased BMP level.”

*Figure 4: High Risk Area extension – 2020*

This differs slightly from those entitlements allotted to those seafarers transiting the “IBF’s High Risk Area,” which includes bonuses equal to basic wages and are payable for the duration of the vessel’s

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48 Ibid.
50 Ibid.
stay or transit through the region; doubled compensation for death or disability; the right to refuse transit through the area, and increased security requirements.\textsuperscript{51}

**Incident Typology**

Piracy in the Gulf of Guinea takes on a variety of forms, and groups may employ any combination of “incident types” classified in the graph below. As the graph demonstrates, various types of incidents were observed every year from 2015 to 2019. Criminal groups in this region are opportunistic, explaining to an extent why certain types of incidents rise or fall each year. This next section examines how the modus operandi of criminal groups in the region has evolved and fluctuated over time.

*Figure 5: Typology of piracy incidents 2015-2019\textsuperscript{52}*

It is worthwhile to note that most of the incidents in the Gulf of Guinea do not take place in international waters and thus are not strictly considered piracy according to the UNCLOS definition.\textsuperscript{53} Because the end impact on victims of both piracy and armed robbery against vessels is the same, this report will occasionally refer to the collection of crimes as “piracy” but will attempt to disaggregate them where possible.

**Armed robbery at sea**

Armed robberies at sea entail criminal perpetrators stealing (or attempting to steal) from a vessel, including personal effects belonging to members of the crew, ship stores, or equipment. Not all

\begin{itemize}
\item \textsuperscript{51} “IBF List of Designated Risk Areas, with Applicable Benefits (as of 1\textsuperscript{st} November 2020),” International Bargaining Forum, November 2020.
\item \textsuperscript{52} Authors’ analysis of data from the 2015-2019 Oceans Beyond Piracy and Stable Seas, State of Maritime Piracy reports 2015-2019.
\item \textsuperscript{53} See footnote \textsuperscript{n1}.
\end{itemize}
perpetrators are armed and such incidents can occur while a vessel is anchored at port, at anchorage, or while underway. In the Gulf of Guinea, pirate groups flexibly shift their strategies and mode of operation between kidnap for ransom and robbery. What may start as a kidnap for ransom attempt can easily turn into robbery. Most robberies in the region are considered petty theft, taking place at or close to ports or anchorage areas. In 2020, the Gulf of Guinea reported 51 incidents of robberies in ports and anchorages, with Nigeria being on top of the list (12 incidents reported in Brass and 10 in Lagos). Though improving, security remains limited in many regional ports, as 2020 reported an increase of 96% (only 26 incidents registered in 2019).

Unsurprisingly, armed robberies are likely to entail a greater degree of violence against seafarers than unarmed robberies: of the recorded incidents of unarmed robberies in 2016, “in most of the successful boarding, the perpetrators escaped when they were discovered by crew members who then sounded the alarm.”

Table 1: Armed vs unarmed robberies in the Gulf of Guinea 2015-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Armed</th>
<th>Unarmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>2016</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>2017</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>2018</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>2019</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

In instances of armed robberies, crew members are put at higher risk, as the perpetrators typically carry weapons such as knives or guns. These crimes, particularly those which take place at ports, are highly opportunist and as such, reliable data about the identities of perpetrators is unavailable.

Hijack for cargo theft

The region’s vast oil wealth and the bevy of vessels related to the oil and gas industry transiting the region makes tankers a natural target for pirate groups. Hijacking for cargo theft requires considerable coordination among several actors: once a vessel is overrun, the criminal actors transfer the oil cargo to another vessel in a ship-to-ship (STS) transfer or to onshore storage facilities. The stolen oil cargo may later be sold on the black market.

Hijacking for cargo theft started to decline considerably in 2015, likely attributable to the global price of oil, which fell 44% between June and December in 2014. At the peak of hijacking for cargo theft,

around 2010-2015, groups regularly held crew members temporarily hostage as they siphoned oil onto another vessel. Further, these pirate groups were known to occasionally and opportunistically kidnap a few high-ranking crewmembers for ransom\textsuperscript{62} as a “safeguard” in case authorities responded.\textsuperscript{63} During this period, the level of violence against seafarers was considerably higher than what was observed in Somali piracy incidents, primarily during the initial attack, where the crew were of secondary concern to pirate groups.\textsuperscript{64}

Cargo theft takes a substantial amount of time to plan and execute, theoretically allowing naval and law enforcement authorities time to respond. When oil prices were high, the risk was generally deemed acceptable to pirate groups. However, when the global price per barrel of oil dropped in mid-2014 and continued to drop through much of 2015,\textsuperscript{65} the calculus changed for pirate groups operating in the region. Though incidents of hijacking for cargo theft are fewer in 2018, pirates captured the product tankers \textit{Barrett} and \textit{Pantalena},\textsuperscript{66} illustrating the adaptability and opportunism of pirate groups in the region. An expert interviewed for this study believes that pirate groups in the region will return to hijacking vessels for cargo theft, but this will likely require global oil prices rising sufficiently to ensure the risk-to-reward ratio is favourable.\textsuperscript{67} Consequently, tanker crews and operators should remain vigilant and continue to monitor developments closely.

Kidnap for ransom

Kidnap for ransom at sea entails a pirate group taking at least one member of a crew hostage, in order to extort a ransom payment for their safe return.\textsuperscript{68} In the Gulf of Guinea, when crewmembers are kidnapped for ransom, pirate groups typically remove them from their vessel, and hold them in camps onshore in the Niger Delta region. Pirate groups based in the Niger Delta region can operate deeply offshore, reaching locations from the waters of Ghana to those of Angola.


\textsuperscript{63} Interview - CM, 19 May 2021.


\textsuperscript{65} WTI Crude Oil Prices - 10 Year Daily Chart,” MacroTrends, accessed 6 May 2021, \url{https://www.macrotrends.net/2516/wti-crude-oil-prices-10-year-daily-chart}.


\textsuperscript{67} Interview - LJ, 10 June 2021.

\textsuperscript{68} As there is no official definition for kidnap for ransom at sea, it is difficult to categorise the different nuances of the phenomenon. According to the \textit{International Convention against the Taking of Hostages}, kidnapping entails actions which “seizes or detains and threatens to kill, to injure or to continue to detain a hostage in order to compel a State, an international intergovernmental organisation, a natural or juridical person, or a group of persons, to do or abstain from doing any act as an explicit or implicit condition for the release of the hostage.” However, this definition is not completely applicable to the concept of kidnap for ransom at sea. In this report, we will refer to kidnap for ransom at sea as the kidnap of at least one member of a crew by pirates/armed robbers, in order to extort a ransom payment for their safe return.
In recent regional history, kidnapping for ransom, a tactic long employed by pirates off the coast of Somalia, required much less organisation than hijacking for cargo theft and gave authorities considerably less time to respond to an incident. This advantage gave pirates more time to disappear from the attacked vessel and retreat to their hideouts in the Niger Delta with their hostage(s) in tow. After the fall in oil prices, pirate groups operating in the Gulf of Guinea largely turned to kidnapping seafarers for ransom as the primary means of generating profit. In 2015, one incident of cargo theft was reported in the region, compared to five reported in the year prior. An additional sharp spike in kidnapping for ransom incidents was observed between 2015 and 2016, with 18 incidents recorded in 2016. Aside from robbery, kidnap for ransom incidents have made up most incidents from 2015 to the present.

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During the initial spike in kidnapping for ransom incidents in 2015-2016, pirates typically targeted high-ranking members of the crew, such as the captain, chief engineer, or first mate – most likely a holdover tactic from hijacking for cargo theft. Pirates held hostages onshore while ransom negotiations were being conducted, which on average lasted from two to four weeks.\(^72\) By 2019, the duration of captivity for hostages ranged from two to 84 days, and the average length of captivity rose to almost five weeks.\(^73\)

*Figure 7: Number of crew kidnapped between 2015 and 2020\(^74\)*

![Graph showing number of crew kidnapped between 2015 and 2020]

*Figure 8: Number of vessels hijacked between 2015 and 2020\(^75\)*

![Graph showing number of vessels hijacked between 2015 and 2020]

For years, the Gulf of Guinea has represented most maritime kidnappings globally, as reported by the IMB. In 2019, the region accounted for 90% of global maritime kidnappings, an increase from 50% in 2018.


\(^{74}\) Authors’ analysis of data from the 2015-2020 IMB Reports.

\(^{75}\) Ibid.
From 2018 to 2019, the number of crew kidnapped in the Gulf of Guinea increased by more than 50% from 78 to 121, with 64 crew members kidnapped across six separate incidents in the last quarter of 2019 alone.\(^{76}\)

Whilst the number of kidnappings at sea in the Gulf of Guinea has been increasing since 2015 (the year of the first global oil crisis), 2020 resulted to be one of the worst years to date: the region represented 95% of all crewmembers kidnapped globally, with 130 crew taken in 22 separate incidents.\(^{77}\) Although most attacks occur in Nigerian waters, the problem has regional connections. In the first few months of 2020, anchorages such as Cotonou (Benin), Lomé (Togo), Limbe (Cameroon), Douala (also in Cameroon) and Port-Gentil (Gabon) were targeted by pirates.\(^{78}\) The surge in the number of kidnappings can most likely be attributed to the decline of previously lucrative income streams. Both pirates and militant groups have traditionally benefited from the hijacking and re-selling of oil products on the black market. The collapse of oil prices caused by the Organisation of the Petroleum Exporting Countries (OPEC) overproduction exacerbated by a drop in demand due to COVID-19 led to a big reduction in oil-related crime at sea;\(^{79}\) fuel theft, illegal bunkering, and the re-sale of oil cargoes on the black market all became less frequent and profitable. Indeed, cheap oil that would not be quickly sold raises the emergence of alternative (and more lucrative) sources of income for pirates and criminal groups previously involved in oil theft. As mentioned above, kidnap for ransom has been used as a tool by pirates in the Gulf of Guinea for several decades, in 2020, the crews, rather than the oil, became the most valuable asset.\(^{80}\)

**Table 2: Number of crewmembers kidnapped\(^{81}\)**

<table>
<thead>
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<tbody>
<tr>
<td></td>
<td>19(^{82})</td>
<td>34(^{83})</td>
<td>65</td>
<td>78</td>
<td>121</td>
<td>130</td>
</tr>
</tbody>
</table>

2021 saw a decline in the number of kidnapping incidents with a small drop in the number of incidents from January through June 2021 compared to the same period in 2020 (50 versus 54): pirates took 50 seafarers hostage until June 2021, compared to 49 in the same period in 2020.\(^{84}\) However, criminal groups in the Gulf of Guinea have demonstrated increased capabilities to kidnap more seafarers per incident; “abductions of more than 10 people have become increasingly

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\(^{81}\) Authors’ analysis of data from the 2015-2020 IMB Reports.

\(^{82}\) 74 seafarers in total were either temporarily held hostage during an STS transfer (55) or kidnapped from the vessel (19).

\(^{83}\) 100 seafarers in total were either temporarily held hostage (66) or kidnapped from the vessel (34).

commonplace, with reported cases of up to 15 crew kidnapped over one single attack. Nevertheless, according to the IMB, crew kidnappings in the region have dropped with only one crew member kidnapped between July and September 2021, compared to 31 crew members taken in five separate incidents during the same period in 2020.

Figure 9: Kidnap for ransom attacks in the Gulf of Guinea against merchant ships engaged in international trade

Another incident demonstrated an unusual development in the region, in which a fishing vessel hijacked in February 2021 was believed to have been used by pirates to attack other vessels: the fishing vessel, Gabon-flagged Lianpengyu, was boarded and hijacked off the coast of Gabon before another vessel in the region reported “sighting a small boat being launched from a mother vessel that is possibly the fishing vessel.” The same group is believed to have then boarded the Maria E roughly 100 nm off of Sao Tome and Principe and was also suspected in a suspicious approach against the Madrid Spirit. The Gabonese Navy intercepted the vessel after the perpetrators abandoned it and found that 10 members of the crew had been kidnapped.

The use of motherships is uncharacteristic for the Gulf of Guinea, but the tactic of employing fishing vessels to extend operational range and duration of piracy operations at sea has been observed in other regions where piracy is or has been common, including off the Horn of Africa (The International Association of Independent Tanker Owners states that pirates operating off the coast of Somalia were at one point using “at least 20 seized vessels as mother ships to launch attacks in the region.”).

86 “Piracy in the Gulf of Guinea Falls in 2021,” Business Day, 26 October 2021, https://businessday.ng/news/article/piracy-in-the-gulf-of-guinea-falls-in-2021/. Data include both attempted attacks (anything from approaching a ship to actually boarding it, but failing to take any hostages) and successful attacks (at least one crew member kidnapped).
88 Ibid.
To reach targets so far offshore, pirates have increasingly made use of motherships – large vessels that can operate further offshore and for longer periods of time. Some groups have modified speedboats, often tethered to motherships, which use one lower powered engine for transiting, while the more powerful second engine is used for attack and boarding. At the time of writing, the Lianpengyu incident does not represent a pattern in the region, but these developments should be monitored closely.
Illicit Maritime Trade

The maritime domain in the Gulf of Guinea is a facilitating environment for a variety of illicit maritime trade. Poverty and unemployment in coastal communities incentivise a turn to illicit maritime economic activity to make ends meet. At the same time, regional navies and maritime law enforcement agencies lack the maritime domain awareness (MDA) capacities to detect potential maritime trafficking and assets for interdiction. Port monitoring and cargo control systems leave gaps that facilitate maritime trafficking. For example, standards of cargo control, security, and screening can vary significantly across terminals within a single port. While internationally managed cargo terminals may have fairly robust security and screening, conventional terminals operated by authorities with limited capacities and dealing with non-containerised cargo, may not have the same precautions in place and as such are more prone to the offloading and embarkment of illicit goods.

Moreover, in some states entrenched systems of corruption allow large scale maritime trafficking activity to occur with relative impunity. The following section explores the scope and trends in three illicit maritime trade in the region: arms, drugs and illicit wildlife products.

Arms

While quantitative data on arms trafficking in the region is sparse and often not comparable over time, all available data indicates that levels of maritime arms trafficking are relatively low in comparison to both other forms of illicit maritime trade and shore-based arms trafficking in the region.

The best available sources of data on global arms trafficking often rely on country reporting of seizures which introduces two significant challenges: 1) most countries in the region do not participate in these report structures, and 2) seizures are by nature a smaller and often unrepresentative sample of the larger phenomenon. Moreover, the maritime domain plays a secondary role in arms trafficking. Globally, only 6% of arms trafficking seizures occur from vessels at sea or in port. However, while instances of maritime arms trafficking are rare in comparison to arms trafficking onshore, when they do occur, it is often in much larger volumes. Instances of

93 Interview by author with member of WECAPS program, a European Union capacity building program focused on port governance and security in the Gulf of Guinea. Conducted June 3rd, 2021.
maritime arms trafficking contain, on average, five times more weapons than onshore seizures.\textsuperscript{98} According to UN arms seizure data, between 2016 and 2017, while only 6% of cases of firearms seizures where transported on vessels, these seizures, on average, saw nearly 19.8 weapons seized, as compared to an average of nearly 1.9 and 4.4 weapons in seizures from vehicles and planes respectively.\textsuperscript{99} In a recent example of large scale maritime arms trafficking in May 2021 a U.S. Navy vessel intercepted a stateless dhow in the Arabian Sea and discovered thousands of anti-tank missiles, thousands of assault rifles, hundreds machine guns, sniper rifles, and grenade launches, and other military equipment.\textsuperscript{100}

Most illicit arms in the region appear to come from two sources: domestic stocks and trafficking routes across the Sahel. The region’s history of conflict has left it awash with arms. The African Union approximates that of the estimated 50 million weapons in Africa, less than 11 million are held by militaries and law enforcement, while the other 40 million are held by civilians and violent nonstate actors.\textsuperscript{101} Of those 40 million weapons outside government control, only roughly 5.8 million are officially registered.\textsuperscript{102} These so-called ‘legacy weapons’ form the basis of significant domestic and regional black markets for firearms.\textsuperscript{103} In addition to legacy weapons from past conflicts, another significant domestic source of illicit arms is diversion from national stockpiles.\textsuperscript{104} Weapons may be stolen or sold from the holding of national armed forces and circulated domestically or moved across porous land borders. One example of this is ECOWAS-marked weapons (AK-pattern rifles) discovered among a weapons cache in Kumasi, Ghana in 2015 which were determined to have been diverted from a stockpile in Cote d’Ivoire.\textsuperscript{105} In other cases, arms may be seized from armed forces in the region after raids and attacks by armed groups. Boko Haram, for example, has seized significant quantities of weapons following violent encounters with Nigerian and Cameroonian armed forces.\textsuperscript{106}

When arms are moved across borders, this tends to be done via land routes. Conflict in the Sahel and the large-scale looting of stockpiles after the Gaddafi regime are likely to be the primary sources of arms trafficking in the Gulf of Guinea, as opposed to those moved through the maritime space.\textsuperscript{107}

But this is not to say that maritime arms trafficking in the Gulf of Guinea does not occur. Namely, Nigeria appears to be one of the hotspots for this kind of activity. Indeed, in September 2017,
Nigerian authorities seized 1,100 pump-action shotguns at Tin Can Island Port Complex in Lagos, after seizing 661 such weapons in January and 440 in May of the same year, all originating from Turkey.\textsuperscript{108}

\textit{Photo 1: Nigerian Customs Police inventorying the rifles seized in Lagos on January 2017}\textsuperscript{109}

This combination of weapon type, origin and destination seems to point towards a trend, as similar Turkish-made weapons were recovered in northern Nigeria between 2012 and 2016 that appear to contribute to violent intercommunal conflict in the country’s Middle Belt and north. Previous years have also seen the seizure of heavier weapons at Nigeria’s ports such as the discovery of mortars and rockets from Iran seized in Lagos in 2010.\textsuperscript{110} There have also been more limited reports of small fishing vessels being used to make small-scale arms movements within the region, between Nigeria and Cameroon,\textsuperscript{111} for example. In summary, maritime arms trafficking in the Gulf of Guinea appears to occur on a very limited scale and in relatively isolated incidents. The trade may be underestimated given the relatively weak port monitoring and security in the region but given the ready supply of illicit arms from domestic black markets and overland routes through the Sahel, there is little indication that maritime arms trafficking is a significant contributor to this larger issue.

**Drugs**

Maritime drug trafficking, by contrast, is a significant and growing challenge in the region. Several factors play into the Gulf of Guinea’s central role in the global illicit drug trade including corruption, weak port monitoring, limited maritime domain awareness, and its strategic location between some of the world’s largest illicit drug production centres in Latin America and lucrative markets in Western


\textsuperscript{109} Customs discover 1,100 pump-action rifles at Lagos port, Channels TV https://www.channelstv.com/2017/09/11/breaking-customs-discover-1100-pump-action-rifles-at-lagos-port/


\textsuperscript{111} Agnes Ebo’o, “Cameroon’s customs agency said to be the most corrupt,” ENACT Observer, April 17 2019, https://enactafrica.org/enact-observer/cameroons-customs-agency-said-to-be-the-most-corrupt.

*Cannabis*

Cannabis use in the region at 12.4% is significantly higher than the global average of 3.9%, but the quality of cannabis produced in the region is generally low and overwhelmingly destined for local consumption, limiting the potential for profitable trafficking to other regional markets around the globe.\footnote{Ibid.} In addition, as local prices for cannabis are quite low by international standards, the potential for profitable trafficking of cannabis into the region also appears limited.\footnote{UNODC, *Marijuana (herb) Retail and wholesale prices and purity levels, by drug, region and country or territory*, UNODC Accessed August 2 2021, https://www.unodc.org/unodc/secured/wdr/Prices_CannabisType.pdf.} Therefore, maritime trafficking of cannabis is very unlikely to occur at significant levels.

*Synthetic drugs*

In contrast the production and trafficking of synthetic drugs appears to be an increasing challenge across the Gulf of Guinea. Methamphetamine production appears to be spreading through the region and increasing in volume as more countries have reported a growing number of seizures in recent years.\footnote{UNODC, *Global Synthetic Drugs Assessment 2020*, UNODC, November 2020: 19, https://www.unodc.org/documents/scientific/Global_Synthetic_Drugs_Assessment_2020.pdf.} Seizures of the drug in Nigeria alone increased from 177 kg in 2012 to 1.3 tonnes in 2017.\footnote{Mouhamadou Kane, “What is Driving Nigeria’s Growing Meth Market?” *ISS Today*, 10 September 2019. https://issafrica.org/iss-today/what-is-driving-nigerias-growing-meth-market.} While this, of course, does not tell us about the degree to which maritime trafficking of the drug occurs, it does highlight the growing scale of its presence in the region. Methamphetamine production appears to occur in several countries in the region including Nigeria, Ghana, Benin, and Cote d’Ivoire, from which it is trafficked via both air and sea\footnote{UNODC, *Global Synthetic Drugs Assessment 2014*, May 2014: 14, https://www.unodc.org/documents/scientific/2014_Global_Synthetic_Drugs_Assessment_web.pdf.} to feed growing demand in East and Southeast Asia, Oceania, and Europe.\footnote{UNODC, *Marijuana (herb) Retail and wholesale prices and purity levels, by drug, region and country or territory*, UNODC Accessed August 2 2021, https://www.unodc.org/unodc/secured/wdr/Prices_CannabisType.pdf.} That said the available information on this trafficking route and related seizure data available is focused on trafficking via air travel and couriers rather than maritime routes. Therefore, the extent to which maritime trafficking of synthetic drugs out of the region at any significant levels remains unknown.\footnote{Ibid.}
Opioids

Opioids, particularly tramadol use within the region has increased significantly in recent years. In Nigeria and Benin for example, tramodol now appears to be the second most consumed drug after cannabis.\(^{120}\) Seizures of the drug in the region are on the rise as well. In Cote d’Ivoire, tramadol seizures across the country increased substantially from 7 kg in 2015 to nearly 44 tonnes in 2018.\(^ {121}\) Ports in Togo, Benin, and Nigeria appear to be at the epicentre of the drug’s maritime trafficking into the region, as major ports in these states have seen repeated seizures in the period between 2013 and 2018.\(^ {122}\) Tramadol, produced largely in India, is trafficked into the region via maritime shipments, using a variety of methods including fraudulent manifests and import licenses and concealment in legitimate cargo.\(^ {123}\) It is also important to note that if seizures in individual countries are to be taken as a reasonable proxy measurement of maritime trafficking volumes, the specific countries of entry in the region appear to shift significantly and rapidly year on year.\(^ {124}\) For example, for countries with available data between 2011 and 2018, extremely volatile trends are observed. Cote d’Ivoire’s seizures jumped from 26 kg to 43,942 kg from 2017 to 2018. In contrast Nigeria’s seizures fell from 92,259 kg in 2017 to 22,562 kg in 2018. Benin’s seizures spiked and fell from 10,428 kg in 2014 to 111,820 kg in 2015 and less than 1 kg in 2017.\(^ {125}\) The patchy data may indicate that data on such seizures is based on a small number of large shipments, reporting issues in the data, and traffickers rapidly shift their preferred entry and transit points or a combination of all three.

Cocaine

Finally, the Gulf of Guinea remains an important transhipment point in the trafficking of cocaine from Latin America to Europe. Due to weak monitoring, high levels of institutional corruption, and convenient geographical location, the Gulf of Guinea has become critical for the movement of cocaine from South America to Europe. In 2011 it was estimated that 25-35% of Andean cocaine transited West Africa.\(^ {126}\) By 2017 the UNODC estimated that figure had increased to two-thirds.\(^ {127}\) Cocaine trafficking appears to be the most lucrative of the region’s maritime drug trade:\(^ {128}\) in 2018, cocaine trafficking in West Africa was estimated to be worth 3 billion USD annually.\(^ {129}\)

Much of this cocaine is shipped from Brazil,\(^ {130}\) and enters the region via the Bight of Benin, and the so-called Northern Hub, centred on Sierra Leone, Guinea and particularly Guinea-Bissau, with this


\(^{121}\) Ibid.

\(^{122}\) Ibid.

\(^{123}\) Ibid.

\(^{124}\) Ibid.

\(^{125}\) Ibid.


\(^{129}\) Ibid.

Northern Hub appearing more prominent in recent years.\textsuperscript{131} Guinea-Bissau plays a prominent role in the maritime trafficking of cocaine, and it remains a focal point. In 2019, 1.8 tonnes of cocaine were seized after it was moved by sea into the country.\textsuperscript{132} But the maritime trafficking of cocaine is not limited to these most well-known cases: sizable seizures have been made at ports and at sea across the region in recent years, as the table of selected seizures below indicates.

Table 3: Notable seizures of cocaine at ports and at sea between 2019 and 2021\textsuperscript{133}

<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banjul (Port)</td>
<td>2021</td>
<td>3 tonnes</td>
</tr>
<tr>
<td>Abidjan (offshore)</td>
<td>2020</td>
<td>411 kg</td>
</tr>
<tr>
<td>Praia (offshore)</td>
<td>2019</td>
<td>9.5 tonnes</td>
</tr>
<tr>
<td>Caio (Port)</td>
<td>2019</td>
<td>1.8 tonnes</td>
</tr>
<tr>
<td>Lomé (seized in Uruguay bound for Togo)</td>
<td>2019</td>
<td>6 tonnes</td>
</tr>
<tr>
<td>Dakar (Port)</td>
<td>2019</td>
<td>798 kg</td>
</tr>
</tbody>
</table>

As Covid-19 impacts alternative trafficking options such as air travel and the efficiency of the global system of shipping, authorities believe that traffickers are attempting to move larger quantities in single shipments to meet demand.\textsuperscript{134}

**Wildlife**

Maritime trafficking of wildlife remains a significant concern in the Gulf of Guinea. West and Central African states are a major source of the world’s illicitly trafficked wildlife products. Pangolin in a variety of forms, ivory, rhino horn, and rare timber are illegally harvested and transported via the maritime space, largely to markets in East and Southeast Asia.\textsuperscript{135}

A look at international seizures of illicit wildlife products by country of origin paints an alarming picture for the region. Nigeria (24.3%), the Democratic Republic of Congo (DRC) (12.1%), Cameroon (5%) and Ghana (3.4%) are all in the top five states globally as countries of origin for trafficked pangolin.\textsuperscript{136}


\textsuperscript{133} Authors’ analysis of data.


Nigeria (15.7%), the DRC (9.5%) and Republic of Congo (9.5%) are all in the top four origin countries for elephant ivory.  

Guinea-Bissau is the largest single known country of origin for rosewood, and it is reported to constitute more than one-fifth (21.1%) of global seizures. The Gulf of Guinea is clearly an epicentre for this global illicit trade.

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137 Authors’ analysis of data from UNODC. Data available at [https://dataunodc.un.org/content/wildlife](https://dataunodc.un.org/content/wildlife).
139 Authors’ analysis of data from UNODC. Data available at [https://dataunodc.un.org/content/wildlife](https://dataunodc.un.org/content/wildlife).
Much of the world’s wildlife trafficking appears to occur via maritime transportation, particularly for bulky non-perishable products like ivory, pangolin, and timber, which are the primary illicit wildlife products originating in the Gulf of Guinea. Like the dynamics of maritime cocaine smuggling in the region, it is believed that with the onset of Covid-19, wildlife traffickers have come to rely heavily on maritime trafficking as other forms of transportation were disrupted. There have been many trafficked wildlife shipments across the globe that clearly originated in the region and several regional ports have been identified as focal points for the disembarkation of such products. For example, Lagos, Douala, and Lomé have all been identified as major disembarkment points for pangolin and ivory. Shipments are often concealed in containers among licit cargo or simply falsely designated as other products on manifests.

In addition, recent seizures may be indicative of the volume of the illicit timber being exported via the maritime domain. In 2017, a shipment of 1,000 tonnes of rosewood was seized in Singapore on its way from Guinea-Bissau to Vietnam and in 2019, 300 containers from Gabon were seized in Hong Kong. As with all maritime trafficking activity, these seizures likely represent only a small portion of total volumes being trafficked. Unless demand were to decrease and/or more effective tracing and anti-corruption measures taken, this maritime trade in illicit timber is likely to continue.

The Future

As the demand for illicit products consumed in and originating from the Gulf of Guinea is unlikely to diminish at any point in the future, significant policy interventions are required to curtail the rate of illicit maritime trade in the region. Corruption at ports and within customs authorities must be addressed (for more on the link between trafficking and corruption see the Socioeconomic Impacts of Maritime Trafficking Section), too. So, there is a need for more modern port monitoring and cargo tracking systems and strong capabilities for identifying and interdicting suspicious activity associated with maritime trafficking.

But perhaps what is needed most is higher quality, comparable data. The illicit networks involved in maritime trafficking are highly adaptive and can switch tactics and locations rapidly to circumvent enforcement efforts. In order to be equally adaptable, policymakers and enforcement agencies need timely, high quality, and uniform data with which to identify and respond to emerging trends. This is no easy task given the clandestine nature of such activity, but efforts to increase the

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availability, reliability, and transparency of region-wide data on these issues would have significant impacts.

Moving forward, international and regional efforts to compile location, date, size, and estimated value data on interdictions at sea and seizures in port of wildlife products, drugs and arms in a way which is uniform and comprehensive would give policy makers the necessary data to identify and measure trends in these illicit maritime trades over time, identify geographic areas of greatest concern and tailor mitigation strategies appropriately. This could include increased participation in data collection efforts by international organisations like the UNODC, where data coverage in the region is extremely sparse temporally and geographically. These efforts could also be supplemented by the systematic collection of seizure information from media reports, though this would likely introduce new biases into the data. Even then, comprehensive seizure data would not fully capture the scope of these illicit trades at sea, but it would provide a much stronger foundation for the empirical analysis of these issues.
Illegal, Unreported and Unregulated (IUU) Fishing

The importance of mitigating IUU fishing activity in the Gulf of Guinea can hardly be overstated. Productive and sustainable fisheries are critical to food security in the region as fish and seafood makes up 26.2% of animal protein consumption in Central Africa and 34.1% in West Africa. In certain states, reliance on affordable protein from fish is even higher (Sierra Leone, Sao Tome and Principe, Guinea, the Gambia, and Equatorial Guinea all see similar figures over 60%). It is also a critical source of employment and livelihoods, with up to a quarter of jobs in West Africa linked to the fisheries sector. As such, the future health and productivity of regional fisheries is of critical importance, and unfortunately, current levels of IUU fishing threaten that future.

However, gaining a better understanding of what the future IUU fishing challenge will look like is difficult given limitations in publicly available data. Part of the data challenge is that IUU fishing is a complex and multifaceted phenomenon that cannot be easily captured through one form of measurement. Moreover, since IUU fishing is an inherently clandestine activity, the data that would be most useful in quantifying the issue, such as the number of vessels and catch quantity at any given point, are not directly observable. Therefore, this section will look at trends across a variety of metrics that track, or attempt to approximate, IUU fishing activity, to make informed observations about likely trends in the region.

Base Estimates

One means of approximating the scope and scale of IUU fishing activity in the Gulf of Guinea is to look at existing social science research that uses a variety of methods to estimate both the scale and the cost of IUU activity. Estimates of the scale of IUU fishing in the Gulf of Guinea range from one 2009 study which compared fishing effort to reported catch to estimate that 40% of the total catch in West Africa was the result of IUU activity, to another in 2017 that extrapolated selected national case studies in the region to estimate that the total regional IUU catch was equivalent to 65% of the total legal catch. The latter is more recent and both use different methodologies to arrive at different estimates, but both are methodologically rigorous and provide a reasonable frame of reference for thinking about the scope of the problem. Such studies have also attempted to estimate the total economic cost of IUU activity to the region, which range from USD 1.5 billion to USD 2.3

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billion.\textsuperscript{154} Perhaps the most comprehensive assessment can be made by using country by country estimates from a 2020 study which generates range of estimates based on different scenarios, but utilising the average estimate for all 19 states in the scope of this study results in an approximate total of USD 1.6 billion per year.\textsuperscript{155}

Table 4: Estimates of IUU Fishing Costs in USD

<table>
<thead>
<tr>
<th>Country</th>
<th>Lowest Estimate</th>
<th>Highest Estimate</th>
<th>Average estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>106.56</td>
<td>194.02</td>
<td>150.29</td>
</tr>
<tr>
<td>Benin</td>
<td>8.51</td>
<td>26.1</td>
<td>17.31</td>
</tr>
<tr>
<td>Cameroon</td>
<td>9.92</td>
<td>42.92</td>
<td>26.42</td>
</tr>
<tr>
<td>DRC</td>
<td>2.47</td>
<td>10.38</td>
<td>6.43</td>
</tr>
<tr>
<td>Congo</td>
<td>8.3</td>
<td>13.78</td>
<td>11.04</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>21.52</td>
<td>40.43</td>
<td>30.98</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>22.84</td>
<td>39.69</td>
<td>31.26</td>
</tr>
<tr>
<td>Gabon</td>
<td>27.01</td>
<td>58.34</td>
<td>41.74</td>
</tr>
<tr>
<td>Ghana</td>
<td>14.84</td>
<td>41.55</td>
<td>28.19</td>
</tr>
<tr>
<td>Nigeria</td>
<td>67.32</td>
<td>188.47</td>
<td>127.9</td>
</tr>
<tr>
<td>Sao Tome</td>
<td>2.24</td>
<td>4.06</td>
<td>3.15</td>
</tr>
<tr>
<td>Togo</td>
<td>21.85</td>
<td>36.07</td>
<td>28.96</td>
</tr>
<tr>
<td>Liberia</td>
<td>39.12</td>
<td>65.7</td>
<td>52.41</td>
</tr>
<tr>
<td>Cape Verde</td>
<td>2.9</td>
<td>5.04</td>
<td>3.97</td>
</tr>
<tr>
<td>Senegal</td>
<td>163.72</td>
<td>310.74</td>
<td>237.23</td>
</tr>
<tr>
<td>Gambia</td>
<td>33.6</td>
<td>61.76</td>
<td>47.68</td>
</tr>
<tr>
<td>Guinea</td>
<td>365.77</td>
<td>608.63</td>
<td>487.2</td>
</tr>
<tr>
<td>Guinea Bissau</td>
<td>185.3</td>
<td>302.69</td>
<td>243.99</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>21.25</td>
<td>48.03</td>
<td>34.64</td>
</tr>
<tr>
<td>Regional Total</td>
<td>1125.02</td>
<td>2098.39</td>
<td>1610.78</td>
</tr>
</tbody>
</table>

Indices

Another method to approximate the severity of the IUU fishing challenge is to code qualitative data on the issue in a uniform manner to assign risk at a state level. The Global Initiative on Transnational Organized Crime (GI-TOC) has attempted this through its IUU Fishing Index, which compiles data from multiple sources (data from 2013-2018) to estimate such levels of risk.\textsuperscript{156}


The average overall index score for Gulf of Guinea states is 2.41 on a scale of 1 (least vulnerable) to 5 (most vulnerable). The average global score is 2.29. Whilst it may then appear that the Gulf of Guinea is assessed at only slightly more risk of IUU fishing activity than average, in practical terms, scores in the index only range from 1.43 to 3.93 making the level of risk in the Gulf of Guinea above the global average considerably more concerning. The same tool may also shed an interesting light on the diversity of assessed IUU fishing risk within the region. While there are some positive outliers (Ghana at 1.98 and Cabo Verde at 2.06 are notable in this regard), 13 of the 19 states in the region fall above the global average risk.

Conversely, the Ocean Health Index (OHI) develops an aggregate measure of Artisanal Fishing Opportunities that analyses the availability and sustainability of near-shore fisheries resources for local artisanal fishers.¹⁵⁸

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¹⁵⁷ Authors’ analysis of data from Gi-TOC. Data available at https://globalinitiative.net/analysis/iuu-fishing-index/.

Here again we see the same trend where the Gulf of Guinea, on average, performs well below the global norm. While the average global score for this metric is 77 on a 0-100 scale, Gulf of Guinea states see an average of just 51. Gabon stands out as the only state in the region with a score above the global average at 72.

**Correlating Metrics**

Looking beyond these aggregated measures of IUU fishing, it is useful to look more closely at individual aspects of the issue of particular relevance to the Gulf of Guinea. One of the characteristics of IUU fishing activity in the region is the prevalence of large-scale foreign vessels fishing illegally in a country’s territorial waters or EEZ. There are several measures of this particular component of IUU fishing activity. One is the level of access of foreign fishing vessels in any given state’s EEZ. While not universally the case, such arrangements, particularly in the Gulf of Guinea, are weakly monitored, sometimes facilitated by corruption, and often indicative of IUU fishing activity. Scores for this indicator places all but two states (DRC and Togo) of the 17 states for which data was available in the Gulf of Guinea at the highest level of foreign fishing presence, meaning they are extremely vulnerable to IUU fishing activity by foreign vessels. DRC and Togo happen to have the smallest and

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third smallest EEZs in the region respectively, limiting the potential positive impacts of the restrictions they place on foreign fishing for the broader regional fishery.

Another metric for looking at the foreign fishing element of IUU fishing is to examine the share of a state’s total catch taken by foreign vessels. In the Gulf of Guinea, the average percentage of foreign catch is 43.2%, nearly double the global average of 23.1%.162 Again there are lower outliers that significantly skew the average, but in 9 of 19 states, foreign catch represents the majority of overall catch and in 13 of 19 states, it constitutes one-third of total catch or more. In Guinea-Bissau, foreign fishing accounts for an astounding 96.5% of the total catch.163

Taken together, such metrics of foreign versus local fishing activity in the region paint a clear picture in which larger foreign vessels capture a significant portion of the region’s fisheries resources, deriving immense economic benefit. This subsequently limits the opportunities available to local fishers in a manner that often violates fisheries laws and undoubtedly jeopardizes the future health and productivity of the region’s fisheries resources.

Another interesting metric is estimates of total fish catch to reported catch. While some of this unreported catch is taken by local artisanal fishers, a large portion can be attributed to IUU fishing activity by commercial vessels. The Sea Around Us project provides these estimates at a regional level. While this data is only available up to 2018 the growth of the unreported catch in the Gulf of Guinea in absolute terms is clear. Between 1950 and 2018, the estimated unreported catch in the region grew from 406,000 tonnes to just under 2.4 million tonnes.164 However, more recent term trends are slightly more hopeful. Over the last five years for which data is available (2014-2018), total estimated unreported catch increased from 2014 to 2015, plateaued from 2015 to 2017, and declined significantly in 2018.

Table 5: Estimated Unreported Catch in the Gulf of Guinea (2014-2018)

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unreported catch tonnage</td>
<td>2,434,590</td>
<td>2,570,710</td>
<td>2,546,780</td>
<td>2,551,400</td>
<td>2,396,350</td>
</tr>
<tr>
<td>Total catch tonnage</td>
<td>3,924,200</td>
<td>4,090,740</td>
<td>4,022,400</td>
<td>4,276,840</td>
<td>4,223,240</td>
</tr>
<tr>
<td>Unreported % of total catch</td>
<td>62.0%</td>
<td>62.8%</td>
<td>63.3%</td>
<td>59.7%</td>
<td>56.7%</td>
</tr>
</tbody>
</table>

The final potential correlating metric of IUU fishing activity on which better time series data does exist is the level of imports of seafood products into the region. Several fisheries experts interviewed noted that IUU fishing may correlate with fisheries imports as foreign fishing vessels often land or tranship their catch outside the region and re-export processed seafood products back to the region. The UN Food and Agriculture Organisation (FAO) collects detailed data on the fisheries trade. This data does not extend across the entire study period, but in the last five years of available data (2014-

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163 Ibid.
2018) fisheries imports into Gulf of Guinea countries saw a gradual but relatively consistent decline from a total of 2.5 million tonnes in 2014 to 2.15 million tonnes in 2018. This may indicate that the link between IUU fishing activity and imports is less concrete than expected or that it is a more recent phenomenon not captured within the temporal scope of the data available.

The Future

To date much of the analysis provided has looked at measures which do not directly observe IUU fishing activity but are understood to correlate closely with it. Taken together they reveal the picture of a region where IUU fishing is a challenge well above that seen in most other regions of the world and there is little indication that IUU fishing is likely to decline in the region without significant and comprehensive changes to the status quo.

Trends point towards increasing IUU fishing activity in the near future. Global population and protein consumption continue to rise. An increasing number of fisheries around the world are under threat (between 1990 and 2017 the percentage of fish stocks fished at sustainable levels dropped from 90% to 65.8%) making the Gulf of Guinea’s fisheries, with its limited monitoring and enforcement, even more appealing. States outside the region have maintained or increased subsidies to their fishing fleets which make long journeys to the fisheries of the Gulf of Guinea economically viable. And even significant improvement in maritime domain awareness and enforcement capacity would take time to yield results. The bottom line is IUU fishing needs to be addressed quickly as action taken today will take years to show impact.

However, in order to make the informed policy changes necessary to meet this challenge, as with illicit maritime trade, far more comprehensive data is necessary. IUU fishing, both globally and in the Gulf of Guinea has received increased policy and public attention in recent years and this has been accompanied by novel data collection projects on various aspects of the issue described above. However, the combination of the relatively recent increase in focus on the issue and the timeframes necessary for conducting such data intensive work means that these various metrics are often generated once, as a single snapshot of the situation rather than being generated consistently year on year, negating their ability to be used for the measurement of trends over time. As an inherently hidden activity, the exact extent of IUU fishing will always remain unknown, but by piecing together a variety of different correlating metrics, such those above, with growing temporal coverage we should be able to continually refine our understanding of this ever-shifting phenomenon.

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Assessment of the Cost of Piracy for the Shipping Industry

The international community has incurred substantial costs to combat piracy and armed robbery at sea in the Gulf of Guinea. The shipping industry particularly has shouldered a large proportion of these expenses, to both prevent and deter incidents against vessels in the region.

This section examines the costs borne by the international shipping community as a result of piracy and robbery incidents against vessels in the Gulf of Guinea. The cost assessment focuses on the direct spending by industry stakeholders to avoid and prevent such incidents against vessels transiting the region. These expenses include best estimates of the cost of piracy-related insurance, the cost of hazard pay to seafarers transiting the region, and the cost of ship protection measures such as those recommended in the “Best Management Practices to Deter Piracy and Enhance Maritime Security off the Coast of West Africa including the Gulf of Guinea”, also known as “BMP West Africa.”

One critical piece of information needed to calculate the direct spending by industry stakeholders to avoid and prevent incidents of armed robbery at sea transiting the Gulf of Guinea is the number of vessels operating in the region. The Gulf of Guinea offers a challenge in this sense because vessels active in the region often make several calls at various ports across the Gulf. There are an estimated 11,660 vessels in the region annually.

The calculations included in the following section represent conservative estimates to avoid overstating the cost of piracy and armed robbery at sea in the region. Further, no estimates were included for those costs for which no data could be found. These include expenses such as “re-routing,” a counter-piracy ship protection measure which was regularly used off the Horn of Africa at the peak of Somalia-based piracy in which vessels would avoid high risk areas. While indications are that some vessels may avoid certain ports in the Gulf of Guinea to bypass areas of highest risk (such as Nigerian waters) while opting for a safer route (e.g. Beninese or Togolese waters, particularly for ship-to-ship cargo transfer operations), the geography of the region means that vessels are not able to avoid some of these areas entirely. In addition, a variety of unrelated factors (e.g. corruption at port) may have an even greater influence on patterns of shipping activity in the region. As such, an accurate estimate is not possible and the study does not include an analysis of this phenomenon. Similarly, the study does not include an estimate for the cost of ransoms paid in the Gulf of Guinea. Information on whether ransoms were paid, the amounts or the individual/society paying them is

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168 The ship protection measures included in this response were inspired by those in BMP West Africa. BMP West Africa was collaboratively developed with shipping industry representatives and international and regional maritime security authorities. The guidance outlines tools including strong vigilance, razor wire, manoeuvring, increased speeds, private security, door hardening, closed circuit television, and usage of a citadel, or safe muster point. The authors relied heavily on industry expertise for the cost of security escort vessel services.

169 Ocean Beyond Piracy’s State of Maritime Piracy 2016 employed AIS data to come up with a vessel estimate of 11,000. We multiplied that number by the annual seaborne trade volumes estimated in the United Nations Conference on Trade and Development’s annual Review of Maritime Transport studies for 2017, 2018, and 2019, in which the global seaborne trade expansion rates were 2.6%, 2.8%, and 0.5%, respectively.

170 Interview #5.

notoriously scarce in this region. One reason why this may be the case is because the official policy of the Nigerian government is against the payment of ransoms which may discourage some stakeholders from disclosing details following the release of crewmembers.\textsuperscript{172} Other stakeholders, such as insurance companies and shipowners, may be reluctant to engage in very public discourse about ransom payments for fear of driving up ransom demands and delaying the release of hostages.\textsuperscript{173} The best available estimate for the value of ransoms paid comes from a 2021 report by the UNODC. The report estimates that based on the number of kidnappings for ransom events and the upward trend in the amount of ransom paid per incident, Niger Delta based piracy groups were likely to have received approximately USD 4 million USD in 2020.\textsuperscript{174}

The cost of piracy and armed robbery in the Gulf of Guinea in 2019 is estimated between USD 529 million and USD 880 million. This estimate includes the cost of insurance, the cost of additional labour and hazard pay, the cost of ship protection measures, and the cost of security escort vessels attributable to piracy and armed robbery at sea in the region of interest. However, several limitations were encountered in terms of data availability, resulting from a dearth of publicly available information shared by governments or naval forces and a mix of unclassified and unregulated local vessel traffic which follows different transit patterns than commercial shipping traffic. A large disparity also exists between the number of crew on local vessels as opposed to large commercial shipping vessels. This crew disparity factors into the costs for labour and hazard pay.

**Insurance**

To most accurately account for the global disruption caused by COVID-19, the report analyses the costs incurred by the shipping industry in 2019. It is important to highlight that, in 2020, the Joint War Committee (JWC) War Risk Area was expanded (see above). JWC War Risk areas are those regions of the world where shipowners are required to notify insurance underwriters of their voyages. The Joint War Committee is composed of insurance underwriting representatives who meet quarterly and occasionally update the Listed Areas. In the case of the Gulf of Guinea, the Joint War Committee indicated that its area was expanded south and east “in recognition of the extended range of attacks”\textsuperscript{175} as discussed in the trends section. However, for the reason mentioned above, the increased cost of insurance to shippers caused by the expansion has not been considered.\textsuperscript{176}

It is important to highlight that piracy incidents affecting smaller vessels are often unaccounted for. Operators of smaller fishing vessels may not report each case of piracy that they encounter, which,

\textsuperscript{176} Despite the 2020 increase of insurance premiums, those shipowners who widely adopted best management practice and engaged in risk mitigation measures such as transit risk assessments conducted by independent maritime security experts would continue to see preferable insurance terms.
in return, impacts the reliability of the data. With larger vessels, there is an insurable interest which the operating company will want to recover, whereas smaller vessels tend to be operated by local or coastal traders with no insurance.177

The following section includes a cost assessment in connection to Kidnap and Ransom insurance as well as War Risk Insurance.

**Kidnap and Ransom Insurance**

Differently from the Somali piracy cases, where pirates could seize a vessel and kidnap the entire crew and keep it until the ransom was paid, as mentioned above, in the Gulf of Guinea the more sustainable business model is to take the crew (or part of it) from the vessels and detain them onshore. However, it is reported that ransom payments in Gulf of Guinea tend to be around from half a million to USD 750 thousands, versus the much higher ransoms paid in the Gulf of Aden, whose value was reported to be from tens of thousands to millions of dollars.178

Kidnap and Ransom (K&R) insurance is often purchased by shipowners as additional protection against kidnappings, extortion, hijack and hostage crises. Such insurance would usually cover the costs of ransom, fees for independent negotiators, crew wages, interest on loans raised to pay ransom and fees and expenses of security guards to protect crew after an insured event.179

In this report, the estimate of the cost of K&R insurance in the region assumes that 35% of vessels transiting the region180 elect to purchase K&R insurance at the cost of USD 2400 per transit.181 The number of transits such vessels make annually varies considerably based on several variables including, among others, the type of vessel, the cargo it is carrying, and the origin of the vessel. In order to make a conservative estimate and based on interviews with shipping experts both in and on the region, assuming two transits annually per vessel, the amount of K&R insurance costs are estimated at USD 36.7 million.

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179 https://www.towergate.com/specialisms/kidnap-and-ransom-insurance?

180 Matthew Walje, *The State of Maritime Piracy 2015*, One Earth Future, June 2016: 37. OEF authors estimated 35% of vessels transiting the Gulf of Guinea region elect to purchase K&R insurance based upon interviews with representatives of the commercial shipping industry.

181 Interview #6.
**War Risk Insurance**

War Risk insurance is purchased to protect vessels against loss or malicious damage caused by a third party, where such loss and damage are not normally covered by Hull and Machinery policies, which provide coverage to an insured vessel or fleet for physical damage caused by “a peril of the sea or other covered perils while the vessel is in transit over water.”

The War Risk insurance generally has two components: War Risk Liability, which covers people and items inside the craft and is calculated based on the indemnity amount; and War Risk Hull, which covers the craft itself and is calculated based on the value of the craft. The premium varies based on the expected stability of the countries to which the vessel travels.

Using the Hellenic War Risks Financial Statements for 2019, the authors determined the total amount of additional premiums, of which 15% were judged to be vessels transiting the Gulf of Guinea region in order to estimate the War Risk Added Premium cost per transit. The number of transits such vessels make annually varies considerably based on several variables, including the type of vessel, the cargo it is carrying, and the origin of the vessel, among others. In order to maintain the conservative estimate employed in the estimate of K&R insurance costs, and based on interviews with shipping experts both in and on the region, the authors assumed two transits annually per vessel. Based on this the authors estimate the cost of War Risk insurance to be approximately $15 million in 2019.

**Labour Costs**

Additional labour costs related to incidents of piracy and armed robbery at sea against vessels are due to the cost of hazard pay given to crews transiting high risk areas. According to agreements signed between shipowners and the International Transport Workers’ Federation (ITF), workers on ships are paid a bonus equal to 100 per cent of their basic wage during a ship’s stay in high-risk areas such as the Gulf of Aden.

The labour cost estimate was developed based on the IBF List of Designated Risk Areas, as of October 2019. The IBF High Risk Area (HRA) for the Gulf of Guinea of October 2019 outlined the territorial waters, ports, and inland waterways of both Nigeria and Benin.

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According to this designation, crews manning vessels transiting this region are eligible to receive “bonus equal to basic wage, payable for the actual duration of stay/transit; doubled compensations for death and disability; right to refuse sailing, with repatriation at company’s cost (by submitting respective notice); increased security requirements.”

Though an imperfect estimate because of the discrepancies between higher and lower ranking members of the crew, a daily wage per crew based on the average rate of pay of USD 1,334.60 - 2,608.03 was used considering the average crew size in the region and the typical composition of seafarer ranks, with an average crew size in the region of 20 people for a merchant vessel and 12-15 for a fishing vessel. For this estimate, this report developed a lower bound and upper bound figure based on the composition of crew (every scenario included one ship’s master, one chief engineer, one chief mate, and between nine and 17 able seafarers) as well as lower bound and upper bound salaries for each position. Using FleetMon to assess port traffic in Nigeria and Benin, it was estimated 47,757 vessels called in Nigeria or Benin through the course of 2019. The average time spent transiting this high-risk area was five days. Depending on the crew’s daily wage, this translates to a range between USD 319 million and USD 623 million.

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190 Interview #6.
191 FleetMon is an open database for ships and ports around the globe. More information can be found at FleetMon.com.
Box 2: Crew Injuries

In 2019 the IMB reported a piracy incident involving the injuring of two crew in Nigeria. The extent of the injuries sustained and the salaries of those affected is unknown to protect the privacy of the victims in these incidents, making the injury pay calculation difficult to estimate. In the absence of more detailed information, the report calculates that the injured crew members were owed one month’s worth of wages. The study uses an average annual salary of USD 40,000 based on available salary data or USD 3,333 monthly assuming a majority of able seamen versus the number of officers which comprise a typical crew. Based on the two injuries reported, the estimated cost owed to injured seafarers is rounded up to USD 7,000.

It is important to note that, in November 2020, the IBF updated its list of designated risk areas in the Gulf of Guinea, adding an IBF Extended Risk Zone which extended from the Liberian border with Cote d’Ivoire to the Congolese border with Angola (see figure 14). Beginning in November 2020, crews transiting this extended risk zone were eligible to bonuses equal to their basic wage, payable on the day the vessel is attacked as well as doubled compensation for death or disability if such an incident occurred on the day the vessel was attacked.

Ship Protection Measures

The ship protection measures outlined in BMP West Africa as the “primary layer of defence” include the use of razor wire around the periphery of a vessel, good lookout and vigilance, manoeuvring, speed, and the use of privately contracted armed security personnel (PCASP). From interviews conducted with relevant experts it is estimated that 80% of vessels in the region employ ship protection measures.

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195 “Able seaman,” also known as an Able Bodied Seaman or AB, refers to a naval rating of personnel onboard a merchant vessel who has more than two years of experience, relative to officers, who have additional experience and more responsibility for the safety of passengers onboard a vessel. More information on “Able Seamen” can be found here: Shamseer Mambra, “Who is an Able Seaman on Ship?” Marine Insight, 3 September 2021, https://www.marineinsight.com/careers-2/who-is-an-able-seaman-on-ship/.
Many of these protections have a limited lifespan and wear out rapidly, namely razor wire and sandbags. Based on interviews with key experts, it is calculated that 15% of vessels in the region refit and replace these protection measures annually and the bulk of expenditure in this category can be attributed to refitting. The cost of razor wire is estimated at USD 4 per unit, with between 550 and 1,000 units needed per vessel; sandbags cost USD 1 per unit, with 550 units needed per vessel; and three warning signs are needed per vessel at the cost of USD 140 each. Using this data, this study estimates the cost of ship protection measures in 2019 for all 11,660 vessels in the region to be between USD 4 million and USD 7 million.

**Box 3: Vessel Citadels**

Several interviews indicated that the use of citadels in vessels has become “essential” to keep pirates from taking control of a vessel. A citadel is defined as a safe location the vessel’s crew can retreat to if other defence layers fail to stop intruders boarding the vessel to take control of it or take the crew hostage. The size of a citadel varies considerably from vessel to vessel, but it is large enough to accommodate and keep safe the entire crew for three to five days.

For a newly built vessel, a citadel is often factored into the construction plans at essentially no additional cost. For vessels built without a citadel, adding one is both costly and time- and labour-intensive, as it requires adding ballistic protection requiring welding work, in addition to...

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198 [https://on-shore.mschoa.org/media/1202/section-5-ship-protection-measures.pdf](https://on-shore.mschoa.org/media/1202/section-5-ship-protection-measures.pdf)
200 Interview #7.
202 Ibid.
203 Interview #8.
204 Ibid.
an “external antenna” fitting in order to properly equip the space with satellite phone communication.\textsuperscript{205}

\textit{Internal view of a citadel}\textsuperscript{206}

One interviewee from the shipping industry detailed that some citadels are now equipped with engine control and navigational capabilities, CCTV, satcom, and crew provisions for up to a week. The alternative to adding a fully constructed citadel is to reinforce doors and interior walls with steel plates as ballistic protection.\textsuperscript{207} This option is considerably more cost effective, but costs will still vary depending on the type of ship and what the vessel already has in place in terms of ship protection measures. Any attempt to make a quantified estimate of the costs associated with these vessel security upgrades would most likely be unreliable as costs could vary widely based on the types of upgrades and differing costs associated with building upgrades into new vessels and retrofitting existing vessels.

\section{Security Escort Vessel Services}

Because the use of armed guards onboard vessels transiting Nigerian waters has been prohibited for several years, a system of maritime security escort vessels was established through several Memoranda of Understanding (MOUs) between the Nigerian Navy and private security companies.\textsuperscript{208} From interviews with several experts, it was calculated that the daily rate for a security escort vessel is between USD 10,000 and USD 12,000 and the daily cost for an embarked team is estimated between USD 4,000 and USD 6,000.\textsuperscript{209} At a daily rate between USD 14,000 and USD 18,000, and assuming five days to transit the HRA,\textsuperscript{210} the study estimates a daily transit rate between

\textsuperscript{205} Ibid.
\textsuperscript{207} Interview #7
\textsuperscript{209} Interview #5 #7 #8
USD 70,000 and USD 90,000. It is calculated that in 2019, security escort vessels were hired for approximately 2,200 transits, amounting to between USD 154 million and USD 198 million spent on security escorts in Nigerian waters.

Though not factored into the overall figure for security escorts, it is worth noting that the cost to private security companies to secure MOUs with the Nigerian Navy are estimated between USD 100,000 and USD 500,000 per MOU and that approximately 30 companies possess MOUs. One dominant perspective from the shipping industry operating in the region is that the onus for providing security to vessels should fall to regional states: “Continued reliance on locally sourced commercial protection services that are under the control of the coastal states undermines incentives to carry out effective law enforcement and therefore is not a model that will genuinely repress the actions of the pirates in the region.”

**Summation of the costs**

In summary, the report estimates the costs to the international shipping community attributable to piracy and robbery against vessels in the Gulf of Guinea in 2019 to be of an average of USD 704.5 million. The table below demonstrates the direct costs incurred by the commercial shipping industry in 2019. The lower bound estimate represents the most conservative estimate, using smaller estimates in US dollars and vessel traffic and transits, while the upper bound figure represents in US dollars the individual expenses and higher number of vessel traffic and transits.

*Table 6: Estimated Costs Attributable to Piracy and Robbery in the GoG, 2019*

<table>
<thead>
<tr>
<th>EXPENSE</th>
<th>AVERAGE</th>
<th>LOWER BOUND</th>
<th>UPPER BOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>USD 52 million</td>
<td>USD 52 million</td>
<td>USD 52 million</td>
</tr>
<tr>
<td>Labour costs</td>
<td>USD 471 million</td>
<td>USD 319 million</td>
<td>USD 623 million</td>
</tr>
<tr>
<td>Ship protection measures</td>
<td>USD 5.5 million</td>
<td>USD 4 million</td>
<td>USD 7 million</td>
</tr>
<tr>
<td>Security escort vessels</td>
<td>USD 176 million</td>
<td>USD 154 million</td>
<td>USD 198 million</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>USD 704.5 million</strong></td>
<td><strong>USD 529 million</strong></td>
<td><strong>USD 880 million</strong></td>
</tr>
</tbody>
</table>

However, it is important to stress that this estimate of expenditures is just one component of the overall costs of piracy and robbery against vessels in the Gulf of Guinea. This study does not factor in other important factors such as the costs to countries in the region such as the social and economic costs to local communities, and the investments made by the international community to help address the problem. Coastal communities and landlocked neighbouring states alike also suffer the impacts of piracy. When international shipping companies opt for out of the way ports to avoid hotspots, local fisheries are impacted, and cycles of economic insecurity in coastal communities are reinforced. Regional states must expend resources and policy attention on addressing piracy and

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211 Both of the aforementioned figures originated in a presentation given at a meeting under Chatham House rule.

212 BIMCO, “The Gulf of Guinea Declaration on Suppression of Piracy,” [https://www.bimco.org/](https://www.bimco.org/) At the time of writing, over 430 flag state administrations, ship owners, charterers, and shipping associations have signed onto the Gulf of Guinea Declaration.
armed robbery in the Gulf of Guinea. The international community, through the efforts of multilateral organisations, partner nations and civil society organisations, have invested millions in securing the Gulf of Guinea’s maritime domain. Therefore, it is important to note that while the costs to the international shipping industry are important, and they motivate much of the attention paid to piracy and armed robbery, they are only one piece of a much larger puzzle. If piracy and armed robbery in the Gulf of Guinea is to be addressed in a holistic manner, interested actors must consider, and develop strategies that address all these important aspects.
Socioeconomic Impacts of Maritime Trafficking in the Gulf of Guinea

Maritime trafficking in drugs, arms, and wildlife products, has disparate and wide-ranging impacts on the socioeconomic situation of communities across the Gulf of Guinea, including in the areas of health, corruption, and conflict. This chapter will provide a broad overview of maritime trafficking’s impacts across these three socioeconomic areas, and outline how they impact the safety, prosperity, and general wellbeing of communities in the region. Though other areas of socioeconomic impact exist, this research identified these as the most significant ones in the region. It is also important to note that each of the socioeconomic impacts discussed has second order impacts on the economic development of the region. For example, maritime trafficking facilitates corruption and corruption disincentives foreign investment, undermining regional economic development. These impacts are extremely important to consider but they are one step removed in the chain of interlinked impacts.

The chapter is organised around the three categories of socioeconomic impacts, as opposed to the trade in the three illicit products of interest. The socioeconomic impacts of each form of trafficking vary significantly; only the most relevant categories of maritime trafficking will be addressed. For example, there will be no discussion of the health impacts of maritime arms trafficking in the region as there is insufficient evidence to suggest a significant link between these phenomena. The table below serves as a quick reference as to what forms of maritime trafficking is referenced in each section of the chapter.213

<table>
<thead>
<tr>
<th></th>
<th>Drugs</th>
<th>Arms</th>
<th>Wildlife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corruption</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Health</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Corruption

One of the most pervasive impacts of maritime trafficking, and trafficking of illicit goods more broadly, in the Gulf of Guinea is corruption. Corruption is both an enabler and an outcome of trafficking in the region. By this it is meant that corruption is a cause and an effect of maritime trafficking in the region; corruption both makes maritime trafficking in the region easier to execute, and maritime trafficking provides able opportunities for corruption.

213 This is not to suggest that no possible link between a form of maritime trafficking and a category of socioeconomic impact exists, merely that the research did not uncover sufficient evidence to warrant detailed examination. It should also be noted that the best available evidence used to quantify socioeconomic impacts of maritime trafficking are often broad indicators. As such, it often is not possible to parse out the impacts of trafficking, much less maritime specific trafficking, on, for example corruption, which has a wide variety of contributing factors. Where possible, regional cases specific to maritime trafficking will be applied to clarify the relationship between the various forms of trafficking and socioeconomic impact, but in many cases available evidence will not allow for a clear and parsimonious causal relationship to be proven between maritime trafficking and these broader measures of socioeconomic wellbeing.
The chart below uses the rankings of Gulf of Guinea states in the Corruption Perceptions Index (CPI)\(^{214}\) to provide a baseline of perceived levels of corruption in regional states and their change over the last decade.

*Figure 15: Gulf of Guinea states rank in Corruption Perceptions Index 2010-2020\(^{215}\)*

The CPI is produced by Transparency International and uses a variety of data to measure perceived corruption in the public sector across 180 states globally.\(^{216}\) At an aggregate level, corruption in the region appears to be high but improving. In 2010 the average rank of Gulf of Guinea states in the CPI was 130.4, but that average moved up nearly ten places to 121.1 by 2020.\(^{217}\) This is a significant improvement over the course of a decade that outpaced the broader Sub-Saharan Africa region.

However, when examining the breakdown of individual states within the Gulf of Guinea, this average progress is skewed to some degree by several very positive outliers, which saw significant increases in their rankings over the last decade. In particular, Cote d’Ivoire, Senegal and Sao Tome and Principe saw their rank in the index jump up an astounding 50, 49, and 47 places respectively. Across the larger region we see more mixed results, with nine states dropping in the rankings, while ten improved. The most severe negative outlier in the region was Liberia, which dropped 46 places in the rankings over the last decade.\(^{218}\)


\(^{216}\) Ibid.

\(^{217}\) Ibid.

\(^{218}\) Ibid.
Drugs

Of the forms of maritime trafficking explored in this research, drugs have perhaps the most significant impact on corruption within the region. The relationship between drug trafficking and corruption appears to be reciprocal, whereby existing corruption facilitates the workings of drug trafficking networks, where the influx of illicit funds from trafficking to the region further entrenches systemic corruption and accompanying systems of patronage. As in many states around the globe, drug trafficking in the Gulf of Guinea’s most impacted states involves not only individuals directly involved in the trade, but larger networks of corruption and patronage which help to maintain the power of political elites (see the below Case Study on Guinea Bissau). Over time, the normalisation of both high and low-level corruption catalyses a self-perpetuating cycle that fundamentally shifts the character of political and economic life.219 This has much broader implications for the overall functioning of the state and the potential undermining of governance across a variety of issues.

Box 4: Corruption and maritime drug trafficking in Guinea Bissau

The most emblematic regional example of the links between corruption and maritime drug trafficking is the case of Guinea-Bissau. For years Guinea-Bissau’s geographic location and weak governance facilitated its development into a significant transit point in the region for the maritime trafficking of cocaine between production centres in South America and markets in Europe. The deep entrenchment of cocaine trafficking networks in the country contributed to endemic levels of corruption, political instability, and arguably, levels of state capture which led both the UN and the U.S. to label the country a “narco-state” more than a decade ago.220 Drug trafficking in Guinea-Bissau has been a problem since at least the early 2000’s and by the late 2000’s drug traffickers moving cocaine from South America were a common presence in the country.221

Guinea-Bissau’s role as a cocaine trafficking hub has been enabled by official corruption at high levels. For example, the military has been directly and deeply involved in facilitating cocaine trafficking from an early stage.222 In 2007, two local military personnel who were stopped in a vehicle carrying 635 kg of cocaine, but after intervention by the military they were released and never charged.223 High-level military officials did not simply look the other way, many were very actively involved in cocaine trafficking. The most prominent example is former navy chief Bubo Na

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Tchuto, who has been described as a “drug kingpin” by the U.S. In 2013 Tchuto was arrested off the coast of Guinea-Bissau following a Drug Enforcement Administration (DEA) sting operation in which he agreed to provide undercover agents – posing as members of the Revolutionary Armed Forces of Colombia (FARC) – with weapons in exchange for cocaine and was subsequently convicted of drug trafficking.

Corruption surrounding cocaine trafficking in the country is not merely a matter of criminal enrichment for the powerful few, it has also had incredible detrimental impacts on the state of governance and political institutions in Guinea-Bissau. Most dramatically, a military coup in 2012 was reportedly, at least partially, motivated by a desire to maintain control of the drug trade and its profits. UN officials said at the time that “the coup was perpetrated by people totally embedded in the drugs business,” and reports in its aftermath indicated a significant uptick in trafficking activity. Corruption has also seeped into the day-to-day functioning of the state. For example, money from drug trafficking has for years been used to fund political campaigns, patronage networks, and associated vote buying. Further, it appears that many in the country’s judiciary operate in an environment where normal court processes are undermined by intimidation by elements of the military seeking to protect their financial interests in the drug trade. Cocaine trafficking in Guinea-Bissau remains a significant challenge with large-scale seizures occurring as recently as 2020.

Collectively, these factors have severely undermined the effective functioning of the state in a nation with severe socioeconomic challenges. Nearly 70% of the country’s population lives below the international poverty line of 1.90 USD a day, and in the latest UN Human Development Index the country ranks 175th out of 189 states. In a state where the functioning of government is so severely undermined and kleptocracy so deeply entrenched because of drug trafficking, the already daunting challenge of providing the kind of public services and safety nets that would help overcome the nation’s development deficit is made all the more difficult.

229 Ibid.
231 Ibid.
While the case of Guinea-Bissau may be the most dramatic example of the ways in which maritime drug trafficking facilitates corruption and undermines socioeconomic wellbeing in the Gulf of Guinea, it is, unfortunately, not the only state in the region struggling with these issues. A similar dynamic has reportedly played out in neighbouring Guinea, in which corruption related to drug trafficking became endemic among a cadre of high-ranking officers in the military and bureaucrats who became essentially “untouchable.” From their positions of power, they were able to undermine any government attempt to combat the drug trade.

Wildlife

While drugs may provide the most dramatic examples of maritime trafficking leading to extreme corruption in the Gulf of Guinea, it is not the only illicit maritime trade to do so. Maritime wildlife trafficking also provides ample opportunities for corruption in the region. Like drugs, corruption, both at high levels of government and among lower-level port authorities, plays a critical role in facilitating maritime wildlife trafficking. And the relationship also works in the opposite direction. The amount of money which can be made from wildlife trafficking and the reliance on its export form the region via maritime routes creates an incentive and avenue for corruption. This is not to say that maritime wildlife is the cause or one of the more significant sources of corruption in the region, it does provide an additional avenue for corruption in the region.

One of the illicit wildlife products which appears most strongly associated with corruption in the Gulf of Guinea is rare rosewood timber. Rosewood exports from West Africa are significant. In 2017 Asian states imported roughly 1.4 million cubic metres of rosewood from West Africa. Significant countries of origin include Nigeria (54.8%), Ghana (16.8%), Gambia (15.2%) and Sierra Leone (5%), with much of these exports contravening national export bans. In recent years, several states in the region have unearthed illicit networks involved in the illegal maritime trafficking of rosewood to markets in East Asia. In 2019 authorities in Gabon seized 392 containers of illegal rosewood worth an estimated 252 million USD, from two Chinese owned firms operating at Owendo Port in Libreville. The timber trafficking in this case was linked to high level government officials and the president of Gabon subsequently dismissed both his vice president and forestry minister due to their connections to the case. It is estimated that in Ghana roughly six million rosewood trees have been illegally harvested and trafficked to China since 2012, despite intermittent bans on the harvest of and trade in the product. This trafficking has been facilitated by corruption among forestry officials and

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Forged documentation by shipping agents to be trafficked via the Port of Tema. Finally, between 2010 and 2016, an estimated 325.5 million USD worth of illegal timber was illegally shipped out of Gambia via containerised shipping cargo. This timber was mainly harvested in Senegal’s southern Casamance region as Gambia is largely deforested and the trafficking was controlled by Gambia’s ex-dictator Yahya Jammeh and high-level officials in his regime. Senegal and Gambia are pursuing an investigation but many of the high-level officials involved have since fled the country.

The former two examples appear to be linked to both low-level and high-level corruption for personal gain, but the wider governance impacts should not be overlooked. High profile instances of corruption can undermine public trust in governments. The Gambia example demonstrates how maritime wildlife trafficking provides opportunities for high-level corruption that assists in the maintenance of an autocratic regime and the perpetuation of conflict in the region.

One final case is that of high-level corruption in Nigeria’s rosewood export industry. In 2017 1.4 million rosewood logs (worth an estimated 300 million USD) exported from Nigeria were held by Chinese customs because they lacked CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) permits. The specific species of rosewood had been listed under the CITES convention the previous year. Evidence suggests the Chinese and Nigerian business interests paid millions of dollars in bribes which resulted in Nigerian officials issuing retrospective CITES permits for the cargo, allowing their release into the Chinese market. The scandal drew attention due to the role played by high level Nigerian officials such as the then Minister of Environment, but it also highlights a sometimes-overlooked maritime element of this high-level corruption. A key facilitating factor in this illicit supply chain is the participation of port officials in knowingly allowing the export of the timber without valid or, in some cases any necessary permits.

In this instance corruption not only facilitated maritime wildlife trafficking, but the maritime trafficking was also the economic engine which drove a system of corruption in port sectors and government more broadly.

In addition to rosewood, ivory and pangolin trafficking in the Gulf of Guinea also appear to be facilitated by, and serve as a catalyst for, complex systems of corruption in the region. Research from the Environmental Investigation Agency (EIA) indicates that the maritime trafficking of ivory, pangolins and, to a lesser degree timber, is facilitated by corruption in law enforcement and port authorities. This research highlights the role of corruption in Nigeria, which has become the epicentre of ivory and pangolin scale trafficking to Asia.
epicentre of ivory and pangolin trafficking in the region. Illicit pangolin and ivory products are consolidated in Nigeria from suppliers across west and central Africa and shipped to markets, largely in China and Vietnam. The report highlights the role of corruption among port and customs officials in Port Harcourt and Port Apapa in Lagos who accept bribes to allow illicit wildlife shipments to bypass screening and security measures, and occasionally change shipping records and cargo manifests to avoid detection.\textsuperscript{246} The same report describes a similar modality of port corruption facilitating the maritime export of wildlife products in the DRC port of Matadi.\textsuperscript{247} It is highly likely that other states in the region, given their similar facilitating factors, host networks of corruption which allow for the maritime trafficking of ivory, pangolins and other illicit wildlife products.

Health

Health is a critical component of socioeconomic wellbeing around the globe. Without adequate health services and service provision, communities and entire nations are hampered in achieving their full potential. This section will largely focus on the public health impacts of drug trafficking broadly. Drug policy experts have identified that areas where drug trafficking occurs, even primarily for transhipment purposes, often experience a “spill-over effect” whereby local consumption of the drugs trafficked increases.\textsuperscript{248} This also appears to be the case in the Gulf of Guinea, as some of the drugs that have witnessed the most rapid increase in use and are likely to have significant negative public health impacts, such as opioids and cocaine, are also those most closely associated with maritime trafficking in the region (see \textit{Illicit Trade Trends} section). As such it is reasonable to assume that the prevalence of maritime trafficking of such drugs in the region is contributing to the negative socioeconomic impacts of public health. However as reliable data is not available to quantify the separate impacts on maritime trafficked versus land trafficked and domestically produced drugs, it is necessary to examine the specific impacts on public health at an aggregate level as opposed to those exclusively driven by maritime trafficking.

One broad indication of the health impacts of drug trafficking in the Gulf of Guinea is general rates of drug use. In short, how many people in the region are likely to be impacted by the health effects of drugs now and into the future? Generally, drug use in the region is on the rise. West Africa is estimated to see an increase in the number of drug users from 5.7 million in 2018 to 13 million by 2050.\textsuperscript{249}

With this increase in drug usage is likely to come a proportional increase in drug use disorders. However, by global standards, Gulf of Guinea states see relatively low and quite stable, if slightly increasing, rates of drug use disorders. On average, the Gulf of Guinea states registered drug use
disorders in 0.522% of the population. This is slightly below the total for Sub-Saharan Africa as a whole (0.535%) and well below the global rate (0.942%). However, states in the region have seen a slight increase in drug use disorders between 2010 and 2017, the last year for which data is available. On average Gulf of Guinea states saw a 0.017% increase over the period.\textsuperscript{250}

In terms of the most severe drug-related health impacts, it may also be useful to examine trends in drug related deaths in the Gulf of Guinea. Whereas drug use disorder rates are relatively stable, there is a more marked increase in drug related deaths in the region. The aggregate number of deaths is concerning. Between 2010 and 2017 more than 700,00 people died from direct and indirect impacts of drug abuse in the Gulf of Guinea.

\textit{Figure 16: Percentage change in total drug related deaths 2010-2017}\textsuperscript{251}

Looking at the level of individual states, of the 19 Gulf of Guinea states, only four saw a decline in such deaths, with the remaining 15 seeing increases between 9% and 45%.

But not only does drug trafficking in the Gulf of Guinea have health impacts directly on individuals using them: it may also have an impact on the broader system of healthcare in the region. As described above, healthcare systems in almost every state in the region operate with very limited resources. Any significant further stress on the already strained public health infrastructure in the region due to an increase in drug related demands on the system could potentially hamper its ability to deal with a wide variety of other healthcare needs. While this may appear hyperbole considering

\textsuperscript{251} Authors’ analysis of data from GI-TOC. Data available at \url{https://ourworldindata.org/illicit-drug-use?country=#prevalence-of-drug-use-disorders}.  

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the recent and projected trends in drug use, disorders, and deaths, it is not unreasonable to conclude that drug related health issues will become an increasingly significant burden on an already fragile system with potential impacts on the socioeconomic wellbeing of the regional population.

Conflict

Conflict has the potential to severely undermine the socioeconomic wellbeing of the Gulf of Guinea in years to come. All three forms of illicit maritime trafficking studied in this report have the capacity to catalyse and prolong conflict in the region in different ways and to varying degrees. But before diving into the specific impacts of each individual form of trafficking on conflict in the Gulf of Guinea, there is a well-established body of academic literature on the intersection of crime, trafficking, and conflict that deserves mention to provide context on the larger issue.

One of the clearest findings from the body of academic research on the “crime-conflict nexus” is that intrastate conflicts (the overwhelmingly predominant form of conflict in the Gulf of Guinea) in which a nonstate actor has access to profits from so called “lootable” goods such as drugs, minerals, and high valued wildlife products, last longer that similar conflicts in which no such source of funding exists. In addition, such conflicts are shown to exhibit higher levels of conflict intensity and violence against civilians. These findings are particularly relevant to the question of how maritime trafficking in the region may impact conflict in the region for two reasons. Firstly, maritime trafficking has the potential to serve as the vehicle by which armed groups gain access to and/or benefit from the sale of such goods to fund their violent campaigns. Secondly, should maritime trafficking be successfully utilised by armed groups in the region for these purposes, evidence strongly suggests that these conflicts will be longer in duration and increase the intensity of violence involved, thereby deepening their long-term negative socioeconomic impacts on the region.

Drugs

One such “lootable” good with the potential to drive conflict is illegal drugs. Drugs are, to varying degrees, relatively simple to produce or harvest, easy to transport, and high in value. As such they have the potential to extend the duration and increase the intensity of conflict in the region by financing the activities of violent nonstate actors. Cocaine and to a lesser extent tramadol would appear to be the drugs with the most significant potential to fuel conflict in this way as they appear to be the most prevalent (see Illicit Trade Trends section). However, at this point there is little direct

252 In recent decades interstate war is quite rare. The Gulf of Guinea is no exception. However, the region does see a significant amount of intrastate conflict. According to the Armed Conflict Location & Event Data Project, in 2020, three states in the region stand out as sites of significant intrastate conflict. In 2020, Nigeria experienced 7,537 conflict related fatalities (omitting deaths from protests and riots), the DRC experienced 5,852, and Cameroon experienced 1,723. (https://acleddata.com/dashboard/#/dashboard) No other state in the region experienced more than 100 such fatalities in 2020, but many states in the region have a recent history of intrastate conflict and/or conditions which increase the risk of such conflict.


evidence that maritime drug trafficking is fuelling conflict in the region, particularly when restricting the scope of the analysis to the littoral states of the Gulf of Guinea as opposed to the inland states of the Sahel. The links between drug trafficking and conflict in the Gulf of Guinea appear somewhat speculative and backed by limited evidence. For example, there have long been reports that Boko Haram funds its operations in part by involvement in the trafficking of cocaine and heroin. However, there is little to no direct evidence of such activity available in the public domain and if such participation in these trafficking activities does exist, it is likely indirect and on a limited basis. The actors generally involved in maritime cocaine trafficking in the Gulf of Guinea appear to be local and international criminal networks and corrupt state actors rather than nonstate armed groups. Similarly, with tramadol, there is very little evidence of participation by violent nonstate actors in its maritime trafficking. While the drug is popular with fighters in groups such as Boko Haram, their interactions with the drug are more likely to be as consumers rather than involvement in its trafficking to facilitate their operations. Therefore, the risk of armed groups in the Gulf of Guinea tapping into the region’s maritime drug trafficking activity to fund their violent campaigns is assessed as low due to little evidence that groups in the region have done so to this point.

Wildlife

Maritime wildlife trafficking in the Gulf of Guinea also has the potential to facilitate conflict in the region in much the same way as drugs. Rare timber, ivory, and pangolin products are high value goods which armed groups in the region have the potential to exploit to fund their operations. Global estimates of the value of the illicit wildlife trade range from 7-23 billion USD annually and given the centrality of the Gulf of Guinea as a source of many of these products (see Illicit Trade Trends section), it represents a substantial potential source of revenue for illicit actors. However, as with drugs, the actors involved in maritime trafficking of wildlife within the region do not appear, in most cases, to include nonstate armed groups. That said there are certainly a few known cases of armed group participation in the trade. One such example would be the involvement of a variety of nonstate armed groups in the illegal elephant ivory trade in the DRC. However, given the fact that the eastern DRC – where nonstate armed groups are located – is largely dependent on ports along Africa’s eastern seaboard, such as Mombasa, for maritime trade, if ivory procured by these groups is trafficked via the maritime domain, it is likely that it bypasses the Gulf of Guinea.

Box 5: The Movement of Democratic Forces of Casamance (MDFC) and illegal wildlife trade

The only case identified in which an armed group in the Gulf of Guinea has used the maritime trafficking of wildlife products to fund its operations is the MDFC in southern Senegal. Between 2010 and 2014 the group is estimated to have earned 19.5 million USD through the illegal trafficking of rosewood through Gambian ports with the help of Gambian dictator Yahya Jammeh. The MDFC created its own permit system which allows traffickers to purchase and transport rosewood, which now appears to be the group’s primary source of financing.

While there appears to be little direct evidence of armed groups using maritime wildlife trafficking extensively to fund their operations, the risk of groups turning to this strategy remains high.

Arms

Maritime arms trafficking in the Gulf of Guinea possesses largely unrealised potential to facilitate armed conflict in the region. However, as has been described in greater detail previously in the report, arms trafficking in the Gulf of Guinea appears to be a largely land based phenomenon. Of the limited known cases of maritime arms trafficking in the region only one case stands out as linked to armed conflict. As has been described in the Trends section of the report, several of the known maritime arms trafficking incidents in the region involve pump action shotguns being illegally shipped into Nigeria. These same weapons have been recovered after incidents of communal violence between herders and pastoralist in Nigeria’s Middle Belt and linked to these shipments, providing the only direct link between maritime arms trafficking and conflict in the region. Given the availability of small arms across the region from more extensive onshore trafficking, it appears unsubstantiated to assume that stopping the limited amount of maritime arms trafficking into the region would have a significant impact in mitigating this and other conflicts within the region.


The Socioeconomic Impacts of IUU Fishing in the Gulf of Guinea

IUU fishing activity in the Gulf of Guinea has a variety of socioeconomic impacts on communities across the region. The ramifications of IUU fishing are far-reaching, affecting a wide range of themes including ecological damage, human security, economics, and governance. As such, it is an issue that exacerbates some of the most pressing socioeconomic concerns in the region.

Environmental and Fisheries Health Impacts

IUU fishing negatively impacts fisheries health and the broader marine environment in a variety of ways. Some of the most detrimental impacts include overfishing, targeting of protected species, violation of protected areas, high levels of bycatch, destructive fishing techniques, and the loss of data on harvest, which can hamper future efforts at science-based fisheries management. Beyond its primary effects on regional ecosystems and fisheries, IUU fishing causes a large number of second order impacts on the welfare of regional communities including loss of livelihoods for fishers, undermining food security, potential forced fisheries labour, and the facilitation of corruption and loss of tax revenue.

Metrics developed to measure fisheries health evidence the grave threat to marine ecosystems in the region. The most prominent indicators are classification systems that assess the long-term health of different species within a given fishery. Looking at the last 25 years for which this data is available at a regional level (the last year of data being 2018), an extremely worrying trend is clear, as a growing proportion of regional fisheries stocks (by species) are classified as either Collapsed or Over-Exploited (the other categories being Exploited, Developing, and Rebuilding). Visible trends over the last two and half decades are startling. Between 1993 and 2018, the percentage of fisheries stocks categorised as Collapsed grew from 7.6% to 19.6%, Over-exploited stocks grew from 10.3% to 23.4%, and the combined percentage of stocks considered under threat grew from 17.9% to 43%.

Over the last five years for which data is available (2013-2018) Collapsed stocks grew from 13.2% to 19.6% and Over-exploited stocks declined from 29% to 23.4%. As a result, the stocks falling into these two categories over this five-year period rose slightly from 42.2% to 43%. This data highlights two problematic trends. The first is that while the percentage of stocks in these two threatened categories appears to be growing more slowly in recent years, the percentage of stocks in these categories is approaching nearly half of what it used to be. In addition, while the rate of increase in the percentage of stock in these two categories combined has slowed in the most recent period, the...

264 “Stock status plots assess the status of stocks by catch biomass (3-year running average values; top) and by number of stocks (bottom) since 1950. Stock-status categories are defined using the following criteria (all referring to the maximum catch [peak catch] or post-peak minimum in each series): Developing (catches ≤ 50% of peak and year is pre-peak, or year of peak is final year of the time series); Exploited (catches ≥ 50% of peak catches); Over-exploited (catches between 50% and 10% of peak and year is post-peak); Collapsed (catches < 10% of peak and year is post-peak); and Rebuilding (catches between 10% and 50% of peak and year is after post-peak minimum).” (http://www.seaaroundus.org/data/#/lme/28/stock-status).


266 Ibid.
percentage of Collapsed stocks (the most problematic category) has increased significantly (6.4%) over the same period.

Table 7: Percentage of fish shocks in the Gulf of Guinea classified as over-exploited and collapsed 1993-2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Over exploited</th>
<th>Collapsed</th>
<th>Combined</th>
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<td>10.3%</td>
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<td>1998</td>
<td>18.4%</td>
<td>6.3%</td>
<td>24.7%</td>
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<tr>
<td>2003</td>
<td>20.2%</td>
<td>11%</td>
<td>31.2%</td>
</tr>
<tr>
<td>2008</td>
<td>19.3%</td>
<td>11.2%</td>
<td>30.5%</td>
</tr>
<tr>
<td>2013</td>
<td>29%</td>
<td>13.2%</td>
<td>42.2%</td>
</tr>
<tr>
<td>2018</td>
<td>23.4%</td>
<td>19.6%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Stock status data of this kind is also available at a national level for 13 of the 19 states in the Gulf of Guinea. (see the graph below) This data captures the period 2008-2018 and presents equally troubling trends. Nine of the 13 states saw increases in the percentage of fisheries that were classified as Over-Exploited or Collapsed. Six countries saw increases of more than 10% of fisheries falling into these categories, with the largest increases in Liberia (+27.8%), Gabon (+20.3%) and Equatorial Guinea (+20%). Even in those four states that saw a decline in the percentage of fisheries in these two categories (Over-Exploited and Collapsed), the aggregate data may hide troubling trends, as three of them (Cote d'Ivoire, Senegal, and Cabo Verde also saw increases in the percentage of fisheries classified as Collapsed.268

Figure 17: Change in percentage of threatened fisheries, 2008-2018

Combined, this data presents an extremely bleak picture of the future of fisheries health in the Gulf of Guinea. While it is not possible to determine the exact degree to which this decline in fisheries

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268 Ibid.

269 Ibid.
health is due to IUU fishing as opposed to other challenges like climate change, gaps in fisheries management strategies, and marine pollution, it is reasonable to assume that it is a significant factor.

Loss of Livelihoods

One of the most visible examples of IUU fishing’s contributions to declining fisheries health is the loss of livelihoods for coastal communities that are economically reliant on fishing. The fishing industry (and artisanal fishing in particular) is a major source of income, employment, and general economic security for many individuals and communities across the Gulf of Guinea littoral. It is estimated that up to a quarter of jobs in West Africa are linked to the fisheries sector. Other estimates have put the number of fisheries jobs in coastal areas of the Gulf of Guinea at approximately 9 million.

IUU fishing presents a direct challenge to the livelihood of coastal communities, as it depletes the stocks available for local artisan fisheries who cannot match the rate of catch of large IUU fishing vessels. In addition to the detrimental impacts of IUU fishing by foreign vessels on fisheries health broadly, it appears that these vessels also come into direct conflict with smaller scale artisanal fishers in the region. Large vessels engaged in IUU fishing operating close to shore deplete the nearshore fish stocks on which the artisanal fisheries rely. Such vessels sometimes also cause further damage to the equipment of artisanal fishers, in ways that pose an even more direct threat to their livelihoods (e.g. passing over or through nets set by artisanal fishers). This may compel artisanal fisheries to seek their catch further out to sea in vessels not designed for open waters, making fishing increasingly dangerous.

While systematic data on the catch and income of artisanal fishers in the region is not available, anecdotal evidence suggests that both have been impacted by the prevalence of IUU fishing in the region. Artisanal fisheries catch in the region is estimated to have peaked in 2004 and declined significantly over the subsequent decade. For example, local associations of artisanal fishers in Ghana report that catch of sardinella has dropped by 80% over the last 20 years, reportedly as a result of IUU fishing.

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consequence to the exploitation of resources by foreign trawlers.\textsuperscript{276} Fishing vessels from outside the region (particularly from the EU, China, South Korea, and Russia) have been active fishing (both legally and illegally) in the Gulf of Guinea for decades.\textsuperscript{277} Estimates of long-term trends up to 2015 appear to show declining daily incomes for fishers along the west coast of Africa as well, particularly in terms of purchasing power.\textsuperscript{278} In Ghana, the World Bank reports that incomes for artisanal fishers dropped by as much as 40% in the decade prior to 2016.\textsuperscript{279} If the decline in artisanal fisheries catch and income continues it is likely to have dire socioeconomic ramifications for fishers, their dependents, and the coastal communities in which they live. While the full scale of IUU fishing activity’s impacts on the economic wellbeing is difficult to quantify, anecdotal evidence suggests the impacts are significant and if it were better understood there may be the potential to mobilise increased resources from international partners directed at mitigating the impacts on the economic security of coastal communities.

This would represent an important step in addressing this core catalyst of many of the region’s maritime security challenges. Reduced economic security among coastal communities along the Gulf of Guinea could also have second order impacts on maritime security, as it may incentivise fishers to turn to other forms of illicit maritime activities to make ends meet. This would have implications for other maritime security challenges such as trafficking were fishers who have lost their income, due in part to IUU fishing, to turn to participation in maritime trafficking to make ends meet.

Fishing vessels, and fisheries processing facilities have long been used in the region’s maritime drug trade for transportation into the region,\textsuperscript{280} storage,\textsuperscript{281} and distribution out of the region.\textsuperscript{282} Local fishing vessels are relatively inconspicuous and thus an attractive option for traffickers and smugglers. Moreover, given declining catch and income for artisanal fishers the lure of sizable earnings for participation in drug trafficking may be difficult to decline. Fishers who became involved in drug trafficking in Guinea-Bissau for example cited declining income from fishing as the primary factor for their involvement.\textsuperscript{283} The same economic hardship for coastal communities caused by IUU


\textsuperscript{280} INTERPOL, Study on Fisheries Crime in the West African Coastal Region, INTERPOL, September 2014: 29.


\textsuperscript{282} INTERPOL, Study on Fisheries Crime in the West African Coastal Region, INTERPOL, September 2014, p. 29.

fishing is likely to generate similar economic imperatives for participation in other forms of illegal activities such as maritime human trafficking and smuggling of contrabanded goods.

**Threatened Food Security**

Fisheries products are not simply a commodity in the Gulf of Guinea and IUU fishing impacts on artisanal fisheries are not exclusively a question of economic displacement. Artisanal catch is also a vital source of food security on which many in Gulf of Guinea countries rely. Fish and seafood makes up 26.2% of animal protein consumption in Central Africa and 34.1% in West Africa. In certain states, reliance on affordable protein from fish is even higher; for example, in countries like Sierra Leone, Sao Tome and Principe, Guinea, The Gambia, and Equatorial Guinea, fish and seafood constitute more than 60% of animal protein consumed. Across the region artisan fishers provide readily available and, critically, affordable protein for communities.

The market dynamics of IUU fishing are undermining both the availability and affordability of this key source of nutrition. IUU fishing appears to be impacting artisanal catch generally, but it is also driving up the cost of fish for communities in the region in several ways. At a macro level, as many foreign vessels engaged in IUU fishing tranship their catch at sea to be landed and processed elsewhere in the world, very little of that catch actually lands in the Gulf of Guinea. On the contrary, it is processed elsewhere and exported back to the Gulf of Guinea, increasing the price for local communities.

Another example is the growing demand of the global fishmeal and fish oil markets and their impacts on Gulf of Guinea fisheries. These are rapidly expanding global markets and the Gulf of Guinea’s fisheries have become a critical link in that supply chain. More than half a million tons of the small pelagic fish are harvested in the region and processed into fishmeal to be used to feed livestock and in aquaculture, as well as fish oil for cosmetics and dietary supplements. While these species were previously utilised locally as an affordable source of critical protein for human consumption, they are now increasingly exported out of the region as agricultural inputs and consumer products in the developing world, decreasing their availability and affordability for local communities. Should IUU fishing continue unabated, it could undermine the food security of communities across the Gulf of Guinea with extremely limited affordable alternatives for their nutritional needs.

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286 Interview by author June 3rd, 2021.


Corruption and Loss of Tax Revenue

In addition to the individual and community scale impacts of IUU fishing on local artisanal fishers in the Gulf of Guinea, this activity may also facilitate corruption and loss of much needed tax revenue for states in the region. Corruption is a concern when any illicit activity is involved. In the case of the Gulf of Guinea, corruption appears to be both a facilitating factor and an outcome of IUU fishing. An INTERPOL study on criminality in the fisheries industry found that regional stakeholders in the Gulf of Guinea consistently identified corruption as a facilitating factor for IUU fishing in the region.\(^{289}\) It also identified three general typologies of corruption associated with IUU fishing in the region\(^{290}\) including:

- Bribes paid to enforcement officials at sea or in ports upon discovery of a violation.
- Bribes paid to mid to high level officials in fisheries management and licensing authorities for licenses which vessels would not otherwise qualify for (for example licenses for foreign owned and operated vessels designated for local vessels) or which legitimate overfishing.
- Bribes paid to members of the judiciary or fisheries administrations after a violation has been issued in order to influence the punishment or financial ramifications for the vessel operator or owner.

While each of these facilitates IUU fishing in different ways, generally each serves to either legitimise harvest which would not otherwise be legal and/or reduce the deterrent effect of enforcement and prosecution. In both ways, corruption allows IUU fishing to continue with minimal risk for those involved and undermines the fisheries enforcement and management in ways which ultimately degrade the sustainability of the resource and its potential socioeconomic contributions to the region.

In addition to degrading the livelihoods and food security of communities dependent on fisheries resources, IUU fishing-associated corruption also detracts from much needed government revenue. Generally, because IUU fishing is illicit in nature, states in the region do not receive the revenue from taxes and licensing/registration fees associated with the legal fishing industry. Ghana for example, has put in place legislation which prohibits foreign ownership or control of Ghanaian flagged fishing vessels. Despite this, it was estimated in 2021 that 90% of Ghanaian flagged trawlers were operated by Chinese beneficial owners.\(^{291}\) These vessels utilised front companies in Ghana to obscure their beneficial owners and gain access to licenses for which they would not otherwise qualify. Estimates suggest that Ghana was losing tens of millions of USD annually in the form of lost licensing fees and enforcement revenue.\(^ {292}\) This case highlights the ways in which actors skirt legislation and

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\(^{290}\) Ibid.

\(^{291}\) The report in question defines a beneficial owner as “a natural person who ultimately owns or controls a legal entity or arrangement.” This is intended to draw a contrast to local citizens or firms which have official ownership if a fishing operation but serve only as a front company.

management policies to attain harvests which deny states in the region of necessary revenue and detract from the long-term potential of fisheries resources to contribute to the socioeconomic wellbeing of communities.

**Forced Fisheries Labour**

Lastly, IUU fishing also facilitates forced fisheries labour in the Gulf of Guinea. On a global scale, there is a broad and widely accepted correlation between vessels engaged in IUU fishing and the use of forced labour. Forced labour aboard fishing vessels is a global challenge that takes many forms, from outright kidnapping and slavery to debt bondage, with varying levels of violence and coercion against members of the crew. Reported cases of forced fisheries labour in the Gulf of Guinea are extremely low, but as a largely unreported crime with terrible human costs, it garners attention in any consideration of the socioeconomic costs of IUU fishing activity.

While the quantified prevalence of forced labour across states is impossible to know with absolute confidence, there are certain, measurable factors which are known to heighten the risk of such exploitation. One of the best available metrics for the risks of forced labour is the Global Slavery Index (GSI). The GSI incorporates quantitative metrics of known risk factors related to governance, socioeconomic needs, inequality, disenfranchisement, and conflict to calculate scores (ranked from 1 to 100, with lower numbers representing lower risks of slavery) to provide an aggregate assessment of a state’s risk of forced labour. The average score for the Gulf of Guinea is 60.6, well above the global average of 45.6. In fact, of the 18 Gulf of Guinea states only two, Cabo Verde (44.5) and Benin (45) come in just below the global average, while five states in the region are in the top 21 most vulnerable states including the DRC (91.7), Nigeria (71.1), Guinea-Bissau (70.5), Cameroon (69.5) and the Republic of Congo (69.2). As such, it would appear that the region is highly vulnerable to forced labour. This vulnerability manifests in the local artisanal fishing sectors as forced or coerced labour, particularly targeting young boys, has been widely observed in inland and marine contexts in Ghana, Sierra Leone, and Senegal for example. Children often perform dangerous tasks such as diving to recover or guide nets, work extremely long hours with inadequate nutrition, and are subjected to severe physical punishments.

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296 ibid.
297 Sao Tome and Principe is not included in the GSI.
298 ibid.
Narrowing the scope to the potential for forced labour among IUU fishing vessels in the region more specifically, there is a broad understanding of a strong correlation between IUU fishing activity and forced fisheries labour. This makes intrinsic sense as vessels involved in IUU fishing are already engaged in illegal activity and avoiding scrutiny from regulation and law enforcement. Quantitative research has further demonstrated a strong positive correlation between IUU fishing and GSI scores as an imperfect proxy for forced fisheries labour at a national level. In addition, there are also several characteristics of the IUU fishing fleet in the Gulf of Guinea that are known to heighten the risk of forced labour. The first is the distance of an IUU fishing vessel from its home waters. Research has shown a positive relationship between the distance from home waters and the exploitation of forced labour on fishing vessels. Because crew aboard distant water fishing vessels may be less familiar with the geography, language, and legal protections in the jurisdiction where the vessel is operating, they are more likely to be susceptible to coercion. As nearly all foreign vessels suspected of IUU fishing activity in the Gulf of Guinea are distant water fleets from outside the region, this may heighten the risk of forced fisheries labour aboard these vessels. A second, and related risk factor is the use of transhipment to offload catch and resupply. These vessels can stay at sea, fishing, sometimes for years at time without needing to return to port. This severely limits the opportunities to victims of forced labour to escape the vessel, essentially imprisoning them onboard and at sea. As many of the foreign vessels suspected of IUU activity in the Gulf of Guinea make use of transhipment, this also heightens the risk of IUU fishing vessels in the region being engaged in forced labour.

Given the combined presence of risk factors onshore, characteristics of fishing activity which facilitate forced labour at sea, and that some of the fishing fleets suspected of IUU activity in the Gulf of Guinea have been exposed as exploiting forced fisheries labour in other regions of the world, it would appear that the risk of IUU fishing in the Gulf of Guinea including some level of forced labour is high. It is a phenomenon that is not frequently observed, but this may be a result of its inherently clandestine nature and a general lack of offshore maritime enforcement capacity in the region. Given the potential human costs involved, it is an issue deserving of close monitoring and further scrutiny.

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301 Ibid.
Conclusions and Potential Areas of Operation

In light of the examination of the trends in and impacts of these various forms of maritime threats in the Gulf of Guinea, several cross-cutting gaps re-emerge throughout the analysis. These serve as a useful basis for a discussion of potential areas of policy prioritisation. Each of these areas offer opportunities to counteract illegal activities at sea in the region through sustained policy attention and resourcing. The more prominent issues include:

Enhanced Maritime Domain Awareness

It has become redundant for studies of maritime security to advocate for increased MDA. But the fact that it is such an often-repeated refrain indicates the difficulty of achieving comprehensive MDA and the persistence of the problem. Gulf of Guinea states have very low baseline levels of MDA. Most states have very limited assets for patrolling the maritime domain. While Nigeria is the exception in the region with more than 120 patrol craft, most states in the region have very small numbers of assets to project maritime security and governance. Countries in the region such as Liberia, Sao Tome & Principe, Sierra Leone, Togo, Cote d’Ivoire, Guinea, and Guinea-Bissau have fewer than four vessels available for maritime patrol. Regional states also have limited capabilities for remotely monitoring vessels at sea. This leads to a situation in which states likely have only a narrow picture of the scope of activity, both licit and illicit, within their respective maritime domains. Innovations such as the recently adopted Falcon Eye project in Nigeria, which combines several types of remote sensing technology, are a significant step forward in this regard, but these capabilities are far from universal. In addition, such tools are often prohibitively expensive. Future efforts to increase the patrol assets, develop remote sensing capabilities where sustainable, increase use and of and compliance with vessel monitoring systems for regional fishing vessels, and make more systematic use human intelligence derived from coastal communities could all have significant impacts in providing a more complete picture of maritime activity for regional states and provide the tools to better counteract all three forms of illegal activities at sea examined in the report.

Anti-Corruption

Corruption is both a result of and a facilitating factor for maritime criminality in the Gulf of Guinea. Illegal activities like IUU fishing and maritime trafficking provide opportunities for official corruption and this corruption then becomes central to the continuation of such enterprises. Perceived levels of corruption in the Gulf of Guinea are generally high, though significantly improving. The report has detailed the ways in which corruption contributes to the problems of IUU fishing and maritime

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304 Stable Seas, “Stable Seas Maritime Security Index Data,” Accessed 2 September 2021, Available at: https://docs.google.com/spreadsheets/d/1YIKxvS08rin_fl3ebMlcv5GqD07_blB7d80V5lwcDo/edit#gid=0.
trafficking of drugs and wildlife. Steps to counter corruption in fisheries authorities, natural resource departments, ports, customs, and maritime law enforcement are extremely important in making the operating environment for those seeking to exploit the region’s maritime domain for criminal purposes less permissive. Increasing transparency of licensing processes and reducing the discretionary authority of officials in fisheries, customs, and ports could be particularly beneficial in helping reduce opportunities for bribery and corruption.

Data Collection and Transparency

A recurring finding of the report is that there is often a lack of comprehensive, representative, and comparable data on illegal activities at sea in the region. This is a challenge for issues of maritime security across the globe, though it appears particularly stark in the Gulf of Guinea. Without high quality data on these complex and ever-evolving issues, policy makers do not have the information necessary to analyse trends and react to shifting patterns. Multilateral organisations, civil society actors and regional states should work together to find creative ways to collect and disseminate high quality data on maritime security issues in the region which allow for a more complete picture of the issues at hand.

Regional Cooperation

The maritime security challenges examined in this report are inherently transnational. Fishing vessels follow stocks across borders, pirate groups originating in one area victimise seafarers and fishers across the region, and illicit goods trafficked through the maritime domain cross a multitude of borders within the region and across the globe. In response to the transnational nature of these challenges, Gulf of Guinea states developed the Yaoundé Code of Conduct (YCoC) to address shared maritime security issues. The Yaoundé Architecture included the formation of regional maritime information sharing centres in both West (CRESMAO) and Central Africa (CRESMAC). It also saw the creation of national maritime operation centres in each state and multinational zones for the facilitation of information sharing and coordinated operations. However, while the Yaoundé Architecture provides an excellent structure for information sharing and coordinated action on maritime security, complete implementation has been extremely slow. Despite being signed in 2013, the original vision of the Architecture is far from reality as only one of the envisioned multinational zones is fully functional and conducting joint patrols, and the national centres vary significantly in capacity. While there are recent signs of progress towards implementation, there is more to be done. Any steps both regional states and international partners can take to mobilise the political will

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309 Ibid.
and resources necessary to make the vision of the YCoC a reality could yield substantial progress towards counteracting the types of illegal activities at sea discussed in the report.

Coastal Welfare

Sometimes overlooked, the socioeconomic welfare of coastal communities is central to the security of the Gulf of Guinea. Maritime security issues do not simply start and stop at the water’s edge. Poverty is a significant challenge across the region. Thirteen of the 19 states in the scope of the report see most of their populations living on less than USD 3.20 a day. Nigeria recently surpassed India as the single state with the highest number of people living in extreme poverty. This degree of economic insecurity can be a significant driver of illegal activities at sea. Particularly as a variety of factors negatively impact the ability of fishers to earn an adequate income, more and more members of coastal communities may turn to participation in criminal act as an alternative strategy to provide for their basic needs. Any long-term, sustainable efforts to address maritime threats in the region must consider the socioeconomic roots of the problem and include efforts to build the economic security of coastal communities most at risk.

A Holistic Approach to Maritime Security

Finally, efforts to improve maritime security in the Gulf of Guinea would benefit from a holistic approach. Too often, individual maritime security issues are approached in isolation. Challenges are interlinked and there is a need to approach the diverse components of maritime security holistically. In the Gulf of Guinea in particular, there is a tendency for the international community to focus its attention on piracy and armed robbery as, if not the only, then certainly the most central maritime security issue in the region. But piracy is only one of many important maritime security issues to policy makers in the region. A singular focus on piracy many also ultimately undermine the long-term efficacy of counterpiracy efforts. Without simultaneously addressing issues such as coastal welfare, rule of law, and IUU fishing, counterpiracy efforts may find temporary success, but will fail to address the root causes of the issue.

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Annex 1: Methodology

The following methodology was written in advance of the majority of data collection and the authors acknowledge that some of the following may be amended before submission of the final draft of the report. A note on trends: this report analyzes the period from 2015-2020 but it is well known that the global Covid-19 pandemic had widespread implications for maritime shipping traffic and socioeconomic health in coastal communities (as well as inland.) The report authors are unable to generally disaggregate the effects of the pandemic from the effects of maritime crime, though we will discuss the links between these crises where possible.

Piracy and Armed Robbery Data and Methods

Trends Analysis

The Piracy and Armed Robbery trends analysis was heavily dependent on strong incident data. The database was built from data derived from reputable piracy databases from the International Maritime Bureau, the International Maritime Organization, and Stable Seas. In order to discern trends in the region between 2015 and 2020, this report takes into account vessel type, incident location, type of incident, and other characteristics such as crew size and nationality and length of hostage-taking (if applicable).

Cost Assessment

For the cost assessment of piracy and armed robbery, we focused on the direct spending by industry stakeholders to avoid and prevent incidents of armed robbery at sea against vessels transiting the Gulf of Guinea. Because of the effects of the Covid-19 pandemic on global shipping, the authors opted to assess the cost on shipping in the year 2019, rather than 2020. One critical piece of information needed to calculate these figures is the number of vessels operating in the region. The Gulf of Guinea offers a challenge in a sense, because vessels in this region often make several calls at various ports across the region. For this reason, an estimate of vessel “transits” does not suffice. We estimate the number of vessels in the region annually to be approximately 11,660.313

The number of vessels in the region is the first step to determining the cost of insurance to shipping companies operating in the region, hazard pay for crews transiting the high risk area, the cost of ship upgrades and ship protection measures such as those outlined in Best Management Practices to Deter Piracy and Enhance Maritime Security off the Coast of West Africa including the Gulf of Guinea, also known as BMP West Africa. The ship protection measures included in this response were inspired by those in BMP West Africa. BMP West Africa was collaboratively developed with shipping industry representatives and international and regional maritime security authorities. The guidance outlines tools including strong vigilance, razor wire, manoeuvring, increased speeds, private security, door hardening, closed circuit television, and usage of a citadel, or safe muster point. We relied heavily on industry expertise for the cost of secure anchorage areas and security escort vessel services.

The research will explore the existence of ship re-routing away from dangerous areas, though at the time of writing, the authors cannot conclusively say that extensive re-routing is happening in the region to the extent that was observed off of the Horn of Africa during the peak of Somali piracy. Through interviews with industry representatives and other experts with familiarity with the shipping industry, the authors will first attempt to understand the degree of ship re-routing to avoid areas of highest danger and the routes that shipping companies employ, and then will attempt to calculate the cost to a vessel to employ such tactics.

The calculations we make throughout the report employ conservative estimates and low-end figures in order to avoid overstating the cost of maritime crime in the region. Additionally, we make no estimates for those costs about which we could not find credible data.

313 Ocean Beyond Piracy’s State of Maritime Piracy 2016 employed AIS data to come up with a vessel estimate of 11,000. We multiplied that number by the annual seaborne trade volumes estimated in the United Nations Conference on Trade and Development’s annual Review of Maritime Transport studies for 2017, 2018, and 2019, in which the global seaborne trade expansion rates were 2.6%, 2.8%, and 0.5%, respectively.
Illicitly Trafficked Wildlife, Drugs, and Weapons Data and Methods

Trends Analysis

Baseline trends in maritime trafficking of wildlife, drugs, and weapons are estimated from annual seizure data (“busts” taking place in Gulf of Guinea ports, as well as those conducted by maritime law enforcement agencies) and analysis of existing research on the topic. The authors attempt to validate baseline trends through interviews with individuals with expertise in the region, including maritime security authorities (including customs officials and maritime enforcement entities), think tank representatives, and government officials.

Socioeconomic Effects

Given the wide range of illicitly trafficked items, from fuel and rice to wildlife and weapons, it is unsurprising that the socioeconomic impacts on coastal communities and populations of such black markets are equally wide-ranging. For this section, the authors evaluate rates of drug usage in Gulf of Guinea countries and examined, using open sources, the health impacts of drugs that are often trafficking using maritime routes in the region. Further, through open source research and interviews with civil society organizations and security forces, we explore the connections between trafficked weapons to violence in coastal communities and to conflict elsewhere in the region, such as the Boko Haram/ISWAP conflict in the Lake Chad Basin. Through data gathered from research by environmental NGOs and government reports and through interviews with conservation experts, we attempt to understand the impact of illegal wildlife trafficking on the ecosystems of Gulf of Guinea countries. Though the socioeconomic impacts of loss of biodiversity in the Gulf of Guinea will not be immediately felt by regional populations, we will explore the long-term ramifications of such impacts. Finally data collected from interviews as well as synthesized from academic research will help us explore how the profits from illicitly traded goods fund violent non-state actors operating in the area, with obvious repercussions for regional populations.

IUU Fishing Data and Methods

Trends Analysis

Using international environmental NGO data (Sea Around Us, Global Fishing Watch, the Global Initiative Against Transnational Organized Crime), the authors develop estimates of the number of foreign fishing vessels in Gulf of Guinea waters from 2015-2020. This can only serve as an approximation for illegal, unreported, and unregulated fishing, of course, as many - or maybe even most - foreign fishing vessels are participating in legal and licensed fishing activity. However, the most egregious perpetrators of IUU fishing have historically been extra-regional vessels so the authors believe this is an appropriate approximation. We will supplement this approximation through interviews with subject matter experts from civil society and regional government.

Socioeconomic Effects

Through analysis of case studies and academic/NGO research, interviews with both international and regional NGOs as well as government officials, this report seeks to understand the socioeconomic impacts of IUU fishing on coastal residents, which may include loss of livelihood for former fisherfolk and other members of the fish processing supply chain; the environmental impact on marine ecosystems from overfishing and illegal fishing methods such as dredge nets; and the cost of corrupt state officials overselling fishing licenses.