

Organised Crime in the Fisheries Sector

16

Emma Witbooi, Kamal-Deen Ali, Mas Achmad Santosa, Gail Hurley, Yunus Husein, Sarika Maharaj, Ifesinachi Okafor-Yarwood, Inés Arroyo Quiroz, and Omar Salas

Highlights

- The fisheries sector, like most economic sectors, is impacted by organised crime. Organised crime deprives states of national revenue and threatens the legitimate fishing industry and the livelihoods of those that rely on it.
- Organised crime in fisheries undermines the rule of law, threatens peace and security, jeopardises food security for coastal states and communities, and adversely impacts fishing communities and fish stocks at the national, regional and global levels.
- Manifestations of organised crime in fisheries take many forms: fraud, corruption, tax crime, money laundering, crime in the labour market, security offences, drug trafficking, smuggling of fuel and migrants and fisheries offences. These offences occur throughout the fisheries value chain, often in combination, and frequently transnationally.
- The continuation of organised crime in fisheries undermines the global commitment to sustainable development and the realisation of a sustainable ocean economy.
- Yet despite significant evidence of the dynamic and destructive impact of organised crime in the fisheries sector, the need remains for an effective, coordinated enforcement response at the national level and globally.
- This paper summarises the current state of knowledge on the phenomenon of organised crime in the fisheries sector and its impact on sustainable development, using case studies and examples, and drawing on available scholarly

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- literature, technical documents, media reports and expert input. The paper identifies opportunities for action for moving forward at a global level to address this challenge to the realisation of a sustainable ocean economy.
- To comprehensively address organised crime in fisheries, states should, first, build a shared understanding of the problem globally and, second, undertake intelligence-led, skills-based cooperative law enforcement at the domestic level facilitated by enabling legislative frameworks and increased transparency.

Methodology and Sources

This Blue Paper is based on invited input from the contributing authors, who are located around the globe and represent practitioners, academics and law enforcement. They were recommended to the lead authors based on their experience and knowledge of particular aspects of the topic, as well as the need for gender balance and to elevate voices from the Global South. The lead authors incorporated the contributors' written submissions into the body of the text. The paper is further shaped by feedback from expert consultations.

The paper was compiled over a three-month period. It draws on existing reports and outcome documents on the topic from international governmental organisations, nongovernmental organisations, governments and knowledge institutes, as well as published academic research, operational knowledge and expert input. The concept of 'knowledge' is interpreted widely; faced at times with sparse formal documentation of the manifestations of organised crime in fisheries, some of the illustrative examples referred to draw on anecdotal accounts, personal expert observations or journalist reports (or a mixture thereof), rather than citing scientific research or decided cases. Additionally, as the breadth of the issues covered is vast, it is recognised that various topics could benefit from further dedicated research, such as the scope of organised crime in the fisheries sector at a global level, analyses of the causal nexus between organised crime in fisheries and the highlighted potential impacts, and critical

assessment of the suggested promising practices. Addressing such issues would require empirical research employing a different methodology than the one used here. In sum, this paper contributes to the knowledge pool on the topic under examination while remaining mindful that there is scope for increased understanding of many facets thereof.

Aim

This Blue Paper aims to present an accessible summary of the current state of knowledge on the phenomenon of organised crime in fisheries and its impact on sustainable development, using case studies and examples sampled from contributors and experts, and to provide a suite of practical opportunities for action for moving forward at 2 | High Level Panel for a Sustainable Ocean Economy a global level to address the challenge organised crime poses to the realisation of a sustainable ocean economy.

1 Introduction

The modern fisheries sector is globalised, industrialised and integrated into the worldwide financial market. Like most other economic sectors, it is exposed to organised crime (UNODC 2011), the underbelly of globalisation (e.g. Madsen 2009; Abadinsky 2007; Obokata 2010).

While sometimes referred to as an 'emerging' crime (Stringer and Harré 2019), there is little reason to believe that organised crime in the fisheries sector is a novel problem. The infamous gangster Al Capone, for instance, exploited the fishing industry for rum-running during the 1920s, when the United States prohibited the production, importation, transportation and sale of alcoholic beverages (Ensign 2001; Demont 2003). The more likely scenario is that organised crime in fisheries is a recent label for a phenomenon that has existed for many years, fuelled by overfishing of declining fish stocks and greed, among other causes. In this narrative, an emerging focus on sustainable fisheries management and the role of the blue economy has heightened global attention to organised crime in fisheries, which is giving rise to a shadow blue economy and undermining the competitiveness of both the legitimate industry and the livelihoods of coastal communities. This heightened attention is allowing policymakers, researchers, and civil society to re-examine the dynamics and destructiveness of the shadow blue economy and the role of organised crime in it.

Organised crime is, by its clandestine nature, a difficult object of scientific inquiry. Verifiable data tend to be scarce, and, since these crimes often either go unidentified or are unsuccessfully prosecuted, statistics from domestic law enforcement agencies may lead to significant underestima-

tions of the problem. For our present purposes, we offer two case studies to explain organised crime in fisheries. While these case studies are not, on their own, dispositive of the global scale of organised crime in the fisheries sector, they shed light on the activities that are manifestations of such crime and the challenges they pose to criminal law enforcement.

In the past two decades the global community has increasingly raised concern about the threat of organised criminal networks in the fisheries sector, where they accrue high profits at very low risk of sanction. In 2008 the UN General Assembly warned of the 'possible connection between international organised crime and illegal fishing in certain regions of the world' (UNGA Resolution 63/112, para. 59). Highlighting the need for additional research into, and evidence of, the link between organised crime and illegal fishing internationally, the General Assembly 'encourages States, including through the appropriate international forums and organisations, to study the causes and methods of and contributing factors to illegal fishing to increase knowledge and understanding of those possible connections, and to make the findings publicly available, bearing in mind the distinct legal regimes and remedies under international law applicable to illegal fishing and international organised crime'. (UNGA Resolution 63/112, para. 59).

A comprehensive report by the UN Office on Drugs and Crime (UNODC 2011) highlighted the vulnerability of the global fishing industry to organised criminal networks. The report's main finding was that the opaque nature of the fishing industry renders it susceptible to multiple crimes that are largely transnational in nature and frequently organised. The report also found that the traditional fisheries management approach applied to date in the fisheries sector seems insufficient to deal with the nature and magnitude of the problem. It recommended that this approach be complemented by a cooperative criminal law enforcement response. This finding was echoed by the UN Commission for Crime Prevention and Criminal Justice (CCPCJ), which, in a 2011 resolution on transnational organised crime at sea (UN CCPCJ Resolution 20/5 (2011)), highlighted the imperative of 'international cooperation to prevent and control' transnational organised crime taking place at sea.

Significant efforts have since been made to understand the phenomenon of organised crime in the fisheries sector. In 2013, member countries of the International Criminal Police Organization (INTERPOL) established the Fisheries Crime Working Group. Using this cross-border cooperation platform, law enforcement officers have formed joint operations to target well-known fisheries crime networks and close down some of the most notorious. The lessons learned from these operations were shared with the global community through the International Symposium on Fisheries Crime, an

annual event held between 2015 and 2018, which brought together high-level law enforcement officers, civil society representatives and academics to discuss trends, challenges and solutions in relation to transnational organised crime in the fisheries sector (CCPCJ 2017).

In September 2018, this process culminated in the adoption of the International Declaration on Transnational Organised Crime in the Global Fishing Industry (Copenhagen Declaration) (Appendix A) by the ministers present during the Fourth International Symposium on Fisheries Crime in UN City, Copenhagen. As of 5 March 2020, the Copenhagen Declaration has received the support of 28 nations, most of which are 'large ocean nations', that is, territories highly dependent on the marine resources in their large ocean areas (LON Forum Report 2019). The supporting nations are Benin, Chile, Costa Rica, the Faroe Islands, Fiji, Ghana, Greenland, Iceland, Indonesia, Kiribati, Liberia, the Maldives, the Marshall Islands, Mexico, Mozambique, Myanmar, Namibia, Nauru, Norway, Palau, the Philippines, São Tomé and Principe, Scotland, Seychelles, the Solomon Islands, South Africa, Sri Lanka and Timor Leste. The declaration places the issue of transnational organised crime in the fisheries sector within the context of Sustainable Development Goals (SDGs) 14 and 16, and as part of an integrated and globalised world economy. The supporting countries also identify a course for a global commitment to combat this problem, stating that 'inter-agency cooperation between relevant governmental agencies is essential at a national, regional and international level in order to prevent, combat and eradicate transnational organised crime in the global fishing industry'.

In February 2019, submissions to the UN Security Council spoke to the threat that transnational organised crime at sea, including fisheries crime, poses to international peace and security (UN Security Council 2019).

This Blue Paper is the 16th in a series of Blue Papers commissioned by the High Level Panel for a Sustainable Ocean Economy. The authors of this Blue Paper were asked to address the question of how organised crime in the fisheries sector impedes the realisation of a sustainable ocean economy, and what practical measures can be taken to counter this. The authors were moreover directed to examine the various types of 'fisheries crime' in which organised criminals engage. This Blue Paper therefore explains the phenomenon of organised crime in fisheries, including the serious crimes indicative of its existence, using illustrative case examples to highlight the forms it might take, the ways organised crime in fisheries adversely impacts a sustainable ocean economy, and the associated law enforcement challenges. The paper also draws together a set of suggested practical means or 'opportunities for action' to address organised crime in fisheries.

2 State of Knowledge

2.1 What Is Organised Crime?

The premise of any discussion about organised crime in fisheries is a common understanding of what organised crime is. Although most people give the term 'organised crime' a similar meaning, there is little agreement on its exact characteristics, and numerous definitions of organised crime have therefore been put forward (for an analysis of these, see Varese 2017). In common parlance, there is a tendency to connect organised crime to hierarchical, exclusive and monopolistic groups—often with a strong ethnic or societal commonality—leaning towards violence, a criminal subculture or otherwise deviant behaviour (Abadinsky 2007). A broader understanding of organised crime—one that this Blue Paper adopts—is that it consists of networks of individuals who converge and collaborate over time to commit crime (Shaw and Kemp 2012). The networks' profile may vary significantly from loosely knit flat structures to strict hierarchical chains of command. Their criminal enterprise, geographical spread or crime script (modus operandi) may be equally diverse (Madsen 2009). Organised criminal groups may share with 'conventional' businesses many characteristics in their structure and capability (Australian Crime Commission 2009). These networks can form in any layer of society, or transgress these, with many examples found among white-collar criminals, people of professional authority and power who commit financial crime (Gottschalk 2012). Some authors also emphasise the ability to protect operations ('protection economy') through violence, bribery or extortion as a common, but not necessarily defining, feature of organised crime (Shaw and Kemp 2012).

Organised crime is also defined in law. One of the most widely accepted legal definitions internationally (through state ratifications) is that of the UN Convention on Transnational Organised Crime (the Palermo Convention) (UN 2004a). The Palermo Convention paints a broad picture, according to which organised crime can be defined as a serious crime committed by a structured group of three or more people for financial or other material benefit (UN 2004a, Article 2(a)). The convention defines a serious crime as an offence 'punishable by a maximum deprivation of liberty of at least four years' or a more serious penalty (UN 2004a, Article 2(b)). The Annual European Union Organised Crime Report (EUROPOL 2004) offers a slightly different definition, referring to organised crime as a collaboration of more than two people suspected of committing serious criminal offences in the pursuit of profit and/or power and for a prolonged or indefinite period (Fröhlich 2003).

It is recognised that while international instruments provide a clear legal benchmark of what constitutes organised crime, outside the letter of the law, both conceptually and in practice, there is often ambiguity around what is regarded as 'criminal behaviour'. In particular, views differ regarding the extent to which criminal economies associated with organised crime are 'normalised' in any given society (Shaw 2017; Gilman et al. 2011).

A distinction could be made between organised crime taking place within the fishing industry and ancillary to its business operations (e.g. illegal fishing or human trafficking) and organised crime taking place outside the industry using the sector as a cover for other criminal activities (UNODC 2011), such as the smuggling of contraband (like Capone's rum running in the 1920s). With regards to the latter, an organised crime operation may enter the fishing industry in order to launder proceeds from its illicit activities and/or to provide a legitimate reason for being at sea so as to illicitly traffic goods (Parks 2014). In practice many of the same issues pertaining to law enforcement will arise regardless of whether the organised crime is embedded in the industry or not.

From a law enforcement perspective, organised crime networks in fisheries can be involved in a broad range of criminal offences. The most common are economic crimes, such as money laundering, fraud, forgery, tax and customs evasion, corruption and human trafficking, in addition to criminal offences found in sector regulations, such as in the fisheries, health and safety, and maritime sectors. In practice, crime in the fisheries sector, often referred to as 'fisheries crime' and 'fisheries-related crime' (UNODC 2019a; FAO 2019), covers criminal offences taking place throughout the fisheries value chain, from the preparatory stage (including vessel insurance and registration) to at-sea activities (including harvesting and catch documentation) to landing, processing, transportation, trade and sale (UNODC 2017). Criminal offences may thus be committed at sea, on land, in cyberspace, or at the coastal interface. A commonality is that the offences are profit-driven, that is, they are economic crime and are frequently committed by white-collar criminals (UNODC 2019a). Many of these offences are conducted or continued (in whole or in part) extraterritorially, on the high seas and in other areas beyond national jurisdiction, such as regional seas, making most fisheries crime cases transnational, with the added complication of jurisdictional obscurity (NA-Fig 2017).

2.1.1 Case Study 1: The Viking Case

In February 2016 the Indonesian navy intercepted and detained the fishing vessel *Viking* in Indonesian waters. The vessel was the subject of an INTERPOL purple notice, that is, an alert about the crime script of a criminal network. The purple notice issued on the *Viking* notified law enforcement agencies around the world of the network's use of numerous vessel identities and nationalities (flag states) and the ves-

sel's unclear ownership structures. This crime script made it difficult for law enforcement agencies to identify which country had jurisdiction over the vessel and which country was responsible for its activities. As a result, for more than a decade, the owners and operators of the *Viking* were able to land and enter into the market illegally caught Patagonian toothfish from the Southern Ocean, an extremely valuable species dubbed 'white gold', in contravention of the multilateral fisheries management regime in these waters. The network's turnover from the activities of this vessel alone was estimated by crime analysts to be about half a billion dollars during the time of its operation, and there is good reason to believe that the network operated several such vessels (expert consultations 2019).

During their preliminary inquiries Indonesian authorities established that the documents presented on behalf of the vessel were forgeries, meaning that the vessel sailed under a false identity and flag. It also proved impossible to trace the company stated to be the vessel's owner, suggesting that this was a fictional company. Indonesian authorities regarded the vessel to be stateless and subjected it to Indonesian jurisdiction. In Indonesia, document forgery can be penalised by imprisonment of up to six years (Indonesian Criminal Code, Article 263). The vessel's hold was also found to contain gillnets exceeding 2.5 km in length, which is an infringement of Indonesian law and subject to five years' imprisonment and a fine of up to 2 billion Indonesian rupiah (US \$150,000) (Indonesian Fisheries Law, Article 85).

Further investigations led by the Indonesian authorities revealed the level of organisation of the network behind the Viking's operations. The master of the vessel was in frequent communication with an Australian national based in Singapore who acted as the operator of the vessel and provided logistics, supplies and financing. The master was also in contact with a Spanish national, domiciled in South Africa, who was later identified as the likely beneficial owner of the vessel. These were allegedly the three core members of the network at the time. Other members included at least one other master of the vessel (the masters rotated on shifts throughout the year) and a Singaporean financier. Together the network's members conducted a highly complex transnational business operation. The vessel operated out of ports across Southeast Asia and Africa, using forged documents with numerous identities and nationalities. It landed, shipped and traded Patagonian toothfish and sourced crew, supplies, spare parts, gear and fuel around the world.

This case is an example of transnational organised crime in the fisheries sector: It involved a network of at least three members who orchestrated the commission of serious criminal offences, including illegal fishing and fraud, across multiple jurisdictions for significant material gain and over a prolonged period.

2.1.2 Case Study 2: The Rock Lobster Case

In May 2001, following a tip, officials from the South African Marine and Coastal Management branch seized and opened a container destined for the United States belonging to the South African company Hout Bay Fishing Industries (Pty) Ltd. This company was one of the largest seafood producers in the country at the time and a major employer. The container's contents comprised unlawfully harvested lobster tails and Patagonian toothfish. The South African officials alerted the relevant U.S. authorities, who intercepted the next container the company exported to the United States. In August 2003, following a protracted investigation by South African and U.S. law enforcement, the director of Hout Bay Fishing Industries and two others were arrested and criminal proceedings launched in both South Africa and the United States.

The investigation revealed that between 1987 and 2001 a network consisting of three directors of Hout Bay Fishing Industries illegally harvested large quantities of west and south coast rock lobster in South African waters for export to the United States. The network systematically exceeded the authorised quota for lobster during this period; in 1990, around 90 percent of the west coast rock lobster they exported to the United States was caught illegally. To facilitate the operation, the network established companies in both South Africa and the United States, bribed many government fisheries officers and other officials, and laundered profits in a complex web of properties and offshore banks and trusts.

South African authorities charged the main director of Hout Bay Fishing Industries with a range of offences including fraud, corruption and bribery under the Prevention and Combatting of Corrupt Activities Act, racketeering under the Prevention of Organised Crime Act, violations of the Marine Living Resources Act and activities contrary to the Customs and Excise Act. In the United States, the Lacey Act makes it illegal to introduce into the United States any fish or wildlife taken in contravention of the laws of another country. The directors of Hout Bay Fishing Industries were arrested and found guilty in the United States of violating the Lacey Act, as well as smuggling and conspiracy, and in 2004 they were sentenced to imprisonment and forfeiture. A U.S. court also awarded the South African government \$22.5 million in restitution for damages, but investigators had a hard time locating and freezing the main director's assets to secure the restitution amount. In September 2018, more than 15 years after the activity was first detected, investigated and tried by the U.S. court, a final settlement agreement of \$7.5 million was ordered.

The rock lobster network is a good illustration of a criminal network that started out as legitimate business and transitioned into transnational organised crime in the fisheries sector. The network consisted of at least three members (or business associates) who conspired to commit serious crime in at least two jurisdictions and with bank accounts in numerous other offshore jurisdictions for significant material gain over a prolonged period. The case also illustrates the lengthy and complex cross-border investigations required to address transnational organised fisheries crime, in this case more than a decade and a half.

2.2 Manifestations of Organised Crime in Fisheries

This section describes several serious offences that are committed as part of organised crime in the fisheries value chain.

2.2.1 Fraud

Fraud refers to deliberate misrepresentation or concealing of facts for undue benefit (UNODC 2017). Forgery, or misrepresentation by falsifying a document, is often regarded as a subset of fraud. Some jurisdictions also have distinct offences of false declarations to public authorities.

A large amount of documentation is produced throughout the fisheries value chain, creating significant potential for fraud and forgery. This is particularly true of documents with a high cash value, such as vessel registration certificates, landing documents and fishing licences. In the case of the Viking, false vessel registration documents were submitted at port, comprising text clearly cut and pasted from Google Translate and using ordinary word processing software (NA-Fig 2017). Fishing vessel identity fraud is used by criminals to change their vessel's identity with relative ease by, for example, giving more than one vessel in a fishing fleet the same name and operating all vessels under the same fishing licence, not flying the correct flag at port, or physically hiding or painting over a vessel's name in order to render it anonymous (NA-Fig 2017). Vessel identity fraud is closely associated with 'flag-hopping', a pattern of re-registering a vessel with new flag states to confound investigations into its illegal operations, as was the case with the Viking (NA-Fig 2017).

Fraud can, moreover, be committed at the harvesting stage when inaccurate catch records are maintained pertaining to, for example, in which waters the fish were caught, the amount of fish caught and the species harvested (UNODC 2011). At the subsequent processing stage (at sea or on land), fish and fish products may be fraudulently labelled to avoid paying higher customs duty on high-value species (EUROPOL 2018). One example is that of the fishing vessel *STS-50*, also known as the *Andrey Dolgov* and later the *Sea Breeze*, which was found with falsified information regard-

ing the species of fish (mislabelling) on numerous occasions, leading to its apprehension by Chinese authorities in 2017 (Gray 2019). Deliberate mislabelling may also occur at the retail stage in order to obtain a higher asking price or to disguise the species of fish (if it was caught illegally) or the fish's country of origin (OECD 2013; Oceana 2018). On landing, false or forged customs and health documentation may be used to disguise the catch's country of origin or the true identity and flag of the vessel that caught the fish, to avoid paying import tariffs or having to comply with food hygiene regulations (UNODC 2017). For instance, on the basis of fraudulent landing certificates, Trinidad and Tobago is cited as the world's sixth-largest shark fin exporter to Hong Kong (Pew Charitable Trusts Environmental Group 2012), despite the fact that its domestic fleet lacks the capacity to catch and land such quantities; the fins are, in fact, landed from foreign fishing vessels and sent in transit through Trinidad and Tobago ports.

2.2.2 Corruption

An act of corruption is the giving, solicitation or receipt of an undue advantage with the purpose of making a person (working as an official for a private or public entity) act or refrain from acting (UN Convention on Corruption: UN 2004b, Chap. 3). Most people will associate corruption with bribery (UN 2004b, Articles 15 and 17), but variations such as embezzlement (Article 17) and abuse of function (Article 19) are also within the purview of the definition.

Corruption manifests in the fishing sector in various forms (UNODC 2019a): On shore, abuse of function may occur when political figures or senior government officials use their positions to influence the allocation of fishing licences to companies or businesses in which they have a personal business interest (UNODC 2017; Standing 2015, 2008). One case currently under investigation involves an Icelandic fishing company that allegedly used a bank of a neighbouring country and shell companies in the Pacific to channel bribes to obtain fishing licences in Namibia (Wilhjálmsson 2019).

In the context of ship registration, some corporate entities operating ship registries on behalf of flag states may have obtained the rights to do so corruptly (UNODC 2011). Corruption in the context of monitoring and inspection may occur in the form of fines paid to fisheries authorities without independent review, funds from fines not properly accounted for by the competent authority or bribes paid to reduce penalties (INTERPOL 2014). Bribes may also be paid to enforcement officers or fisheries inspectors (at sea or on land) to ignore illegal harvesting of fish, particularly high-value species such as abalone (UNODC 2019a; UNODC 2017). Bribery is also prevalent in fishing ports where inspectors endorse, for instance, landing data that are clearly false (see, e.g., the rock lobster case above). Bribery may extend throughout the fisheries value chain (UNODC 2017). For

example, in a San Diego court, where a U.S. company was alleged to have illegally brought into the United States approximately \$17 million worth of sea cucumber from Mexico, papers suggested that the U.S. company sent money to Mexico to bribe officials, including law enforcement officers, along the entire supply chain (U.S. Department of Justice 2017; Kaplan-Hallama et al. 2017). Bribes may also be paid to officials to ignore irregular crew work permits, which may be used to facilitate human trafficking for forced labour on fishing vessels (UNODC 2019a).

2.2.3 Tax Crime

Tax crime, also known as tax evasion or tax fraud, is the violation of tax and revenue regulations, including income tax, value added tax, property tax, company tax and other forms of state levies and duties, including customs duties. If the offences are criminalised in law, they amount to tax crime.

Tax crime can be difficult to identify and prove, as not all jurisdictions require transparency regarding the beneficial ownership of bank accounts and companies. These jurisdictions, often labelled 'tax havens' or 'secrecy jurisdictions', perpetuate the grey area between legitimate tax planning and criminal tax evasion (Shaxon 2011; Galaz et al. 2018).

The fisheries sector lends itself to tax crime, including unreported tax, misreported or underreported tax, and tax evasion. In light of the relative ease with which criminals in fisheries can change a vessel's country of origin and identity, and use fictitious companies as registered owners, it would seem that the likelihood of profit-shifting, that is, channelling profit to shell companies in tax havens to avoid paying tax in the country where the profit was generated, is commonplace among these actors (NA-Fig 2017). Mis-invoicing also appears to be widespread in fisheries. Mis-invoicing happens by deliberate falsification of the value, volume and/ or type of commodity in an international commercial transaction of goods or services by at least one party to the transaction (Global Financial Integrity 2019). Facilitated by financial secrecy jurisdictions, mis- invoicing commonly involves disguising the origin of fish, under-declaring the size of a catch and incorrectly describing the species or products caught or sold (OECD 2013).

The Organisation for Economic Co-operation and Development (OECD 2013) estimates that tax revenue lost to tax crime in fisheries is significant, undermining the development benefits of the sector, and notes that it has a particularly adverse impact on developing countries. It was recently estimated that, combined, the potential tax revenue losses due to the likely illicit seafood trade in African and Asian marine resources account for 72 to 74 percent of global tax revenue losses in this trade, amounting to between \$1.6 and \$3.1 billion annually (Sumaila et al. 2020). In Indonesia in 2016, tax crime by 187 fishing companies triggered a comprehensive audit of those companies by the Tax Directorate

General, which found that the fishing companies in question had failed to report or misreported tax amounting to potential unpaid tax revenue of 235 billion Indonesian rupiah (more than \$16 million). The Tax Directorate General used the audit data to pursue enforcement measures and collect the unpaid taxes from the companies.

2.2.4 Money Laundering

Money laundering is defined in the Palermo Convention as the intentional concealing or disguising of the illicit origins of the proceeds of crime (UN 2004a, Article 6). The recommendations of the Financial Action Task Force (FATF 2012-19), an intergovernmental body promoting legislative and regulatory reforms to combat money laundering, terrorist financing and other related threats to the integrity of the international financial system, detail standards of universal application towards its aims, including that all countries designate serious crimes as 'predicate offences' (i.e. offences that are a component of a 'primary' crime) to money laundering. The Egmont Group, a united body of 164 financial intelligence units, provides a platform for the secure exchange of expertise and financial intelligence in support of national efforts to respect international global standards regarding anti-money laundering and counter-financing of terrorism, including those of the FATF. The Egmont Group (2014) has published a set of successfully prosecuted case examples to assist analysts and investigators pursuing money-laundering cases.

Many offences committed by organised crime groups in fisheries will be regarded as serious crimes and thus as predicate offences. A common denominator of organised crime networks operating in the fisheries sector is that they engage in money laundering to integrate into the legitimate economy the proceeds of crimes committed along the fisheries value chain, or the proceeds of their other crimes. They may do so by acquiring large capital assets, such as fishing vessels, or making cash salary payouts to crews of fishing vessels (OECD 2013, 33).

In Indonesia, illegal fishing is expressly cited as a predicate offence under the Prevention and Eradication of Money Laundering (Anti–Money Laundering) Law (Article 2). The law facilitates prosecution of money laundering and asset recovery through a number of criminal procedural tools, including reversal of the burden of proof during prosecution, giving defendants the burden of proving that their assets were not derived from crimes, and express permission of the inclusion of information in electronic form as legal evidence (Husein 2014).

2.2.5 Crime in the Labour Market

The labour market is a large economic sector that attracts organised crime in the form of 'labour market crime'. Such offences may range from breaches of work and safety regula-

tions to fraud, tax evasion, document forgery and deception. In extreme cases, crimes in the labour market include abduction, unlawful confinement, physical injury, culpable homicide, murder and sexual abuse, as well as forced labour and human trafficking. *Forced labour* refers to 'all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily' (ILO 1930, Article 2(1)). In the fishing sector it is often a consequence of human trafficking (ILO 2016) or 'trafficking in persons', which broadly refers to the procuring of and trading in human beings for the purposes of exploitation (UN 2004a, Annex II).

Criminal networks in fisheries use forced labour to significantly cut costs and boost profits (see, e.g., Tickler et al. 2018). The International Labour Organization (ILO 2016) highlights a number of indicators of forced labour in the fishing industry, including abuse of vulnerability, deception, restriction of movement, isolation, physical and sexual violence, intimidation and threats, retention of identity documents, withholding of wages, debt bondage, abusive working and living conditions, and excessive overtime. Facilitating forced labour is the practice of offshore transhipment of crew, which means that crew can stay at sea on different fishing vessels for years at a time without having to dock at port, frustrating detection of victims of trafficking for forced labour and making them de facto prisoners onboard (UNODC 2011).

Forced labour in the fisheries sector appears to be pervasive around the globe. For instance, in 2017 three employees of a Scottish family-owned company operating a fleet of scallop dredgers were arrested following a police raid on one of their vessels in southern England. The company has a track record of non-compliance with maritime safety rules. Nine crew, eight West Africans and one Sri Lankan, were removed from the vessel as victims of trafficking. A police investigation is ongoing (Lawrence and McSweeney 2017).

In the port of Puntarenas, Costa Rica, police rescued 36 Asians who had been subjected to labour exploitation on two fishing boats in 2014. The 15 Vietnamese, 13 Indonesians, 5 Filipinos, 2 Taiwanese and 1 Chinese national said they were forced to work up to 20 hours a day and were regularly flogged. They were underfed and had never been paid. Four individuals from Taiwan and Costa Rica were arrested in connection with the case and were charged with human trafficking (Zueras 2010).

In 2011, the Fiji Labour Department accompanied a Fijian fisher in filing a lawsuit against a fishing company on the basis of abuse endured in 1999 when he was employed on two South Korean fishing vessels. The fisherman had been subjected to a harsh working environment, received insufficient food and endured unhygienic living conditions. He had been forced to work in a refrigerated room at -40oC without gloves or any safety equipment, resulting in frostbite that

required the amputation of his fingers. He told the media that he did not complain about the poor working conditions because he had been afraid of losing his salary (Human Rights at Sea 2019).

Forced labour and human trafficking can also take place in the land-based fishing industry. In 2015, Indonesian authorities discovered 322 migrant fishers from Burma, Cambodia and Laos stranded within the area of a fish factory in the island village of Benjina, part of the Maluku chain. The fishers were all in very bad condition, having been exploited for approximately 10 years without any payment, over which time they had been harassed, overworked (up to 20-22 h per day) and physically abused. They had been smuggled into Indonesia using forged Indonesian identity documents. In March 2016, an Indonesian court sentenced eight people—five Thai citizens and three Indonesians—for involvement in the crime of human trafficking. Each was sentenced to three years' imprisonment and a fine of 160 million rupiah (\$11,300). The court also ordered the fishing company to pay 884 million rupiah (\$62,500) in restitution to the victims of human trafficking.

Recruitment agencies play a central role in smuggling migrant workers to work aboard fishing vessels as victims of human trafficking for forced labour. In 2016, Norwegian authorities identified a foreign network, operating out of the north of Norway, that recruited at least 49 Indonesian fishers, a Spanish national and a number of Ukrainians to crab fisheries in the Barents Sea. Several deaths, serious injuries and threats of violence were reported by the fishers to the Norwegian coast guard and local police, and the coast guard identified very poor living and working conditions onboard the vessels (Dagbladet 2018a; Dagbladet 2018b). The network allegedly used a South Korean operator, a Seychelles recruitment agency and Norwegian port agents to facilitate the movement of the migrant fishers from Indonesia to Norway. Similarly, in 2016, Indonesian authorities learned that about 14 Indonesian victims of forced labour were working as fishers on a Chinese fishing vessel in Dargahan, Iran. The victims were recruited by an Indonesian recruitment agency affiliated with another recruitment agency in Taiwan.

2.2.6 Security Offences at Sea

Various offences occurring at sea present a threat to peace and security; this can include offences falling within the ambit of organised crime in the fisheries sector. 'Fisheries conflicts', which may arise from a combination of factors, including illegal fishing (along with climate change and food security concerns), also pose a potential threat to maritime security (see e.g. Spijkers et al. 2019; Sumaila and Bawumia 2014; Pomeroy et al. 2007). At an international level, the UN Security Council is influential in determining whether threats exist to international peace and security. In 2019, the Security

Council explored transnational organised crime at sea and the threat it poses. Focusing on the Gulf of Guinea, various submissions noted that transnational maritime crime—broadly defined to include organised fisheries crime at sea—not only undermines national social and economic development but also destabilises the region and poses broader security risks (UNSC 2019).

The fisheries sector is also vulnerable to exploitation by terrorists due to vessels' seeming legitimate presence at sea; the lack of transparency as to their movement, identity and ownership; vessels' ability to tranship and access small harbours; and their sometimes erratic movements. For instance, in the 2008 terrorist attack in Mumbai, an Indian fishing trawler was hijacked to transport the terrorists and arms closer to the city (UNODC 2011). A recent Security Council resolution expressed concerns about the links between international terrorism and organised crime, including transnational organised crime at sea (UN Security Council Resolution 2842/2019 (2019).

Piracy, defined in the UN International Law of the Sea (UN 1982, Article 101) as illegal acts of violence or detention for private gain by occupants of one private vessel against another on the high seas or in waters beyond national jurisdiction, has been high on the agenda of the UN Security Council for a number of years. In 2016, the Security Council noted the interface between various types of criminal activities within the maritime domain in the Indian Ocean, highlighting the 'complex relationship' between large-scale illegal fishing in the region and the increasing piracy in Somali waters (UN Security Council Resolution 2316 of 2016 (2016); this relationship is also discussed by, e.g., Devlin et al. 2020; Samatar et al. 2010). A similar link has been argued for in the case of Southeast Asia (Liss 2007). And in 2012, in Senegal, fishers threatened to resort to piracy if the large-scale illegal fishing taking place in the Gulf of Guinea was not halted (Vidal 2012).

Also in the Gulf of Guinea, there is evidence that fishing vessels are being used for illicit trafficking of weapons (Okafor-Yarwood 2020; Beseng 2019; UNODC 2011). In 2018, the Cameroonian navy arrested forty-three people onboard three Nigerian fishing vessels; they were found to be illegally in the country's territorial waters, and automatic weapons, including AK47s, were recovered (Okafor-Yarwood 2020). There are also reports of the involvement of fishing vessels in gun-running elsewhere, including off the African east coast (UN 2003) and in the Caribbean (UNODC and World Bank 2007).

2.2.7 Drug Trafficking

Drug trafficking refers to the illicit trade, involving the cultivation, manufacture, distribution and sale, of substances subject to drug prohibition law (UNODC 2019b).

Fishing vessels are ideal modes of transport for drugs for the same reasons that the sector is vulnerable to security offences at sea. The UNODC 2011 study found that fishing vessels are used in various ways to facilitate illicit trafficking in drugs: as mother ships, that is, as a base station from which smaller vessels traffic drugs to and fro, as support vessels (providing fuel and supplies) for go-fast boats transiting trafficking routes (as is common in the Caribbean) or, for smaller fishing vessels, to traffic drugs directly to and from coastal landing sites in smaller quantities, frequently transhipping drugs to mother ships outside the territorial jurisdiction of the coastal state (UNODC 2011), for example in the Gulf of Guinea (INTERPOL 2014, 29).

In Indonesia, some 90 percent of illicit drugs smuggled in and out of the country are allegedly transported by sea (Indonesian National Narcotics Board 2012; Antara News 2018). In 2018, Indonesian authorities uncovered drug trafficking using four foreign-flagged fishing vessels, one of which was transporting one tonne of methamphetamines to Indonesia. The captain of the vessel produced forged Indonesian fishing permits and failed to present proper certification of competence to captain a fishing vessel, adding to the suspicion that the fishing vessel was merely a vehicle to transport illicit drugs (Antara News 2018). Private ports are frequently used in such trafficking operations. (Indonesian National Narcotics Board 2012).

Drug trafficking using fishing vessels is at times carried out in conjunction with the transport of other illicit goods. In Trinidad and Tobago, for example, Venezuelan gangs, in cooperation with local counterparts, engage artisanal fishing vessels to transport drugs and guns from Venezuela to Trinidad and Tobago. Cocaine transiting Trinidad and Tobago via Venezuela, originating in Colombia and destined for the U.S. market, is also known to travel on artisanal fishing vessels. In Jamaica, fishing canoes engage in a 'drugsfor-guns' trade with neighbouring Haiti, in which local marijuana is exchanged for illegal weapons (U.S. Department of State 2018) and increasingly, also, for cocaine (Neil 2018). In the Gulf of Guinea, in 2006, the fishing merchant vessel Benjamin, flying a Ghanaian flag, trafficked about 78 parcels (2340 kg) of cocaine into Ghana labelled as shrimp (Ali 2015).

Case examples also suggest that fishing companies, fish processing plants and fish distribution networks may act as storage facilities and legitimate covers for the transport of drugs and that some fishing operators launder proceeds from drug trafficking through investments in fishing infrastructure (U.S. Department of Justice 2019; UNODC 2011). Illicit drugs are hidden among or inside deep-frozen fish as the smell impedes the effectiveness of drug detector dogs, and enforcement officers are hesitant to inspect frozen fish, which would necessitate thawing the product (potentially

damaging it and providing grounds for compensation claims should their suspicions prove unfounded) (UNODC 2011). In Mexico, in 2009, authorities intercepted over a tonne of cocaine concealed inside shark carcasses. The smugglers claimed that the drugs were 'preserving agents' (Emmort 2009).

In some cases there is evidence of a close connection between high-value species and drug trafficking networks. Off the west coast of South Africa, evidence suggests that abalone poached by divers is bartered with middlemen from local gangs involved in the drug trade for the ingredients to manufacture the synthetic drug 'Mandrax' (an addictive barbiturate-like sedative used in the poorer communities). These activities appear to be part of organised criminal networks involved in the black market export trade of abalone to East Asia (de Greef and Raemaekers 2014; Steinberg 2005). In Mexico, the high returns from the illegally harvested Totoaba bladders ('maws'), which are exported to China and whose price can reach US \$15,000 per kilogram straight off of the boat and up to \$150,000 per kilogram on the international market, have attracted the involvement of organised crime groups (mostly Mexican and Chinese) who operate criminal enterprises and networks with links to drug cartels, corrupt officials and institutions (e.g. law enforcement and border control), as well as human trafficking networks, which control the supply chain and allow the products to reach markets (Alvarado Martínez and Martínez 2018; Crosta et al. 2018).

In Colombia, enforcement has traditionally focused on addressing drug trafficking in the ocean domain through inter-agency cooperation. Authorities have found that crime in the fisheries sector manifests in a range of interrelated offences, including trafficking of illegal drugs and arms, human trafficking, smuggling of fuel and other contraband, large-scale illegal fishing, and wildlife trafficking. A task force against drug trafficking in the Caribbean (no. 73 'Neptune'), under the command of the Colombian navy (command post in the Gulf of Urabá), has been mandated to help restore security in the maritime and coastal area (Colombian National Navy 2015). Coordinated operations by the national police, navy and air force (such as the Agamenón II campaign in 2015) resulted in 2782 arrests and the seizure of 887 firearms and 360.4 tonnes of cocaine during the years 2015-2018.

2.2.8 Smuggling, in Particular of Fuel

Smuggling, that is, the movement of otherwise legal goods from one jurisdiction to another in violation of the law, is often engaged in to avoid customs or other duties. The fishing industry provides ideal cover for smuggling given the vast ocean domain within which it operates and the associated law enforcement challenges.

Fishing vessels and fishers, for example, are known to be involved in fuel smuggling worldwide. In Ecuador, artisanal fishers routinely use their fishing vessels to smuggle small quantities of subsidised Ecuadorian fuel to the neighbouring coast of Colombia, where it can be sold at considerable profit (Ralby 2018). Trinidad and Tobago fishing vessels have also been implicated in the illegal trade of fuel. Prior to the 2017– 18 government reforms, subsidised diesel and regular fuel were sold to foreign vessels (reportedly flagged to Guyana, Suriname and Venezuela) by local coastal communities and from fishing vessels at sea. When the Trinidad and Tobago government discontinued the subsidy and the provision of regular gasoline to the domestic market, local fishers began to purchase fuel illegally for one-sixth of the domestic price from Venezuelan vessels in Trinidad and Tobago waters. Ghana has also seen an exponential rise in fishing vessels and canoes involved in fuel smuggling. The country is reported to be at risk of losing about 1.5 billion Ghanaian cedi (\$300 million) in revenue to the smuggling of fuel, much of it trafficked by fishing vessels and canoes (Banaseh 2017). Fuel is also known to be smuggled alongside illicit goods, such as drugs, illegal weapons and illegally harvested fish, as well as migrants (Ralby 2018).

2.2.9 Migrant Smuggling

Broadly understood, *migrant smuggling* refers to helping a migrant enter a country illegally in exchange for a (direct or indirect) financial or material benefit (UN 2004a, Annex III, Article 3(a)).

The use of fishing vessels to smuggle migrants is alleged to be prevalent. Although it is not well documented formally, public media reports on the use of fishing vessels in migrant smuggling are widespread (e.g. EURONEWS 2019; Grey and Ismail 2016). In the Caribbean, fishing vessels, mainly from the artisanal sector, have for the past 10 years been increasingly used to traffic migrant women, in particular from mainland South America, to Trinidad and Tobago. Some are forced into prostitution in Trinidad and Tobago, while others are transited to the United States (The Guardian 2019). There are also indications that fishing vessels are involved in migrant smuggling in the Mediterranean (Dambach 2019; UN 2019, para. 8; UNODC 2011), Australia (Lindley et al. 2018) and Thailand (Lefevre 2014).

2.2.10 Fisheries Offences

Marine fisheries are regulated by national fisheries management laws and subject to multilateral treaties, the international law of the sea and management measures established by regional fisheries management bodies. *Illegal fishing* refers to fishing in violation of domestic fisheries laws and measures and can take various forms, including fishing without the requisite licence or permit in a coastal state's exclu-

sive economic zone, engaging in transhipment contrary to coastal or flag state law, harvesting beyond an assigned legal quota and fishing for legally protected species. Many illegal fishing activities occur at sea, where they are subject to a complex jurisdictional regime dependent primarily on the maritime zone in which the vessel is located as well as the nationality (flag) of the vessel and, to a lesser extent, of its owner and crew.

An illegal fishing activity may also be a criminal offence if the activity in question is criminalised under the law in the relevant domestic jurisdiction. A recent study of fisheries legislation in 91 countries conducted by the Food and Agriculture Organization of the United Nations (FAO) suggests that more than half of these countries have both criminal and administrative penalties for the violation of fisheries rules, and nearly a quarter have criminal penalties only (FAO 2019). A little more than a quarter of the countries have administrative penalties alone, of which the largest proportion are in Europe. Some jurisdictions impose severe criminal penalties for fisheries offences. In Norway, for instance, the Marine Resources Act provides for prison sentences of up to six years, in addition to asset forfeiture, for particularly grave offences. When considering whether an offence is grave, the act requests that the court consider the monetary value of the offence and whether the offence was committed systematically and over time, was transnational or was part of organised activities (Norwegian Marine Resources Act, Article 64).

In practice, illegal fishing, along with unregulated and unreported fishing (referred to cumulatively as IUU fishing), is frequently associated with other types of criminal offences along the fisheries value chain (particularly fraud) (de Coning 2016). INTERPOL therefore takes the view that, regardless of whether or not illegal fishing has been criminalised in a jurisdiction, IUU fishing is a strong risk indicator of fisheries crime (INTERPOL 2018).

2.3 The Impact of Organised Crime in Fisheries on the Sustainable Ocean Economy

The pursuit of a sustainable ocean economy requires balancing use of the ocean space and its resources, on the one hand, with the long-term carrying capacity of the ocean's ecosystems, on the other (Kraemer 2017).

In line with the three-pillared concept of sustainable development under the Rio process, a sustainable ocean economy is premised on the economically, socially and environmentally sustainable use of the ocean (UN 2012). Agenda 2030 extends the three dimensions of sustainability to five areas of critical importance—people, prosperity, peace,

partnership and planet— which should inform synergised inter-agency policy interventions towards achievement of the Sustainable Development Goals (SDGs) (UN General Assembly Resolution 2015).

Organised crime in the fisheries sector could severely undermine states' ambitions to achieve the SDGs. Given the multifaceted and far-reaching implications of organised crime in fisheries, addressing this problem is relevant to the achievement of a range of SDGs, including SDG 2 ('zero hunger'), 8 ('decent work and economic growth'), 12 ('responsible consumption and production') and 14 ('life below water'). SDG 16 ('peace, justice and strong institutions') is regarded as a core enabler of the other SDGs (Kercher 2018), and the targets in SDG 16, including on promoting the rule of law (16.3), reducing illicit financial and arms flows and organised crime (16.4), reducing corruption and bribery (16.5) and developing effective, accountable and transparent institutions (16.6), are particularly resonant in the context of addressing various manifestations of organised crime in fisheries (Kercher 2018).

There are ample illustrative examples highlighting how organised crime in the fisheries sector may undermine the global commitment to sustainable development and to a sustainable ocean economy in particular. Examples of the adverse economic, social and environmental impacts of organised crime in fisheries on the pursuit of a sustainable ocean economy are provided below. These examples underscore the cross-cutting nature of fisheries crime offences and the range of their complex adverse impacts on communities.

2.3.1 Social Impacts

Organised crime in the fisheries sector can have a negative impact on the affected coastal state and its population by, amongst others, undermining the rule of law, threatening peace and security, jeopardising food security and adversely impacting fishing communities.

Peace and Security

Regional and international peace and security is threatened by a range of organised criminal activities in the Gulf of Guinea (UNSC 2019). This encompasses piracy and armed robbery at sea, other violent crimes including ship hijackings, incidents involving 'firing on boats', hostage-taking and kidnapping for ransom, fuel and gas robbery and smuggling, drug and arms trafficking, illegal fishing and maritime terrorism (UNSC 2019). These criminal activities also seriously undermine the ability of the states in the region to pursue socio-economic development. Criminal activities have prompted increased insurance premiums for cargo vessels using the maritime space, which, in turn, impedes trade, hindering the movement of goods and services, and resulting in

lost income for businesses and governments and higher prices for fuel, food and other goods for consumers (Chatham House 2013; Gilpin 2007; One Earth Future 2018).

In the Caribbean countries of Jamaica and Trinidad and Tobago, transnational networks using fishing vessels to facilitate drug and arms trafficking, as well as migrant smuggling, are known to cooperate with local criminal groups (UNODC and World Bank 2007; regarding Jamaica specifically, see Witbooi 2020; for Trinidad and Tobago, see Bassant 2019). This contributes to a rise in national violent crime, brings illicit drugs into coastal communities and fuels local criminal gang activities, such as fraud and extortion (Leslie 2010; Government of Jamaica 2007). In South Africa, organised criminal networks involved in the illegal harvesting and export of high-value coastal species, such as west and south coast rock lobster and abalone, and the associated illicit money flows and interface with drug trafficking, weaken governance and the rule of law. In Russia, authorities have warned about the association of the 'crab mafia' (Akhmirova 2012) with assassinations of high-ranking public officials and competitors, as well as money laundering and illegal fishing (Otto 2014). Russia has taken a number of strong measures in an attempt to bring organised crime in the crab fisheries under control (Akhmirova 2012).

Food Security

Fisheries resources are a major source of protein globally, providing an estimated 17 percent of animal protein consumed worldwide, with the highest per capita consumption in small island developing states (FAO 2018). According to the UN Special Rapporteur on the Right to Food, it is imperative to curtail illegal fishing to prevent its further adverse impact on food security and coastal livelihoods (UNGA 2012).

In the West African region of the Gulf of Guinea, for example, fish is the predominant (and sometimes only) source of animal protein consumed by the roughly 40 percent of the population that resides in coastal communities (Okafor-Yarwood 2019). In Sierra Leone, one of the poorest countries in the world (UNDP 2018), fish provides an estimated 75 percent of the animal protein consumed by the population (Agnew et al. 2010), highlighting the inseparability of fish from the country's food security. This is well illustrated by the role fish played during the Ebola crisis, when it became a substitute for infected bush meat (USAID 2016). For coastal communities, such as those in Nigeria's Niger Delta area, fishing also provides basic income to pay for social services, including medical care and education, that are not provided by the Nigerian state (Okafor-Yarwood 2020; 2019).

Large-scale overfishing in Jamaica has left most reef fish stocks overexploited (World Bank 2017). As a result, Jamaica is almost entirely dependent on imported fish for domestic consumption. According to 2014 data, 79 percent of all fish-

ery products consumed in Jamaica were imported (World Bank 2017). The value of fish imports for food in Jamaica in 2015 was \$103.8 million (CRFM 2018).

Criminality In Fishing Communities

Organised crime in fisheries can shape criminality in fishing communities in a number of ways. With few livelihood options beyond fishing, coastal communities are particularly vulnerable to recruitment by criminal networks operating in the fisheries sector.

In the Gulf of California in Mexico, research indicates that the government's incomplete implementation of 2002 environmental management regulations (Alvarado Martínez and Martínez 2018; Santos-Fita 2018) has contributed to the tendency of fishers—adversely affected by these conservation efforts—to turn to totoaba poaching due to lack of legitimate alternative livelihoods (Alvarado Martínez and Martínez 2018; Crosta et al. 2018).

On the South African coast, overexploitation of west coast rock lobster (WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others 2018) has impacted thousands of subsistence fishers who traditionally harvested the species. No longer able to catch enough to sustain themselves, fishers have been forced to seek alternative, sometimes illegal, ways of generating income (Cochrane 2017). In Nigeria, evidence suggests that coastal fishers, who fear putting out to sea due to frequent violent attacks from illegal fishing vessels, are susceptible to recruitment by organised criminal networks engaging in armed robbery at sea and oil smuggling (Okafor-Yarwood 2020).

Moreover, many coastal communities are transformed by organised crime and the illicit goods and associated economies of violence it brings. Trinidad and Tobago has seen a rise in violent crime nationwide, but particularly in coastal areas not traditionally known for gang activities (such as Moruga, Claxton Bay, Carli Bay and Orange Valley). This has disrupted daily life and, in some instances, separated families as parents send children to live with family members in safer areas. In Jamaica, research indicates that violent gang-related activity is increasingly commonplace in small fishing towns, such as Rocky Point, caught in the drugs-forguns trade (Witbooi 2020; Robinson 2017; Fisher 2016). In South Africa, remote coastal communities are under siege by organised criminal gangs illegally accessing abalone off their shores (Isaacs and Witbooi 2019; de Greef and Raemaekers 2014).

Organised crime in the fisheries sector also has noticeable gendered implications. In South Africa, women in female-headed households have become accomplices to organised poaching operations, washing divers' wetsuits and storing their illegally harvested abalone in their refrigerators to earn money for basic necessities, subjecting them to criminal prosecution

(Isaacs and Witbooi 2019). In Nigeria, where the combined effect of illegal fishing, climate change and pollution from oil companies threatens the livelihoods of coastal fishing communities, fishmongers—who are predominantly women—have in some instances been forced into prostitution to make ends meet (Okafor-Yarwood 2020, 2018), worsening the region's already high prevalence of HIV/AIDS (Okonko and Nnodim 2015; Udoh et al. 2009). In Mexico, the rapid growth of the illegal sea cucumber fishery on the Yucatán Peninsula, triggered by rising international demand, has driven dramatic social and ecological changes in the community of Río Lagartos (Kaplan-Hallama et al. 2017). In addition to creating new pressures on local environmental resources, the 'gold-rush' influx of new actors has weakened the community's social cohesion and sense of security, and fishers from outside the area have been associated with rising levels of local violence, prostitution and drug use (Kaplan-Hallama et al. 2017).

Given communities' central role in the supply chain of organised criminal networks, it may be useful to complement the law enforcement response with an approach that enables the community to play a preventative role (Isaacs and Witbooi 2019; Hübschle and Shearing 2018, 5; Hauck and Sweijd 1999). Communities can build their resistance to the infiltration of organised crime by strengthening their resilience (Felix 2017).

Women, who often hold powerful positions in fishing communities (albeit often unrecognised; see Matthews et al. 2012), can be prominent actors in this effort. This could be the case, for example, in Rocky Point, Jamaica, where women are the primary owners and managers of key community fishing assets (Livelihoods Report 2012).

2.3.2 Economic Impacts

Costs to Coastal States

Organised crime in fisheries can severely compromise the revenue base of coastal states. For instance, in the Gulf of Guinea large-scale illegal fishing is estimated to amount to 40–65 percent of the reported catch (Doumbouya et al. 2017; Agnew et al. 2009): the combined annual economic cost of large-scale illegal fishing to the Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone is estimated to be \$2.3 billion (Doumbouya et al. 2017; Ali 2015). In Guinea- Bissau alone, more than half of the industrial catch landed, valued at \$260.7 million, is caught illegally. Only a third of the remaining catch is captured by the local economy through fishing fees and access agreements (Intchama et al. 2018, 9). Facing a similar predicament, Indonesia introduced a comprehensive and bold law enforcement and policy reform against fisheries crime. The reform has spurred national economic development and resulted in an increase of fish stocks from 7.31 million tonnes in 2014 to 9.93 million tonnes in 2015 and 12.54 million tonnes in 2016 (MMFA 2018, 23; Cabral et al. 2018). Catch landings by local coastal fishermen have also risen, and the resulting increase in their purchasing power has driven the economic growth of local fisheries. The reforms contributed to significantly improved tax revenue from the fisheries sector in 2018, amounting to 1.6 trillion rupiah (\$113 million) (Indonesian Ministry of Finance 2019).

Piracy and armed robbery at sea also have noticeably reduced revenue generated by the fisheries sector in the Gulf of Guinea. In Nigeria, for instance, such crime has led to a drop in the number of licenced fee-paying industrial fishing vessels operating in local waters, thereby weakening the sector's contribution to gross domestic product (Okafor-Yarwood 2020). This echos past impacts: in 2008, in response to safety concerns, the Nigerian Trawler Owners Association recalled about 200 local fishing vessels to shore, impacting approximately 20,000 jobs and leading seafood prices to more than double (Onuoha 2012).

At an international level, a 2020 report indicates gross revenues of between \$8.9 billion and \$17.2 billion are annually redirected out of the legitimate market through illicit trade. Asia, Africa and South America account for approximately 85 percent of total catch losses to likely illicit trade globally. Africa is estimated to experience annual losses of between \$7.6 billion and \$13.9 billion and between \$1.8 billion and \$3.3 billion in economic and income impacts, respectively, due to the redirection of catches from legitimate to illicit seafood trade (Sumaila et al. 2020).

Costs to the Legitimate Industry

Legitimate businesses are burdened with the negative economic impacts of organised crime in fisheries.

Networks engaged in organised crime can significantly cut their costs and launder illicit gains, giving them an unfair advantage over legal operators, whom they can effectively push out of business. Russian authorities have warned against foreign companies taking control of local fishing companies and undercutting resident competitors (Krivoshapko 2017). In the north of Norway, the introduction of underpaid migrant workers in the foreign-flagged snow crab fleet led some Norwegian- registered snow crab companies to employ their own vulnerable migrants in violation of national crewing regulations (Dagbladet 2018a; Fenstadt and Kvile 2016).

Organised crime in the fisheries sector damages the reputation of the legitimate industry and fishing nations.

An example is the document fraud around shark fin exports in the Trinidad and Tobago fishing industry, as mentioned above. In a further example, in 2014 Trinidad and Tobago was cited by the Commission for the Conservation of Antarctic Marine Living Resources for trading in Patagonian toothfish, contrary to the region's fisheries management

agreement. It was subsequently discovered that the trade documents attached to the Patagonian toothfish exports to Canada indicating Trinidad and Tobago as the country of origin were fraudulent (Republic of Trinidad and Tobago, Fisheries Division 2019).

Businesses outside the fishing industry may also be harmed by the rise in crime. In Jamaica violent crime, fuelled by the maritime smuggling of guns into the country, has led to a loss of business productivity (due to resulting death and injuries) and weakened investor confidence (Leslie 2010). In Trinidad and Tobago, the influx of drugs and illegal weapons by sea has led to reduced production and increased expense for security, with 85 percent of businesses spending the highest portion of their budgets on increased security in recent years (Sutton 2017). These effects are interwoven with the social impacts of organised crime in fisheries, outlined in the section above.

2.3.3 Environmental Impacts

Impact on Fish Stocks

Organised crime in the fisheries sector in the form of largescale overfishing has been shown to sharply reduce commercially exploitable fish stocks. In 2009, a group of British and Canadian researchers published an estimate of the worldwide extent of illegal fishing between 2000 and 2003. They found that 18 percent of the global catch, valued at between \$10 billion and \$23.5 billion, was lost to either illegal or unreported fishing during this period (Agnew et al. 2009). An updated 2011–2014 estimate suggests that annual illegal and unreported marine fishing generates \$15.5 billion to \$36.4 billion in illicit profits (Global Financial Integrity 2017). A recent global study (Sumaila et al. 2020) estimates that between 7.7 and 14.0 million metric tonnes of unreported fish catches are potentially traded illicitly each year. Latest FAO figs. (2015 data) estimate that some 59.9 percent of the world's commercial fish stocks are now fully fished, with about a third of global fish stock overexploited (FAO 2018). As fish stocks decline, the resource becomes more valuable, which, in turn, attracts increasing involvement by transnational organised crime syndicates in the fisheries sector (UNDOC 2011).

Effective law enforcement resulting in successful prosecution of organised crime in the fisheries sector can dramatically strengthen the targeted stocks. An illustrative example is the rock lobster case described earlier. The successful prosecution of the criminal network involved contributed to the dramatic recovery of the south coast rock lobster.

Catch rates of the fishery, which had been subject to government regulation since the mid-1970s, declined by 5–10 percent per year from 1984 to 2000 despite the introduction of a total allowable catch in 1984. This was the period during

which the criminal network operated. Following the arrest and prosecution of those involved, five consecutive years of increased catch rates were recorded between 2000–2001 and 2004–2005 (Johnston and Butterworth 2017).

Impact on the Marine Environment

Organised crime in fisheries can also harm the marine environment and associated ecosystems. In Nigeria, local fishers struggling to sustain their livelihoods are known to fish illegally near oil pipeline installations, which risks causing oil leaks and marine pollution (Okafor-Yarwood 2020, 2018). Piracy and armed robbery at sea in the broader Gulf of Guinea region can also lead to oil or chemical spills, through the use of weapons like rocket-propelled grenades to attack vessels and in the transfer of the targeted ship's cargo (IMB 2013). The use of gill nets in the illegal totoaba trade in Mexico has not only brought the vaquita porpoise, which is caught as by-catch, to the brink of extinction but has resulted in severe damage to the larger marine ecosystem of the Upper Gulf of California (Alvarado Martínez and Martínez 2018). Illegal dynamite (or 'blast') fishing, associated with explosives trafficking, off the Tanzanian coast is highly destructive to the marine habitat, including coral reefs, and reduces fish stocks, which has broader food security ramifications (IOC and FAO 2015; Galbraith 2015).

2.4 Addressing Organised Crime in Fisheries

2.4.1 Challenges

Globally, jurisdictions face a number of law enforcement challenges in identifying, investigating and successfully prosecuting organised crime in fisheries. Many of these are outlined in reports and outcome documents from expert group meetings and the International Symposiums on Fisheries Crime (e.g. CCPCJ 2017, 2016; UNODC 2017), underscoring the necessity of effective criminal law enforcement in addressing fisheries crime throughout the value chain. The 2017 report *Chasing Red Herrings* (NA-Fig 2017) highlights particular enforcement challenges arising from secrecy and the use of flags of convenience in the fishing industry.

Law enforcement faces a number of challenges in addressing organised crime in the fisheries sector:

• Low national prioritisation of organised crime in fisheries at political and operational levels. Law enforcement officers around the world have noted that limited budget and resources lead law enforcement agencies to prioritise investigation of cases perceived as important. The result is that '[i] n many countries, crime linked to the

- fisheries value chain will not be investigated because it is not seen as a major priority and it is difficult to investigate' (UNODC 2017, 28).
- Lack of coordination between government departments and agencies nationally, regionally and transnationally. Due to the global nature of the fishing industry, key actors are scattered across various jurisdictions, with those ultimately responsible for, and benefitting from, criminal activities often in different states from those where the activities are taking place. This can make it unclear which state has jurisdiction to prosecute the offences in question. Without a high degree of information-sharing and cooperation between law enforcement authorities, in particular cross-border mutual legal assistance (MLA), successful prosecution of fisheries crime is very difficult (UNODC 2017, 28–29; NA-Fig 2017, 66).
- Inadequate criminal and criminal procedural legislative frameworks. The failure to criminalise fisheries crime at the national level can make it impossible to investigate and prosecute fisheries crime effectively, a problem emphasised in numerous reports and outcome documents (e.g. NA-Fig 2017, 66; UNODC 2017, 14).
- Lack of clarity of jurisdiction at sea and extraterritorial jurisdiction. Most states have not adequately criminalised offences committed by their nationals onboard foreign fishing vessels at sea or passed legislation regarding offences onboard stateless vessels. The result is that fisheries crime at sea (beyond national waters) is often not investigated or prosecuted (NA-Fig 2017, 66).
- Lack of at-sea enforcement. Effective at-sea surveillance by patrol boats requires considerable infrastructure and resources to maintain effective control in large and often distant marine areas (UNODC 2011, 131). Many states that rely heavily on the fisheries sector have very limited maritime law enforcement capability; this is particularly true in the Global South.
- Lack of law enforcement agency and criminal justice capacity, particularly around financial investigations. Law enforcement officials may have insufficient capacity to identify various forms of fisheries crime and to subsequently investigate and successfully prosecute the offences. They may also lack the technical skills necessary to pursue financial investigations (UNODC 2011, 138; CCPCJ 2017, paras. 6, 23; UNODC 2019a, 49).
- Lack of transparency in the fisheries sector and the financial sector. The lack of accurate information about beneficial ownership of vessels and legal entities operating in the fishing sector, unreliable and out-of-date information on vessels' identities and global movements, including in relation to at-sea transhipments, and the use of flags of convenience frustrate investigations of

organised fisheries crime (UNODC 2011, 132, 137; CCPCJ 2017, para. 12; NA-Fig 2017). The ability of criminal networks to easily invest, disguise and launder the proceeds of their crimes in financial secrecy jurisdictions throughout the world, especially through the use of corporate structures like anonymous shell companies and tax havens, hampers investigators' ability to 'follow the money' and recover the proceeds of the crime and secure restitution (UNODC 2011; NA-Fig 2017).

2.4.2 Promising Practices

State administrations have numerous tools at their disposal to address organised crime. If employed correctly, these tools can significantly reduce the overall occurrence of organised crime. The complexity of organised crime in fisheries, the potential harm it may cause and the resources needed to combat it all suggest that any strategy should stress crime prevention. In this regard, identifying socio-economic drivers of criminal activities is key, as are crime disruption strategies and robust legislative frameworks that criminalise serious offences and attach sufficiently deterrent penalties. At the same time, where criminal networks have manifested themselves, it is important to identify effective means to address them, underpinned by robust cooperative criminal law enforcement and criminal procedural efforts.

FAO (2014) has acknowledged that 'the realities of corruption and organised crime [in fisheries] . . . need to be addressed through supplementary means extending beyond the realm of fisheries control and enforcement'. Legal tools developed to improve compliance in fisheries management should thus be seen as complementing a criminal justice enforcement approach to tackle criminal networks in the fishing sector. Evidence shows that the enforcement approach to 'prevent and control' organised crime cannot rely on the use of administrative sanctions alone, because criminals are able to absorb such penalties as part of their costs of doing business. For example, criminal operators select jurisdictions with low penalties, or totally avoid penalties by flying the flag of a state unable or unwilling to impose them. Likewise, the potential costs associated with vessel's being seized can be minimised by running a fleet of low-value vessels (de Coning 2016).

The following paragraphs detail five promising practices in addressing fisheries crime.

National-Level Inter-Agency Cooperation

The multitude of offences falling under the umbrella of 'fisheries crime' necessitates cooperation among a range of government agencies to identify, investigate and prosecute members of criminal networks. Various countries have introduced different types of cooperative enforcement models to address organised crime in fisheries.

Thailand employs a multidisciplinary approach to vessel inspections at the country's 31 'port-in, port-out' control centres to verify compliance with fishing and labour regulations. The teams include representatives from a range of agencies, including the Department of Fisheries; the Marine Department; the Department of Labour, Protection and Welfare; the Department of Employment; the Royal Thai Navy and the Marine Police. Most recently, a flying inspection team was added to increase the effectiveness of the control centres (MFA 2018).

In Indonesia, the Task Force to Combat Illegal Fishing (Task Force 115), established by presidential regulation, is a model of an integrated criminal justice mechanism to improve coordinated enforcement in combatting illegal fishing and fisheries crime cases with transnational organised elements. It operates as a 'single-roof' enforcement agency bringing together five enforcement agencies—the Ministry of Marine Affairs and Fisheries, the Navy, the Marine Police, the Coast Guard, and the Attorney General's Office—under the auspices of the Ministry of Marine Affairs and Fisheries. Task Force 115 undertakes a range of activities to ensure effective enforcement in fisheries, including case monitoring, management and assistance. Malaysia is currently also moving towards introducing a similar 'one-roof' enforcement agency to address maritime crime.

Norway established the Norwegian National Advisory Group on Fisheries Crime and IUU Fishing (Fiskeriforvaltningens Analysenettverk) in 2008. All relevant agencies, including the Coast Guard, the police, as well as fisheries, maritime, tax, customs and labour authorities meet regularly to discuss common cases.

The secretariat of the advisory group is housed in the Ministry of Trade, Industry and Fisheries and is involved in law and policy development on fisheries crime.

In Tanzania, the Multi-agency Task Team on environmental and wildlife crime (MATT) was launched in 2015. The MATT is led by the Ministry of Home Affairs and includes the Ministries of Livestock and Fisheries Development, the Ministry of Energy and Minerals, the Ministry of Natural Resources and the Tanzanian Police Force. Aimed at coordinating efforts and resources, the MATT targets individuals and criminal networks that control environmental and fisheries crime in the region and the illegal trade in wildlife (IOC and FAO 2015).

Regional and Global Cross-Border Cooperation

Regional and global cooperation also plays a vital role in enhancing the investigation of organised crime in fisheries, including through the use of MLA, INTERPOL tools and judicial requests to cooperate with other countries. Countries such as Indonesia and South Africa have used these tools to uncover cases of transnational organised crime in fisheries, and to facilitate prosecution of the offenders. Example cases

highlighting the value of this collaboration include those of the *STS-50* and *Viking*, in which Indonesia invited a multilateral team of experts and INTERPOL to help facilitate information-sharing, analyses and possible prosecution of the offenders in various jurisdictions.

Law Reform

A number of jurisdictions have criminalised fisheries offences and attached deterrent penalties to facilitate engagement of the criminal law enforcement track and frustrate criminal operators' ability to factor fines into the cost of doing business. For example, the Ghanaian courts may, in certain circumstances, impose a maximum penalty of two years' imprisonment for the illegal export of fish under the terms of the 2002 Fisheries Act, and in South Africa violations of almost all the provisions of the 1998 Marine Living Resources Act amount to a criminal offence and are punishable by a fine of up to five million rand (\$338,000). Norway follows a similar approach.

The criminalisation of other offences falling under the fisheries crime umbrella, along with sufficiently severe sanctions, including against corporations, has been implemented by various jurisdictions. Indonesian Law 25/2003 on the Crime of Money Laundering obliges banks and financial service providers to make information on suspicious financial transactions available based on which law enforcement officers have the power to request that the bank freeze the accounts of suspected money-laundering criminals (Husein 2014). Also particularly valuable is the enactment of organised crime legislation, such as South Africa's 1998 Prevention of Organised Crime Act, which criminalises racketeering and triggers asset forfeiture. The act is successfully employed in the prosecution of organised crime networks engaged in abalone trafficking. Legal measures to increase transparency in the fisheries sector are also valuable as they may facilitate identification and investigation of organised crime in the sector. In Taiwan, for example, the 2016 Act to Govern Investment in the Operation of Foreign-Flag Fishing Vessels aims at regulating Taiwanese nationals' involvement in the operation of foreign-flagged fishing vessels beyond national waters.

As cases of human rights abuse on fishing vessels increasingly come to light, various countries have introduced legislation to protect against these abuses, following the adoption of the ILO Work in Fishing Convention No. 188. Indonesia introduced regulations based on the three-pillared Ruggie Guiding Principles on Business and Human Rights (UN OHCHR 2011) implementing a certification system obliging Indonesian fishing companies and fishing vessels to protect fishers' human rights. In February 2019, Thailand also ratified the ILO Work in Fishing Convention No. 188 and is seeking to amending existing laws to comply with regulations on protecting workers onboard fishing vessels (Tavornmas 2019).

Capacity-Building and Skills Training in Criminal Justice Systems

Capacity-building activities are deemed important to broaden the knowledge and hone the skills of investigators and prosecutors in enforcement efforts against organised crime in the fisheries sector. Both Indonesia and Norway offer professional accredited training to strengthen the law enforcement capacity to detect and punish crimes throughout the fisheries value chain. The International FishFORCE Academy of Indonesia, at the Jakarta Centre for Law Enforcement facility in Semarang, was established in December 2016, while the Norwegian Police University College (2019) has offered modules on fisheries crime investigation to Norwegian law enforcement agencies since 2010. Particular emphasis should be given to enhancing the capacity to conduct financial investigations parallel to investigating the underlying offence where significant amounts of money are involved (UNODC 2019a).

Sensitisation of judges to cases of organised crime in the fisheries sector is also recognised as valuable. Most recently, in 2020, the Norwegian government launched the Blue Justice Initiative, which includes a focus on the capacity-building needs of developing countries to address organised crime in the fisheries sector (Blue Justice 2020).

Awareness-Raising

Given the transnational nature of organised crime in fisheries, the technical expertise of law enforcement agencies must be augmented by strong international networks built to enhance the timely and accurate gathering of information, as well as intelligence-led law enforcement efforts. International government organisations, such as UNODC and the INTERPOL Fisheries Crime Working Group, facilitate this, as do international processes such as the International Symposiums on Fisheries Crime (FishCRIME Symposiums), which, as of 2020, will be superseded by the Global Blue Justice Conferences.

Awareness of organised crime in the sector must also be raised among legitimate fishing businesses in order to minimise opportunities for criminal activities along the industry's retail and value chains. Case examples exposed in the media have helped increase public demand for improved sustainability and transparency of seafood production practice. For example, in 2014 The Guardian reported on an investigation that found that the world's largest Thailand-based prawn farmer was purchasing fishmeal to feed its prawns from some suppliers that owned, operated or bought from fishing vessels engaged in human trafficking for forced labour. These prawns were sold to the public in four of the world's top retailers (The Guardian 2014), raising questions about these businesses' ethical standards. Corporate social responsibility (CSR) as an umbrella term refers to the commitment of businesses to recognise their responsibility for the behaviour of their business partners (i.e. within their value chains) and for their impact on society and the natural environment (Blowfield and Frynas 2005, 503). An increased focus on CSR in the fishing industry could give fishing companies a tool to engage in activities that respond to civil society pressure in this regard (Packer et al. 2019). Civil society, in turn, can play a role in both influencing the substantive content of CSR practices and holding companies accountable for their implementation.

3 Concluding Thoughts

In reviewing relevant literature, international cases, reports and expert insights in order to produce this Blue Paper, the authors found ample anecdotal, scientific and case-based evidence of the many manifestations of organised crime in the fisheries sector and its multi-faceted negative impacts on society at large.

The paper shows that organised crime in the fisheries sector is widespread in the sense that it is not restricted to specific geographical locations but rather is found globally. That said, criminals will tend to seek out the world's most vulnerable regions as sites for their activities, and fisheries crime thus appears to most harm the coastal populations of states with the least resources to prevent and combat it.

There is, however, a knowledge deficit with regards to the scale of organised crime in the fisheries sector. To date no statistical data are publicly available estimating the extent of organised crime in the fisheries sector or mapping incidents of its location at a global level. Existing scientific output and data on criminality in the fisheries sector speak almost exclusively to illegal or unreported fishing, which does not take into account the range of criminal offences that occur throughout the fisheries value chain. Greater scientific and criminological knowledge is needed of the dynamics and scale of organised fisheries crime and the networks involved therein in order to identify, evaluate and implement the best measures to address the drivers of such crime.

As outlined in this Blue Paper, organised crime in the fisheries sector has the potential to severely undermine the premises for a sustainable ocean economy, with notable adverse social, economic and environmental implications. The problem is recognised as sufficiently severe to warrant states' mobilisation to take political action. The rate at which support of the Copenhagen Declaration is gaining momentum, particularly among states from the Global South, attests to states' increasing acknowledgement of the existence, extent and adverse impacts of organised crime in the fisheries sector. Further, states acknowledge that a failure to effectively address such crime will result in a wide-

spread inability to meet SDG 16, among others, and ultimately to create a sustainable ocean economy. A next important step will be for states supporting the Copenhagen Declaration to identify practical measures to implement their political commitments.

This Blue Paper highlights the complexity of the underlying problem and suggests a number of 'opportunities for action' for states to address organised crime in fisheries. These suggestions confirm that an approach rooted in fisheries management alone cannot adequately respond to the criminal challenges identified in the fisheries sector. Also essential is the application of an intelligence-led, skills-based cooperative law enforcement response at a domestic level that is facilitated by enabling legal frameworks and increased transparency in the fisheries governance sector and associated financial systems at the global level.

4 Opportunities for Action

The UN General Assembly has noted with concern the existence of possible connections between international organised crime and illegal fishing and urged states to better understand the causes and methods of, and contributing factors to, these connections, bearing in mind the distinct legal regimes and remedies under international law applicable to illegal fishing and international organised crime (UNGA Resolution 63/112).

States have acted on the General Assembly's request, engaging in and supporting a number of initiatives aimed at increasing the knowledge base and understanding of the possible connections between organised crime and illegal fishing. These initiatives' findings, which are publicly available, reflect the General Assembly's instructions to respect the two distinct legal regimes that govern IUU fishing and transnational organised crime, respectively, according to the mandates of the corresponding two UN agencies, namey, the FAO and the UNODC.

Yet, with notable exceptions, the world community remains largely uninformed of the evidence, or even existence, of transnational organised crime in the global fishing industry as a distinct problem alongside global efforts to secure a sustainable fisheries resource.

Furthermore, states remain predominantly unaware of the most appropriate remedies and applicable legal regimes to address this problem, and how they differ from (yet are complimentary to) measures aimed at remedying fisheries management challenges. This lack of distinction between the problem of organised crime in fisheries (in effect a security and law enforcement problem), on the one hand, and IUU fishing (in effect a problem of unsustainable fishing practices), on the other, may lead states to continue making ill-

informed decisions regarding the most suitable approaches to these two challenges, both separately and in concert, with the danger that neither will be adequately addressed.

The distinct natures of the two phenomena are particularly evident when organised crime in fisheries is examined within the context of other maritime crimes.

In February 2019 the UN Security Council heard national submissions highlighting the multifaceted nature of transnational organised crime at sea, including fisheries crime, and the threat it poses to international peace and security. The members underscored the Security Council's potential future role in addressing the problem of fisheries crime, while one permanent member of the Council expressed doubt that IUU fishing, or the degradation of the maritime environment, falls within the Council's power and prerogative (UNSC 2019). It is worth taking note of this point: It is not the primary objective of fisheries management and conservation bodies to address organised crime, and it is not the primary objective of peace and security bodies, like the Security Council, to address fisheries management and conservation. By respecting the distinct natures of organised crime in fisheries and IUU fishing, states will have a wider and complimentary set of tools at their disposal to address the security implications of organised crime in fisheries and the fisheries management implications of IUU fishing, respectively.

In order to meet the targets set by SDG 16 to significantly promote the rule of law, reduce illicit financial flows, combat all forms of organised crime, substantially reduce corruption and bribery, strengthen relevant national institutions and build capacity to combat crime, it is imperative that at a state level there be universal recognition of the security implications of organised crime in fisheries, of the need to address the challenges posed by the shadow blue economy and of the necessity of cooperation at all levels to enhance inter-agency and cross-border fisheries crime law enforcement. As SDG 16 is an enabling goal of, among others, SDG 14 on 'life below water', addressing organised crime in fisheries will impact states' ability to reach the targets set forth in SDG 14.

States are, however, moving towards increased understanding of the problem of organised crime in fisheries. In 2017, a Nordic political declaration on Transnational Organised Fisheries Crime was issued through the Nordic Council of Ministers (the Ålesund Declaration), and in 2018 ministers from nine countries adopted the Copenhagen Declaration, which is gaining traction. In both declarations, the ministers express their conviction 'that there is a need for the world community to recognize the existence of transnational organised crime in the global fishing industry'.

Only when all states share a joint understanding of the problem at hand can technical solutions to address the problem be implemented. To this end, the opportunities for action

suggested below are divided into two consecutive stages (Box 16.1). In the first stage, outlined in Sect. 4.1, the opportunities for action is to work towards the political goal of a common understanding of organised crime in the global fishing industry. A political recognition of the problem is crucial in order to identify and implement more technical and practical opportunities for action to address organised crime in fisheries. In the second stage, outlined in Sect. 4.2, the opportunities for action focus on practical law enforcement tools to address organised crime in the fishing industry based on the promising practices detailed above.

Box 16.1 Summary of Two Stages of Action

- Political Action: Develop a common understanding of transnational organised crime in the fisheries sector globally, and build political will to address the challenge cooperatively.
- Practical Tools: Develop practical tools to strengthen law enforcement capacity through:
 - Strengthened national inter-agency cooperation
 - Effective cross-border law enforcement cooperation
 - Enabling legal frameworks
 - Skills training and capacity building
 - Community-based crime prevention strategies which incorporate a gendered approach
 - Engagement of civil society
 - Support of relevant research

4.1 Stage One: Develop a Common Understanding of Transnational Organised Crime in Fisheries

We offer the following opportunities for action:

- All states should report to the UN General Assembly
 in response to the call made by UNGA Resolution
 63/112 to examine connections between illegal fishing
 and organised crime in the fisheries sector. This will
 facilitate establishment of a solid platform of knowledge
 about the manifestations of organised crime in the fisheries sector as it is experienced around the world.
- UN Security Council members should raise the security implications of transnational organised crime in the fisheries sector to encourage the development of a common understanding of the problem's security dimensions.
- All states should formally support the 2018 International Declaration against Transnational

Organised Crime in the Global Fishing Industry (the Copenhagen Declaration). Broad support for the declaration would be an important step towards developing a common understanding and awareness of the problem of organised crime in the fisheries sector and building the political will to more vigorously address it, which in turn would facilitate achievement of the SDGs.

- All states should report annually on transnational organised crime in the fisheries sector to the UN Commission for Crime Prevention and Criminal Justice (CCPCJ) to ensure widespread and continuous attention to the problem.
- All states should participate in regular international knowledge- sharing forums to share information on, and discuss challenges and opportunities arising from, cases of transitional organised crime in the fisheries sector worldwide. Outcome documents therefrom should be made publicly available.

4.2 Stage Two: Develop Practical Tools to Strengthen Law Enforcement Capacity to Address Organised Crime in the Fisheries Sector

Once there is a common understanding of organised crime in the fisheries sector, states, acting jointly and individually, should develop a number of practical tools to strengthen their criminal law enforcement capacity to address the problem. Together these tools should improve states' ability to prevent, detect and respond to organised crime in the fisheries sector.

We offer the following opportunities for action:

- All governments should strengthen national interagency cooperation to address organised crime in the fisheries sector. We recommend that states introduce national inter-agency models to facilitate and support coordinated criminal law enforcement efforts to prevent organised crime in the fisheries sector and identify and prosecute offenders. The sharing of relevant information across agencies should be facilitated by legislation in line with personal data protection principles (for European Union General Data Protection Regulations, for example, see European Commission 2019). The inter-agency body should have high-level political support, should ideally be established via legislative means and should have a clear mandate and permanence.
- All governments should strengthen cross-border cooperative law enforcement efforts to identify, investigate
 and prosecute cases of transnational organised crime
 in the fisheries sector, including through mutual legal

- assistance. We suggest that the tools available through international and regional networks and organisations, such as multilateral information-sharing and analysis mechanisms, be used to this end, as well as platforms for the secure exchange of financial intelligence, and that existing databases on organised crime, such as the UNODC's SHERLOC (2019) database, be augmented to also include fisheries. This will facilitate the sharing of information and intelligence and enhance the ability of law enforcement action to address organised crime in the fisheries sector.
- All states should review their legal frameworks and implement reforms where needed. The goal should be to criminalise and attach sufficiently deterrent penalties to all fisheries crime offences, introduce anti-corruption and anti-money laundering measures and make provision for asset recovery and forfeiture of the proceeds of crime. We recommend that states provide for the extraterritorial and extra-jurisdictional application of relevant laws (e.g. through a Lacey-type law) and for corporate criminal liability. States should expressly provide for the criminal procedural tool of mutual legal assistance. This will facilitate cross-border information-sharing, asset tracing, and evidence collection and will strengthen investigation and prosecution of cases. States should be encouraged to introduce measures aimed at increased transparency around, for instance, information on the true beneficial ownership of fishing vessels, fishing vessels' movement and licences, and fisheries access agreements. Further, states should be encouraged to support international legal frameworks aimed at reducing human rights abuses in the fishing industry and ensure that these legal frameworks are enacted and enforced at a national level. States should also aim to standardise their laws and penalties. It may be advantageous to consider establishing a fund to assist law enforcement agencies, similar to the Green Fund in Trinidad and Tobago, based on a levy from corporate taxes (Finance Act 91 of 2000, Part XIV).
- All states should engage in skills training and capacity
 building for law enforcement officials in the criminal
 justice system from at-sea to trial. This should include
 the development of skills around financial investigation
 and asset recovery and capacity to detect tax crime in the
 fisheries sector. Mentoring schemes could be beneficial in
 this regard. This will facilitate the identification, investigation and successfully prosecution of cases of organised
 crime in the fisheries sector.
- All states should introduce community-based crime prevention strategies incorporating a gendered approach as appropriate. This will strengthen the resilience of vulnerable coastal communities and their ability to respond to organised crime in the fisheries sector.

- Civil society should engage with the fishing industry
 on corporate social responsibility for sustainable fisheries practices. In response to increasing public demand
 for sustainable fisheries products and a transparent value
 chain, the global fisheries industry is increasingly harnessing CSR practices, which, in turn, help minimise the
 risk of criminal activities in the fisheries value and supply
 chain. Civil society should be encouraged to engage with
 the fishing industry towards the development of corresponding CSR standards.
- All states should support research to understand the causes, nature, scale and impact of organised crime in fisheries. This supports the UN General Assembly's call for states to increase knowledge and understanding of the links between illegal fishing and organised crime. Research outcomes should be made publicly available since they can inform the development of appropriate means to prevent organised crime in fisheries and strengthen the law enforcement response.

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Appendix A

We, the Ministers of Faroe Islands, Ghana, Indonesia, Kiribati, Namibia, Norway, Palau, Solomon Island and Sri Lanka ¹: Encourage other Ministers to support this non-legally binding declaration.

Note the recommendations and the outcome of the second International Symposium on Fisheries Crime held in Yogyakarta, Indonesia 10–11 October 2016 which was published by the United Nations Office on Drugs and Crime at the occasion of the United Nations Commission on Crime Prevention and Criminal Justice during its twenty-sixth session in Vienna 22–26 May 2017.

Recognize that our countries are dependent on the sea and its resources and the opportunities it holds for the economy, food and well-being of our population and we are determined to support a healthy and thriving fishing industry that is based on fair competition and the sustainable use of the ocean

Are committed to work towards the fulfilment of the UN Sustainable Development Goals particularly in relation to Goal 14 on 'Life Below Water' and Goal 16 on 'Peace, Justice and Strong Institutions'.

Are convinced that there is a need for the world community to recognize the existence of transnational organized crime in the global fishing industry and that this activity has a serious effect on the economy, distorts markets, harms the environment and undermines human rights.

Recognize that this transnational activity includes crimes committed through the whole fisheries supply and value chain which includes illegal fishing, corruption, tax and customs fraud, money laundering, embezzlement, document fraud and human trafficking.

Recognize further the inter-continental flow of illegal fish products, illicit money and human trafficking victims in transnational organized crime cases in the global fishing industry and that all regions of the world need to cooperate when investigating such acts.

Are convinced that inter-agency cooperation between relevant governmental agencies is essential at a national, regional and international level in order to prevent, combat and eradicate transnational organized crime in the global fishing industry.

Are also convinced that there is a need for international cooperation and that developing countries are particularly affected.

Recognize the particular vulnerability of small-island developing states and other Large Ocean Nations of the impact of transnational organized crime in the global fishing industry.

Are also convinced of the need for continuous support on the highest level and the necessity for awareness raising on these issues through events such as the International Symposiums on Fisheries Crime.

About the Authors

Lead Authors

Emma Witbooi is a Research Associate with the Nelson Mandela University in Port Elizabeth, South Africa, and Director of the PescaDOLUS International Fisheries Crime Research Network.

Kamal Deen-Ali is Executive Director of the Centre for Maritime Law & Security Africa in Accra, Ghana.

Mas Achmad Santosa was Coordinator of Special Staff in the Indonesian Presidential Task Force to Combat Illegal Fishing at the time of writing.

¹The following countries have subsequently pledged their support to the Declaration: Benin, Chile, Costa Rica, Fiji, Greenland, Iceland, Liberia, Maldives, Marshall Islands, Mexico, Mozambique, Myanmar, Nauru, Philippines, São Tomè and Principe, Scotland, Seychelles, South Africa and Timor Leste. For an updated list see www.bluejustice.org.

Contributing Authors

Gail Hurley was Policy Specialist: Development Finance, UNDP Bureau for Policy and Programme Support at the time of writing.

Yunus Husein was in the Indonesian Presidential Task Force to Combat Illegal Fishing at the time of writing.

Sarika Maharaj is Coordinator of the Fisheries Inspectorate, Fisheries Division in the Ministry of Agriculture, Land and Fisheries, Government of the Republic of Trinidad and Tobago.

Ifesinachi Okafor-Yarwood is a Visiting Fellow at the Centre for Strategic Research and Studies, National Defence College in Abuja, Nigeria.

Inés Arroyo Quiroz is with the Programa de Estudios Socioambientales at the Centro Regional de.

Investigaciones Multidisciplinarias, Universidad Nacional Autónoma de México in Cuernavaca.

Omar Salas is Adviser of the Agencia para la Reincorporación y la Normalización (ARN) with the Presidency of Colombia and former Director of the Justice, Security and Government National Planning Department.

References

- Abadinsky H (2007) Organized Crime, 8th edn. Thomson Wadsworth, Belmont, CA
- Agnew DJ, Pearce J, Ganapathiraju P, Peatman T, Watson R, Beddington JR, Pitcher TJ (2009) Estimating the Worldwide Extent of Illegal Fishing. PLoS One 4(2):1–8. https://doi.org/10.1371/journal.pone.0004570
- Agnew DJ, Walmsley SF, Leotte F, Barnes C, White C, Good S, Deme M, Cherif AM, Suale D (2010) Estimation of the cost of illegal fishing in West Africa: final report. MRAG West Africa Regional Fisheries Project, London
- Akhmirova R 2012. "Head of the Federal Agency for Fishery Andrei Kainy: We Are Defeating the Mafia!" ("Глава Росрыболовства Андрей Крайний: Мы побеждаем мафию!"). Sobesednik.ru, 9 July. https://sobesednik.ru/politika/20120709-glava-rosrybolovstva-andrei-krainii-my-pobezh-daem-mafiyu.
- Ali K (2015) Maritime Security Cooperation in the Gulf of Guinea: Prospects and Challenges. Brill/Nijhoff, Boston
- Alvarado Martínez I, Martínez ER (2018) Trafficking of Totoaba Maw. In: Arroyo Quiroz I, Wyatt T (eds) Green Crime in Mexico: A collection of case studies. Palgrave Macmillan, Green Criminology. London, pp 149–170
- Antara News. 2018. "90 Percent of Drug Smuggling into Indonesia via Sea." *Antaranews.com*, 7 October. https://en.antaranews.com/news/119269/90-percent-of-drug-smuggling-into-indonesia-via-sea
- Australian Crime Commission (2009) Organized Crime in Australia: 2009. Australian Government, Canberra
- Banaseh, M.A. 2017. "Ghana Risks Losing GH¢1.5bn to Fuel Smuggling." Graphic Online, 23 August. https://www.graphic. com.gh/news/gener-al-news/ghana-risks-losing-gh-1-5bn-to-fuel-smuggling.html

- Bassant M 2019. "Venezuela's 'Evander' Gang Leader Held in T&T." *Trinidad and Tobago Guardian*, 20 May. https://www.guardian.co.tt/news/venezuelas-evander-gang-leader-held-in-tt-6.2.849655.de097b4f83.
- Beseng M (2019) Cameroon's Choppy Waters: The Anatomy of Fisheries Crime in the Maritime Fisheries Sector. Mar Policy 108:10
- Blowfield M, Frynas JG (2005) Setting New Agendas: Critical Perspectives on Corporate Social Responsibility in the Developing World. Int Aff 81(3):499–513
- Blue Justice. 2020. "Blue Justice Initiative." https://bluejustice.org/blue-justice-initiative/. Accessed 2 February.
- Cabral RB, Mayorga J, Clemence M, Lynham J, Koeshendrajana S, Muawanah U, Nugroho D et al (2018) Rapid and lasting gains from solving illegal fishing. Nat Ecol Evolution 2:650–658
- CCPCJ (UN Commission on Crime Prevention and Criminal Justice). 2016. "Outcome of the UNODC/WWF Fisheries Crime Expert Group Meeting, 24–26 February 2016, Vienna." CCPCJ Conference Room Paper, 11 May. E/CN.15/2016/CRP.2.
- CCPCJ. 2017. "Outcome of the 2nd International Symposium on Fisheries Crime, October 10–11, 2016, Yogyakarta, Indonesia." CCPCJ Conference Room Paper, 17 May. E/CN.15/2017/CRP.3.
- Chatham House (2013) Maritime Security in the Gulf of Guinea: Report of the Conference Held at Chatham House, London, 6 December 2012. Chatham House, London
- Cochrane, K. 2017. "Department Will Be Judged Harshly if It Fails to Protect Rock Lobster." Cape Times, 26 September. https://www.iol. co.za/capetimes/opinion/department-will-be-judged-harshly-if-it-fails-to-protect-rock-lobster-11366443.
- Colombian National Navy (Armada Nacional). 2015. "Activación de la Fuerza de tarea contra el narcotráfico en el Caribe" ("Activation of the Task Force against Drug Trafficking in the Caribbean"). 19 February. https://www.armada.mil.co/es/content/activacion-de-la-fuerza-de-tar-ea-contra-el-narcotrafico-en-el-caribe
- CRFM (Caribbean Regional Fisheries Mechanism) (2018) CRFM Statistics and Information Report 2016. CRFM, Belize
- Crosta A, Sutherland K, Talerico C, Layolle I, Fantacci B (2018) Operation Fake Gold: The Totoaba Supply Chain—From Mexico's Totoaba Cartels to China's Totoaba Maw Wholesalers—An Illegal Trade Killing the Vaquita. Elephant Action League, Los Angeles
- Dagbladet. 2018a. "The Hidden Slave Contracts." 17 November. https://www.dagbladet.no/nyheter/de-skjulte-slavekontraktene/70460627.
- Dagbladet. 2018b. "Deadliest Catch." 11 December. https://www.dagbla-det.no/magasinet/the-deadliest-catch/70534450.
- Dambach, K. 2019. "Human Traffickers Arrested in Italy." InfoMigrants, 24 June. https://www.infomigrants.net/en/ post/17708/human-traffickers-arrested-in-italy
- de Coning E (2016) Fisheries Crime. In: Elliott L, Schaedla WH (eds) Handbook of Transnational Environmental Crime. Edward Elgar Publishing, Cheltenham, p 204
- de Greef K, Raemaekers S (2014) South Africa's Illicit Abalone Trade: An Updated Overview and Knowledge Gap Analysis. Traffic International, Cambridge, UK
- Demont J 2003. "Maritime Drug Smuggling and Rum-Running." Canadi- an Encyclopedia, 17 March. https://www.thecanadianencyclopedia.ca/en/article/maritime-drug-smuggling-and-rum-running
- Devlin C, Glaser SM, Villegas C, Poinsatte N (2020) Rough Seas: The Causes and Consequences of Fisheries Conflict in Somali Waters. One Earth Future, Broomfield, CO
- Doumbouya A, Camara OT, Manie J, Intchama JF, Jarra A, Ceesay S, Guèye A et al (2017) Assessing the Effectiveness of Monitoring Control and Surveillance of Illegal Fishing: The Case of West Africa. Front Mar Sci:7. https://doi.org/10.3389/fmars.2017.00050
- Egmont Group. 2014. "Egmont Cases. Financial Analysis Cases, 2011–2013." Toronto: Egmont Group.

- Emmort, R. 2009. "Mexico Finds Cocaine Haul Hidden in Frozen Sharks." *Reuters World News*, 16 June. https://www.reuters.com/article/us-mexico-drugs/mexico-finds-cocaine-haul-hidden-in-frozen-sharks-idUSN1631193420090617
- Ensign ES (2001) Intelligence in the Rum War at Sea, 1920–1933. Joint Military Intelligence College, Washington, DC
- EURONEWS. 2019. "Caught in the Act: People Smugglers Filmed Transfer- ring Migrants at Sea." 22 June. https://www.euronews.com/2019/06/22/caught-in-the-act-people-smugglers-filmed-transferring-migrants-at-sea.
- European Commission. 2019. "EU Data Protection Rules." https:// ec.europaeu/commission/priorities/justice-and-fundamental-rights/ data-protection/2018-reform-eu-data-protection-rules/eu-dataprotection-rules_en. Accessed 18 October.
- EUROPOL (European Union Agency for Law Enforcement Cooperation) (2004) European Union Organized Crime Report. EUROPOL, Luxembourg
- EUROPOL. 2018. "Fraud on a Plate: Over 3 600 Tonnes of Dangerous Food Removed from Consumer Market." Press release, 25 April. https://www.europol.europa.eu/newsroom/news/fraud-plate-over-3-600-tonnes-of-dangerous-food-removed-consumer-market.
- FAO (UN Food and Agriculture Organization) (2014) Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. FAO, Rome
- FAO (2018) The State of World Fisheries and Aquaculture: Meeting the Sustainable Development Goals 2018. FAO, Rome
- FAO. 2019. Draft: Guidance on Social Responsibility in Fisheries and Aquaculture Value Chains. Rome: FAO. https://socialfisheries.fao. konveio.com/. Accessed 18 October.
- FAO Legal Office. 2019. "Survey of Practice on Fisheries Law Enforcement Process: Administrative v Criminal v Both." Presentation during side event at Our Ocean 2019, Oslo, 23 October
- FATF (Financial Action Task Force) 2012–2019. International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation. Paris: FATF.
- Felix SG (2017) Resilience in Sinaloa: Community Responses to Organized Crime. Global Initiative against Transnational Organized Crime. Geneva
- Fenstadt A, Kvile K. 2016. "Polaris' Owner Promises to Clean Up Mess with Crew." ("'Polaris'-reder lover å rydde opp i mannskapsrot") *Fiskeribladet*, 14 April. https://fiskeribladet.no/nyheter/?artikkel=46419
- Fisher, H. 2016. "Rocky Point Residents Beg for Peace." *Jamaica Star*, 13 April. http://weww.jamaica-star.com/article/news/20160413/rocky-point-residents-beg-peace.
- Fröhlich T (2003) Final Report: Organized Environmental Crime in the EU Member States. Betreuungsgesellschaft für Umweltfragen, Kassel, Germany
- Galaz V, Crona B, Dauriach A, Jouffray J-B, Österblom H, Fichtner J (2018) Tax havens and global environmental degradation. Nat Ecol Evolution 2:1352–1357
- Galbraith K 2015. "The Horrors of Fishing with Dynamite." New York Times, 4 February. https://www.nytimes.com/2015/02/05/business/ energy-environment/the-horrors-of-fishing-with-dynamite.html
- Gilman N, Goldhammer J, Weber S (2011) Deviant Globalization: Black Market Economy in the 21st Century. Continuum International, New York
- Gilpin R 2007. "Enhancing Maritime Security in the Gulf of Guinea." Strategic Studies 6 (1). Naval Postgraduate School. Monterey, CA: Center for Contemporary Conflict.
- Global Financial Integrity (2017) Transnational Crime and the Developing World. Global Financial Integrity, Washington DC

- Global Financial Integrity. 2019. "Trade Misinvoicing." https://gfintegrity.org/issue/trade-misinvoicing/. Accessed 18 October.
- Gottschalk P (2012) White-Collar Criminals. Cases and Theories of Financial Crime. Unipub, Oslo
- Government of Jamaica (2007) National Security Policy for Jamaica: Towards a Secure and Prosperous Nation. Government of Jamaica, Kingston
- Grey, S., and A. Ismail. 2016. "The Forgotten Shipwreck." *Reuters*, 6 December. https://www.reuters.com/investigates/special-report/ europe-migrants-egypt-ship/
- The Guardian. 2014. "Revealed: Asian Slave Labour Producing Prawns in Supermarkets in US, UK." 10 June. https://www.theguardian.com/global-development/2014/jun/10/supermarket-prawns-thailand-produced-slave-labour
- The Guardian. 2019. "Venezuelan Refugees Feared Drowned on Route to Trinidad." 25 April. https://www.theguardian.com/world/2019/apr/25/venezuelan-refugees-feared-drowned-trinidad-boat-sinks.
- Hauck M, Sweijd NA (1999) A Case Study of Abalone Poaching in South Africa and Its Impact on Fisheries Management. ICES J Mar Sci 56:1024–1032
- Hübschle, A., and C. Shearing. 2018. Ending Wildlife Trafficking: Local Communities as Change Agents. Geneva: Global Initiative against Transnational Organized Crime. http://globalinitiative.net/wpcontent/uploads/2018/08/TGIATOC-Wildlife-Trafficking-Report-WEB-4.pdf.
- Human Rights at Sea. 2019. "Case Study—In Their Own Words: The Story of Josaisa and Virisila Cama, Fiji. Human Rights Abuse in Fijian Crewed Fisheries." May. https://www.humanrightsatsea.org/case-studies.
- Husein Y (2014) Combating Environmental Crime with Anti–Money Laundering Initiatives: The Indonesian Experience. In: Rose G (ed) Following the Proceeds of Environmental Crime: Forests, Fish and Filthy Lucre. Routledge, London, pp 71–80
- ILO (International Labour Organization) (2016) Fishers First: Good Practices to End Labour Exploitation at Sea. ILO, Geneva
- IMB (International Maritime Bureau) (2013) Piracy and Armed Robbery against Ships: Report of the Period 1 Jan.—31 Dec. 2012. ICC International Maritime Bureau, London
- Indonesian Ministry of Finance (2019) Government Revenue Model. Indonesian Ministry of Finance, Jakarta
- Indonesian National Narcotics Board. 2012. "Disclosure of International Drug Networks." Press release, 28 May. https://bnn.go.id/pengungkapan-jaringan-sindikat-narkoba-internasional-dengan-barangbukti-1-412-476-butir-ekstasi/
- Intchama J, Belhabib D, Jumpe R (2018) Assessing Guinea Bissau's Legal and Illegal Unreported and Unregulated Fisheries and the Surveillance Efforts to Tackle Them. Front Mar Sci 5:79
- INTERPOL (International Criminal Police Organization) (2014) Study on Fisheries Crime in the West African Coastal Region. INTERPOL, Lyon
- INTERPOL (2018) International Law Enforcement Cooperation in the Fisher- ies Sector: A Guide for Law Enforcement Practitioners. INTERPOL, Lyon
- IOC (Indian Ocean Commission) and FAO (UN Food and Agriculture Organization) (2015) A Multi-agency Task Team Working Together to End Destructive Blast Fishing. FAO, Rome
- Isaacs M, Witbooi E (2019) "Fisheries Crime, Human Rights and Small-Scale Fisheries in South Africa: A Case of Bigger Fish to Fry." Special section, "Transnational Organized Fisheries Crime.". Mar Policy 105:158–169
- Johnston SJ, Butterworth DS. 2017. "Summary of South Coast Rock Lobster (Palinurus Gilchristi) Fishery." Background document to "In- ternational Fisheries Stock Assessment Review Workshop."

- Department of Mathematics and Applied Mathematics, University of Cape Town.
- Kaplan-Hallama M, Bennetta NJ, Satterfielda T (2017) Catching Sea Cucumber Fever in Coastal Communities: Conceptualizing the Impacts of Shocks versus Trends on Social-Ecological Systems. Glob Environ Chang 45:89–98
- Kercher J (2018) Fisheries Crime and the SDGs: The Call and the Tools for Interagency Cooperation. In: Paper presented at FishCRIME 2018. UN City, Copenhagen. https://www.sdg16hub.org/content/fisheries-crime-and-sdgs-call-and-tools-interagency-policycooperation
- Kraemer RA (2017) "A Sustainable Ocean Economy, Innovation and Growth: A G20 Initiative." Policy brief no. 113 (July). Centre for International Governance Innovation, Waterloo, Canada
- Krivoshapko J 2017. "A Fish! The Antimonopoly Service Has Uncovered Schemes by Which Foreigners Illegally Catch Our Fish." ("Рыба! Антимонопольная служба раскрыла схемы, с помощью которых иностранцы незаконно ловят нашу рыбу") Rossiyskaya Gazeta, 20 June. https://rg.ru/2017/06/20/fas-raskryla-shemy-ponezakon-nomu-lovu-rossijskoj-ryby-inostrancami.html
- LON Forum Report (Large Ocean Nations Forum Transnational Organized Fisheries Crime Report). 2019. http://www.bluejustice.org. Accessed 18 October
- Lawrence, F., and E. McSweeney. 2017. "UK Police Rescue Nine Suspected Victims of Slavery from British Trawlers." *The Guardian*,
 12 December. https://www.theguardian.com/world/2017/dec/12/uk-police-rescue-nine-suspected-victims-of-slavery-from-british-trawlers
- Leslie G (2010) Confronting the Don: The Political Economy of Gang Violence in Jamaica. In: An Occasional Paper of the Small Arms Survey, Graduate Institute of International and Development Studies. Small Arms Survey, Geneva
- Lefevre, A.S. 2014. "Thai Fishermen Convert Boats to Cash In on Human-Smuggling." Reuters, November 20. https://www.reuters.com/article/us-thailand-rohingya/thai-fishermen-convert-boats-to-cash-in-on-human-smuggling-idUSKCN0J40P120141120.
- Lindley, J., S. Percy and E. Techera. 2018. "Illegal Fishing and Australian Security." Australian Institute of International Affairs, 22 December. http://www.internationalaffairs.org.au/ australianoutlook/illegal-fishing-australia/
- Liss C 2007. "The Roots of Piracy in Southeast Asia." APSNet Policy Forum, 22 October.
- Livelihoods Report (*Livelihood Baseline Assessment and Disaster Risk Pro- filing: Rocky Point, Clarendon.* Final Report) 2012. Prepared for the FAO
- Madsen F (2009) Transnational Organized Crime. Routledge, Oxon, UK
- Matthews, E., J. Bechtel, E. Britton, K. Morrison and C. McClennen. 2012. A Gender Perspective on Securing Livelihoods and Nutrition in Fish-De-pendent Coastal Communities. Report to Rockefeller Foundation from Wildlife Conservation Society. http://anewcourse. org/wp-content/up-loads/2013/04/WCS-Gender-Fisheries-2012.pdf
- MFA (Ministry of Foreign Affairs of the Kingdom of Thailand). 2018. "Press Release: Thailand Has Set Up the Flying Inspection Team to Increase the Effectiveness of the PIPO Control Centres." 9 March. http://www.mfa.go.th/main/en/news3/6886/87142-Thailand-hasset-up-the-Flying-In-spection-Team-to.html.
- MMFA (Ministry of Maritime and Fisheries Affairs, Indonesia) (2018) Sea for the Future of the Nation. MMFA, Jakarta
- NA-FIG (North Atlantic Fisheries Intelligence Group). 2017. Chasing Red Herring: Flags of Convenience, Secrecy and the Impact on Fisheries Crime Law Enforcement. Oslo: NA-FIG. http://norden.diva-portal.org/smash/get/diva2:1253427/FULLTEXT01.pdf.

- Neil JA 2018. "IUU Fishing: A Gateway to Transnational Crimes in Jamaica." World Maritime University Dissertations. Malmö, Sweden: World Maritime University.
- Norwegian Police University College. 2019. https://www.phs.no/. Accessed 18 October
- Obokata T (2010) Transnational Organised Crime in International Law (Studies in International and Comparative Criminal Law). Hart, Oxford, UK
- Oceana (2018) Seafood Fraud and Mislabelling across Canada. Oceana, Washington, DC
- OECD (2013) Evading the Net: Tax Crime in the Fisheries Sector.
 OECD Paris
- Okafor-Yarwood I (2018) The Effects of Oil Pollution on the Marine Envi-ronment in the Gulf of Guinea: The Bonga Oil Field Example. Transnational Legal Theory 9(3–4):254–271
- Okafor-Yarwood I (2019) Illegal, Unreported and Unregulated Fishing, and the Complexities of the Sustainable Development Goals (SDGs) for Countries in the Gulf of Guinea. Mar Policy 99:414–422
- Okafor-Yarwood I (2020) The Cyclical Nature of Maritime Security Threats: Illegal, Unreported and Unregulated Fishing as a Threat to Human and National Security in the Gulf of Guinea. African Security:1–31. https://doi.org/10.1080/19392206.2020.1724432
- Okonko IO, Nnodim LC (2015) Trends in HIV Prevalence from 2008 to 2012 among Young Adults in Port Harcourt, Nigeria. Afr Health Sci 15(3):776–788
- Onuoha F (2012) Piracy and Maritime Security in the Gulf of Guinea: Nigeria as a Microcosm. Al Jazeera Centre for Studies, Qatar
- One Earth Future. 2018. The State of Maritime Piracy 2018: Assessing the Human Cost. https://stableseas.org/publications/maritime-terrorism/state-piracy-2018-human-cost.
- Otto RS (2014) History of King Crab Fisheries with Special Reference to the North Pacific Ocean: Development, Maturity, and Senescence. In: Stevens BG (ed) King Crabs of the World: Biology and Fisheries Management. CRC Press, Boca Raton, FL, pp 81–138
- Packer H, Swarz W, Ota Y, Baily M (2019) Corporate Social Responsibility (CSR) Practices of the Largest Seafood Suppliers in the Wild Capture Fisheries Sector: From Vision to Action. Sustainability 11:1–24
- Parks I (2014) Following the Proceeds of Bluewater Crime: Case Studies from an Australian Fisheries. In: Rose G (ed) Following the Proceeds of Environmental Crime: Forests, Fish and Filthy Lucre. Routledge, London, pp 116–139
- Pew Charitable Trusts Environmental Group (2012) Navigating Global Shark Conservation: Current Measures and Gaps. Pew Charitable Trusts, Washington, DC
- Pomeroy R et al (2007) Fish Wars: Conflict and Collaboration in Fisheries Management in Southeast Asia. Mar Policy 31(6):645–656
- Ralby I (2018) Oil on the Water: Illicit Hydrocarbons Activity in the Maritime Domain. Atlantic Council, Washington, DC
- Republic of Trinidad and Tobago Finance Act 91 of 2000 2019
- Robinson, C. 2017. "Mission: Clarendon Rescue: It's a 'Rocky Road'—Gangsters Make Life Miserable for Residents of Once-Peaceful Fishing Village." Gleaner, 15 January. http://jamaica-gleaner.com/article/lead-stories/20170115/mission-clarendon-rescue-its-rocky-road-gangsters-make-life-miserable
- Samatar A, Lindberg M, Mahayni B (2010) The Dialectics of Piracy in Somalia: The Rich versus the Poor. Third World Q 31(8):1377–1394
- Santos-Fita D (2018) Subsistence Hunting in Rural Communities: Incom-patibilities and Opportunities within Mexican Environmental Legislation. J Ethnobiol 38(3):356–371
- Shaw M (2017) Africa's Changing Place in the Global Criminal Economy. ENACT, New Delhi

- Shaw M, Kemp W (2012) Spotting the Spoilers: A Guide to Ana-lyzing Organized Crime in Fragile States. International Peace Institute, New York
- Shaxon N (2011) Treasure Islands: Tax Havens and the Men Who Stole the World. Penguin Random House, London
- Spijkers J, Singh G, Blasiak R, Morrison TH, Le Billon P, H. Österblom (2019) Global Patterns of Fisheries Conflict: Forty Years of Data. Glob Environ Chang 57:101921
- Standing A (2008) "Corruption and Commercial Fisheries in Africa." CMI Institute U4 Brief. CMI Institute, Bergen, Sweden
- Standing A (2015) "Corruption and State Corporate Crime in Fisheries." CMI Institute U4 Brief. CMI Institute, Bergen, Sweden
- Steinberg, J. 2005. "The Illicit Abalone Trade in South Africa." Occasional paper no. 105. Pretoria: Institute for Security Studies
- Stringer C, Harré T (2019) "Human Trafficking as Fisheries Crime? An Application of the Concept to the New Zealand Context." Special section, "Transnational Organized Fisheries Crime.". Mar Policy 105:169–176
- Sumaila UR, Bawumia M (2014) Fisheries, Ecosystem Justice and Piracy: A Case Study of Somalia. Fish Res 157:154–163
- Sumaila UR, Zeller D, Hood L, Palomares MLD, Li Y, Pauly D (2020) Illicit Trade in Marine Fish Catch and Its Effects on Ecosystems and People Worldwide. Sci Adv 6:eaaz3801
- Sutton H (2017) Unpacking the High Cost of Crime in the Caribbean:
 Violent Crime, the Private Sector, and the Government Response.
 In: Jaitman L (ed) The Cost of Crime and Violence: New Evidence and Insights in Latin America and the Caribbean.
 Section 7. Inter-American Development Bank, Washington, DC
- Tavornmas, A. 2019. "From EU IUU Yellow to Green Card: Thailand's Sustainable Fisheries, 2019." Paper presented at ASEAN Regional Forum, Bali, 27 June
- Tickler D, Meeuwig JJ, Bryant K, David F, Forrest JAH, Gordon E,Joudo Larsen J, Oh B, Pauly D, Sumaila UR, Zeller D (2018)Modern Slavery and the Race to Fish. Nat Commun 9:4643
- Udoh I, Mantell JE, Sandfort T, Eighmy M (2009) Potential Pathways to HIV/AIDS Transmission in the Niger Delta of Nigeria: Poverty, Migration and Commercial Sex. AIDS Care 21(5):567–574
- UN (United Nations). 2003. "Report of the Panel of Experts in Somalia Pursuant to Security Council Resolution 1474." S/2003/1035. 4 November.
- UN (2012) The Future We Want: Outcome Document of the United Nations Conference on Sustainable Development. Rio de Janeiro, 20–22 June. UN, New York
- UN. 2019. Report of the Meeting of the Working Group on the Smuggling of Migrants, Held in Vienna from 11 to 13 September 2019. CTOC/ COP/WG.7/2019/6
- UNDP (2018) Human Development Indices and Indicators: 2018 Statistical Update. UNDP, New York
- UNGA (UN General Assembly). 2012. Fisheries: Interim Report of the Spe-cial Rapporteur on the Right to Food. 8 August. A/67/268.
- UNODC (United Nations Office on Drugs and Crime) (2011)
 Transnational Organized Crime in the Fishing Industry: Focus
 on: Trafficking in Persons Smuggling of Migrants Illicit Drugs
 Trafficking. UNODC, Vienna
- UNODC (2017) Stretching the Fishnet: Identifying Opportunities to Address Fisheries Crime. UNODC, Vienna
- UNODC (2019a) Rotten Fish: A Guide on Addressing Corruption in the Fish- eries Sector. UNODC, Vienna
- UNODC. 2019b. "Drug Trafficking." https://wwwunodc.org/unodc/en/ drug-trafficking/index.html. Accessed 18 October
- UNODC and World Bank (2007) Crime, Violence and Development: Trends, Costs and Policy Implications in the Caribbean. UN, New York
- UN OHCHR (UN Office of the High Commissioner for Human Rights) (2011) Guiding Principles on Business and Human Rights:

- Implementing the United Nations "Respect, Protect and Remedy" Framework. UN, New York
- UNSC (United Nations Security Council). 2019. "Maintenance of International Peace and Security: Transnational Organized Crime at Sea as a Threat to International Peace and Security." 8457th Meeting, New York, February. S/PV.8457
- USAID (U.S. Agency for International Development) (2016) Fishing for Food Security: Importance of Wild Fisheries for Food Security and Nutrition. USAID, Washington, DC
- U.S. Department of Justice. 2017. "Three Charged with Illegal Trafficking of \$17 Million Worth of Sea Cucumbers." 26 May. https://www.justice.gov/usao-sdca/pr/three-charged-illegal-trafficking-17-million-worth-sea-cucumbers
- U.S. Department of Justice. 2019. "Federal Jury Convicts Two Defendants of Narcotics and Money Laundering Conspiracies." https://www.justice.gov/usao-wdny/pr/federal-jury-convicts-two-defendants-narcotics-and-money-laundering-conspiracies. Accessed 18 October.
- U.S. Department of State, Bureau for International Narcotics and Law Enforcement Affairs (2018) International Narcotics Control Strategy Report (INCSR), vol 1. U.S. Department of State, Washington, DC
- Varese F (2017) What Is Organized Crime? In: Carnevale S, Forlati S, Giolo O (eds) Redefining Organized Crime: A Challenge for the European Union? Hart, Oxford, UK, pp 27–56
- Vidal, J. 2012. "Will Overfishing by Foreigners Drive Senegalese Fisher- men to Piracy?" *The Guardian*, 3 April. https://www.the-guardian.com/global-development/poverty-matters/2012/apr/03/overfishing-foreigners-senegal-fishermen-piracy
- Wilhjálmsson IF 2019. "An Icelandic Fishing Company Bribed Officials in Namibia and Used Norway's Largest Bank to Transfer 70 Million Dollars to a Tax Haven." Stundin, 12 November. https://stundin.is/grein/9920/
- Witbooi E (2020) Criminality and Resilience. Rocky Point, Jamaica. In: Research Report. Global Initiative against Transnational Organized Crime, Geneva. https://globalinitiative.net/criminality-resilience-jamaica/
- World Bank. 2017. "Promoting Community-Based Climate Resilience in the Fisheries Sector Project Information Document" (Jamaica). 30 June. http://documents.worldbank.org/curated/en/618281498849417411/pdf/IL-AISPID-CP-P164257-06-30-2017-1498849394475.pdf.
- Zueras D 2010. "Costa Rica: (In)human Trafficking." IPS News, 15 April. http://www.ipsnews.net/2010/04/costa-rica-inhuman-trafficking/

Court Case

WWF South Africa v Minister of Agriculture, Forestry and Fisheries and Others (11478/18) (2018) ZAWCHC 127; [2018] 4 All SA 889 (WCC); 2019 (2) SA 403 (WCC) (26 September 2018)

Conventions

- ILO (International Labour Organization), 1930. Forced Labour Convention (no. 29)
- UN (United Nations) (1982) International Law of the Sea. UN, New York
- UN (2004a) United Nations Convention against Transnational Organized Crime and the Protocols Thereto. UN, New York
- UN (2004b) United Nations Convention against Corruption. UN, New York. UN Resolutions: UNGA (UN General Assembly) Resolution 63/112 of 5 December 2008. UN Doc A/RES/63/112

- UN CCPCJ Resolution 20/5 of 15 April 2011. UN Doc E/2011/30, E/CN.15/2011/21
- UN General Assembly Resolution of 21 October 2015. "Transforming Our World: The 2030 Agenda for Sustainable Development." A/Res/70/1
- UN Security Council Resolution 2316/2016. Adopted by the Security Council at its 7805th meeting on 9 November 2016. S/RES/2316 (2016)
- UN Security Council Resolution 2842/2019. Adopted by the Security Council at its 8582nd meeting on 19 July 2019. S/RES/2842 (2019).

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