

1 **Organized Crime in the Fisheries Sector Threatens a Sustainable Ocean Economy**

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7
8 The threat of criminal activity in the fisheries sector has concerned the international
9 community for a number of years. In more recent times, organized crime in fisheries as a
10 phenomenon has come to the fore. In 2008, the UN General Assembly requested all states to
11 contribute towards understanding the connection between illegal fishing and transnational
12 organized crime at sea. Policy makers, researchers and civil society are increasing their
13 knowledge of the dynamics and destructiveness of the blue shadow economy and the role of
14 organized crime therein. Anecdotal, scientific and example-based evidence of the various
15 manifestations of organized crime in fisheries, its widespread adverse impacts on economies,
16 societies and the environment globally, and its potential security implications, is now publicly
17 available. Here we present the current state of knowledge on organized crime in the fisheries
18 sector. We show how the many facets of organised crime in the fisheries sector, including
19 fraud, drug trafficking and forced labour, hinder progress towards the development of a
20 sustainable ocean economy. With reference to worldwide promising practices, we highlight
21 practical opportunities for action to address the problem. We emphasize the need for a shared
22 understanding of the challenge and the implementation of intelligence-led, skills-based
23 cooperative law enforcement action at a global level and a community-based approach in the
24 supply chain of organized criminal networks at local level, facilitated by enabling legislative
25 frameworks and increased transparency.

26 27 **MAIN TEXT**

28 29 **1. Introduction**

30
31 The global community has for a number of years raised concern about the threat of
32 criminality in the fisheries sector. In 2008 the UN General Assembly¹ sounded an alarm about
33 the “possible connection between international organized crime and illegal fishing in certain

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34 regions of the world”². It urged states to research the links between these two phenomena and
 35 the evidence thereof, bearing in mind the “distinct legal regimes and remedies under
 36 international law applicable to illegal fishing and international organized crime” respectively³.
 37 The UN Security Council further considered in 2019 transnational organized crime at sea,
 38 including fisheries crime, as a threat to international peace and security⁴. In 2011 a
 39 comprehensive report highlighting the vulnerability of the global fishing industry to multiple
 40 crimes, frequently organized, and global evidence thereof, was produced. The report
 41 recommended a cooperative criminal law enforcement response to the problem, subsequently
 42 echoed by the UN Commission for Crime Prevention and Criminal Justice, towards
 43 preventing transnational organized crime at sea⁵. INTERPOL established a Fisheries Crime
 44 Working Group in 2013 as a conduit for joint law enforcement operations targeting
 45 transnational organized fisheries crime networks. Lessons learned were shared with the global
 46 community, including high-level politicians, at annual international symposiums leading to
 47 the adoption of a Ministerial Declaration on Transnational Organized Crime in the Global
 48 Fishing Industry (Copenhagen Declaration) in 2018. The Declaration, currently supported by
 49 28 states, maps a course of global commitment to combat transnational organized fisheries
 50 crime to help foster a sustainable blue economy.

51
 52 This review is a distillation of the 16th Blue Paper commissioned by the High Level Panel for
 53 a Sustainable Ocean Economy which presents the current state of knowledge on the question
 54 of how organized crime in the fisheries sector impedes the realization of a sustainable ocean
 55 economy, including an examination of the various crime types falling under the term
 56 “fisheries crime”, and what practical measures can be taken to counter this⁶.

57
 58
 59
 60

Defining organized crime in the fisheries sector

61 The modern fisheries sector is, like many other economic sectors, globalized, industrialized,
 62 and integrated into the worldwide financial market; it is similarly exposed to organized crime.
 63 Organized crime in the fisheries sector is unlikely a novel problem; the infamous gangster and
 64 businessman Al Capone, for instance, exploited the fishing industry for rum running in the
 65 1920s⁷. More likely, it is a recent labelling of a phenomenon borne of the current focus on
 66 sustainable fisheries management in the context of a sustainable ocean economy, which has
 67 focused attention on the role of organized crime in the emerging parallel shadow blue
 68 economy.

69

70 Numerous definitions of organized crime exist⁸. Organized crime is often associated with
 71 hierarchical, exclusive and monopolistic groups —with a strong ethnic or societal
 72 commonality — leaning towards violence, a criminal sub-culture or otherwise deviant
 73 behavior⁹. A broader understanding of organized crime, adopted here, is that it consists of
 74 networks of individuals that converge and collaborate over time to commit crime, with the
 75 networks’ profile varying from loosely knit flat structures to hierarchical chains of command,
 76 with correspondingly diverse crime script (*modus operandi*)¹⁰. Organized criminal groups
 77 may share characteristics with “conventional” businesses, such as structure and capability¹¹,
 78 and frequently operate in the “white-collar” realm¹². The ability of the network to protect its
 79 operations (“protection economy”) — through violence, bribery or extortion — is a common,
 80 but not necessarily defining, feature of organized crime¹³.

81

82 From a legal perspective, organized crime is defined in the United Nations Convention on
 83 Transnational Organized Crime (the Palermo Convention)¹⁴ as a “serious crime” (an offence
 84 “punishable by a minimum deprivation of liberty of at least four years or a more serious

85 penalty”) committed by a structured group of three or more persons with the aim of obtaining
86 financial or other material benefit¹⁵.

87 Whilst international instruments provide a clear legal benchmark of what constitutes
88 organized crime, outside the letter of the law, both conceptually and in practice, there is often
89 ambiguity around what is regarded as “criminal behavior” and, in particular, the extent to
90 which criminal economies associated with organized crime are “normalized” in any given
91 community¹⁶.

92
93 Crime in the fisheries sector is often referred to as “fisheries crime” or “fisheries-related
94 crime”.¹⁷ It includes a range of criminal offences throughout the value chain from the
95 preparatory stage to at-sea activities to landing, processing, transportation, trade, and sale¹⁸.
96 Criminal offences may thus be committed at sea, on land, at the coastal interface or in
97 cyberspace, including the use of the Darknet¹⁹. A commonality is that the offences are profit
98 driven, i.e., they are economic crime²⁰. Many offences are conducted or continued
99 extraterritorially, on the high seas and in other areas beyond national jurisdiction, such as
100 regional seas, making most fisheries crime cases transnational crime with the added
101 complication of jurisdictional obscurity²¹. Organized crime may take place within the fishing
102 industry or from outside, using the sector as a cover for other criminal activities.²² In practice
103 many of the same issues pertaining to law enforcement will arise regardless of whether the
104 organized crime is embedded in the industry or not²³.

105

106 Two recent illustrative examples show how organized crime in the fisheries sector may
107 unfold.

108

109 **The *Viking* case**

110 In February 2016 the Indonesian Navy intercepted and detained the fishing vessel *Viking* in
111 Indonesian waters. The vessel was the subject of an INTERPOL Purple Notice, informing law
112 enforcement agencies globally of the network’s use of numerous vessel identities and
113 nationalities (flag states) and the unclear ownership structures of the vessel, making it
114 difficult to identify which country had jurisdiction over the vessel and was responsible for its
115 activities. The owners and operators of the *Viking* landed and marketed illegally caught
116 Patagonian Toothfish from the Southern Ocean for over a decade in contravention of the
117 multilateral fisheries management regime in the area. Their turnover from this vessel alone
118 (there is good reason to believe that the network operated several such vessels) was estimated
119 at around half a billion dollars.²⁴

120

121 The documents presented on behalf of the vessel were forgeries and the vessel thus sailed
122 under a false identity and flag. Unable to trace the vessel’s stated owner (suggesting it was a
123 fictional company), the vessel was determined stateless and subjected to Indonesian
124 jurisdiction. In Indonesia, document forgery is punishable with imprisonment of up to six
125 years; gillnets were also found in the hold exceeding 2.5 km in length, a further infringement
126 of Indonesian law, subject to five years imprisonment and a criminal penalty of up to
127 US\$150,000. Investigations revealed three alleged core members of the network’s
128 organization: the vessel’s master; an Australian national based in Singapore (who acted as the
129 operator of the vessel) and a Spanish national, domiciled in South Africa (the likely beneficial
130 owner of the vessel). The vessel operated out of ports across Southeast Asia and Africa using
131 forged documents, landing, shipping, and trading Patagonian Toothfish; they sourced crew,
132 supplies, and fuel across the world.

133

134 **The Rock Lobster Case**

135 In May 2001, following a tip-off, South African officials seized and opened a container
 136 destined for the U.S. belonging to the South African company Hout Bay Fishing Industries
 137 (Pty) Ltd. The container's contents included unlawfully harvested lobster tails and Patagonian
 138 Toothfish. U.S. authorities were alerted and subsequently intercepted the next container
 139 exported by the company to the U.S. A protracted cooperative investigation followed
 140 involving South African and U.S. authorities, culminating in the arrest of the company's main
 141 director and two others in 2003 and criminal proceedings in both South Africa and the U.S.
 142 Investigations revealed that from 1987 to 2001 the network illegally harvested large quantities
 143 of west and south coast rock lobster in South African waters for export to the U.S.,
 144 systematically exceeding their authorised quota. The network bribed a large number of
 145 government fisheries officers and laundered their profits in a complex web of properties and
 146 offshore banks and trusts.

147 In South Africa, the main director of Hout Bay Fishing Industries was charged with fraud,
 148 corruption, bribery, racketeering, violations of the fisheries law and customs offences. In the
 149 U.S., the directors were found guilty of violating the Lacey Act (which renders it illegal to
 150 introduce into the U.S. any fish or wildlife taken in contravention of the laws of another
 151 country) as well as smuggling and conspiracy and were sentenced to imprisonment and
 152 forfeiture. A U.S. court initially awarded the South African government around \$22.5 million
 153 in restitution for damages,²⁵ (although investigators struggled to locate and freeze the main
 154 director's assets to secure the restitution amount), and in September 2018, some 15 years
 155 later, a final settlement agreement of \$7.5 million was ordered.

156

157 The above examples shed a light on how the various elements of organized crime may
 158 aggregate in a sophisticated criminal operation in a commercial fisheries context and the
 159 associated law enforcement challenges. It should be noted that the examples are merely
 160 illustrative and are not intended as representative of how organized crime in fisheries
 161 necessarily unfolds, including in the context of vulnerable coastal communities; examples of
 162 the latter are discussed later in this review.

163

164

165 **Organized crime in the fisheries sector as an impediment to a sustainable ocean** 166 **economy**

167

168 The pursuit of a sustainable ocean economy requires balancing use of the ocean space and its
 169 resources with the long-term carrying capacity of the ocean's ecosystems.²⁶ In line with the
 170 three-pillared concept of sustainable development under the Rio process, a sustainable ocean
 171 economy is premised on the sustainable use of the ocean from an economic, social and
 172 environmental perspective.²⁷ Agenda 2030 (adopted at the United Nations Sustainable
 173 Development Summit on 25 September 2015) extends the three dimensions of sustainability
 174 to five areas of critical importance, namely, people, prosperity, peace, partnership, and planet,
 175 which should inform synergized inter-agency policy interventions towards achievement of the
 176 Sustainable Development Goals (SDGs).

177

178 Organized crime in the fisheries sector has the potential to severely undermine states' efforts
 179 to achieve a range of SDGs, including "zero hunger" (SDG 2), "decent work and economic
 180 growth" (SDG 8), "responsible consumption and production" (SDG 12), and "life below
 181 water" (SDG 14). SDG 16 "peace, justice and strong institutions" is a core enabler of the
 182 other SDGs²⁸, and the targets found in SDG 16 find particular resonance in the context of
 183 addressing manifestations of organized crime in fisheries²⁹. This has particular resonance in
 184 vulnerable coastal communities with few alternative livelihood options, rendering them

185 susceptible to recruitment by organised criminal networks.

186 Below we introduce the most common serious offences that may comprise manifestations of
 187 organized crime in the fisheries sector. Illustrative examples are cited to highlight how the
 188 impacts of these crimes may impede the pursuit of a sustainable ocean economy. The cited
 189 examples underscore how the various types of crimes are crosscutting and thus, when they
 190 converge on the ground, particularly in vulnerable communities, may give rise to a range of
 191 complex adverse impacts.

192 **Fraud**

193 A large amount of documentation is produced along the fisheries value chain creating
 194 significant potential for fraud (that is, deliberate misrepresentation or concealing of facts for
 195 undue benefit)³⁰. For example, in the *Viking* case, false vessel registration documents were
 196 submitted at port comprising text clearly cut and pasted from Google translate and using
 197 ordinary word processing software³¹. Fishing vessel identity fraud take place when a vessel's
 198 identity is changed by, for example, not flying the correct flag at port, or physically hiding a
 199 vessel's name to render it anonymous³². This is associated with "flag-hopping", a pattern of
 200 re-registering a vessel with new flag states to confound investigations into its illegal
 201 operations, as with the *Viking*³³.

202 Fraudulent practices harm the reputation both of the legitimate fishing industry and the flag
 203 state in question. Further, fraudulent fishing licences deprive coastal states of revenue due
 204 from the legitimate allocation of fishing rights.

205 On the basis of fraudulent landing certificates, Trinidad and Tobago is cited as the world's 6th
 206 largest shark fin exporter to Hong Kong³⁴; the fins, in fact, are landed from foreign fishing
 207 vessels and merely transit Trinidad and Tobago ports,³⁵ contributing to the global
 208 international illegal trade of shark fins.³⁶ Also, in 2014, Trinidad and Tobago was cited by the
 209 Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) as
 210 trading in Patagonian Toothfish contrary to the region's fisheries management agreement, but
 211 it was discovered that the trade documents attached to the toothfish exports to Canada citing
 212 Trinidad and Tobago as the port of origin were fraudulent. Fraudulent practices can also give
 213 rise to food hygiene risks. At landing, for example, false customs and health documentation
 214 can disguise the origin of the catch or the flag of the vessel to avoid paying import tariffs or
 215 complying with food hygiene regulations³⁷.

216 In some instances, fish and fish products are fraudulently labelled to avoid paying higher
 217 customs duty on high value species, enabling tax crime³⁸ and thereby depriving coastal states
 218 of a further stream of economic revenue.

219 **Tax crime and money laundering**

220
 221 The fisheries sector lends itself to tax crime given the ease with which criminals can change a
 222 vessel's country of origin and identity and use fictitious companies as registered vessel
 223 owners; this facilitates channelling profits to shell companies in tax havens to avoid paying
 224 tax where the profit was generated³⁹. Tax havens ("secrecy jurisdictions") are jurisdictions
 225 that lack transparency around the beneficial ownership of bank accounts and companies,
 226 making it particularly difficult to identify and prove tax crime.

227
 228 Tax crime covers a range of violations of tax and revenue rules that are criminalized in law.
 229 The loss of tax revenue via tax crime in fisheries is estimated to be significant, severely
 230 undermining the development benefits of the sector, particularly adversely impacting states in
 231 the Global South⁴⁰. In Indonesia, an audit of 187 fishing companies by the Tax Directorate
 232 General in 2016 identified potential unpaid tax revenue of around IDR 235 billion (more than
 233 \$16 million). The introduction of law enforcement and policy reform in Indonesia against
 234 fisheries crime has contributed to significant increase in tax revenue from the fisheries sector
 235 (\$113 million in 2018)⁴¹ (along with an increase of fish stocks⁴²).

236
 237 Money laundering (the intentional concealing or disguising of the illicit origins of the
 238 proceeds of crime)⁴³ is a manifestation of tax crime and may also be an indication of
 239 corruption. Organized criminal networks engage in money laundering in the fisheries sector
 240 to integrate the proceeds of crimes committed along the fisheries value chain, or the proceeds
 241 from illicit activities outside the sector,⁴⁴ into the legitimate economy⁴⁵. Money laundering
 242 hampers investigations into organized crime in the fisheries sector and frustrates prosecution,
 243 including asset recovery, forfeiture of the proceeds of the crime and restitution of illicit gains.
 244 In Russia, for instance, the “crab mafia”⁴⁶ has been linked to money laundering (as well as
 245 illegal fishing and even assassinations of high-ranking public officials and competitors)⁴⁷.
 246 Many offences committed by organized crime groups in fisheries are “predicate offences”
 247 (offences that are a component of a “primary” crime) to money laundering. In Indonesia,
 248 fisheries crime is cited as a predicate offence under the Prevention and Eradication of Money
 249 Laundering (Anti Money Laundering) Law⁴⁸.
 250

251 **Corruption**

252
 253 Although there is substantial anecdotal evidence of corruption in the fishing industry, and it is
 254 suspected as an enabling factor of many other crimes in the sector, there is limited formal
 255 literature, and few decided cases, on the subject.⁴⁹ Corruption is the giving, soliciting or
 256 receiving of any undue advantage that is aimed at causing an official to act or refrain from
 257 acting⁵⁰. This can include, for example, political figures or senior government officials using
 258 their positions to influence the allocation of fishing licenses to companies in which they have
 259 a personal business interest (“abuse of function”)⁵¹. An illustrative case currently under
 260 investigation involves an Icelandic fishing company that allegedly used a bank of a
 261 neighbouring country and shell companies in the Pacific to channel bribes to obtain fishing
 262 licenses in Namibia.⁵²

263 Corruption may take the form of bribes paid to reduce penalties⁵³, to ignore illegal harvesting
 264 of fish⁵⁴, or to endorse landing data that is clearly false, as occurred in the Rock Lobster case.
 265 Bribery may extend throughout the criminal supply chain, as in a San Diego case where it
 266 was alleged that a U.S. company brought approximately \$17 million worth of sea cucumber
 267 from Mexico into the U.S by illegally bribing officials along the entire supply chain⁵⁵.

268 Corruption in the fisheries sector diverts revenue due to states to the “shadow economy” and
 269 severely undermines advancement towards achieving SDG 16, in particular the goal to
 270 substantially reduce corruption and bribery.

271 **Drug trafficking**

272 Fishing vessels are ideal modes of transport for the movement of drugs given their legitimate
 273 presence at sea, the lack of transparency around their movement, identity and ownership, and
 274 their ability to tranship and access small harbours. The use of fishing vessels to facilitate drug
 275 trafficking (the illicit trade of substances that are subject to drug prohibition laws⁵⁶) is well
 276 documented: as mother ships from which smaller vessels traffic drugs; as support vessels for
 277 go-fast boats transiting trafficking routes (e.g. in the Caribbean); or smaller fishing vessels
 278 may traffic drugs directly to and from coastal landing sites and tranship the drugs to mother
 279 ships beyond coastal jurisdiction⁵⁷, for example in the Gulf of Guinea⁵⁸.

280 Fishing vessels may traffic drugs in conjunction with transporting other illicit goods as well
 281 as with the smuggling of migrants. In Trinidad and Tobago, for example, artisanal fishing
 282 vessels transport drugs and guns from Venezuela to Trinidad and Tobago as well as illegal
 283 migrants and in Jamaica, fishing canoes transport marijuana to Haiti where it is traded for
 284 illegal weapons (the “drugs-for-guns” trade) or cocaine⁵⁹. In the Gulf of Guinea, in 2006, a
 285 fishing vessel, *MV Benjamin*, flying a Ghanaian flag, trafficked about 78 parcels (2,340 kg) of
 286 cocaine into Ghana labelled as shrimps⁶⁰.

287 There is evidence of a close connection between poaching of some high value species and
 288 drug trafficking networks in certain parts of the world. In South Africa, for example, poached
 289 abalone is bartered with local gangs for the ingredients to manufacture the synthetic drug
 290 “Mandrax” as part of organized criminal networks illegally exporting abalone to the East⁶¹. In
 291 Mexico, an intricate transnational poaching and drug and human trafficking network controls
 292 the supply chain of illegally harvested Totoaba bladders, which are exported to China⁶². In
 293 Colombia, organized drug trafficking in the fisheries sector interfaces with a range of inter-
 294 related offences including trafficking of illegal arms, human trafficking, smuggling of fuel
 295 and other contraband, large scale illegal fishing, and wildlife trafficking, requiring
 296 coordinated operations between the national police, navy and air forces⁶³.

297 The influx of drugs via sea, often in conjunction with illicit arms, appears to have a range of
 298 negative impacts on the coastal communities they transit including a rise in levels of local
 299 violence and associated increased security costs for local businesses (e.g. Trinidad and
 300 Tobago⁶⁴), weakened social cohesion and sense of security (e.g. Yucatán Peninsula, Mexico,
 301 associated with the illegal sea cucumber fishery)⁶⁵ and increased gang-related activity, for
 302 example, in Jamaica⁶⁶. In South Africa research indicates that remote coastal communities,
 303 such as Bufellsjagbaai, are under siege by organized criminal gangs illegally accessing
 304 abalone on their doorsteps,⁶⁷ with women in the female-headed households becoming
 305 accomplices to organized poaching operations with the result that they are subject to criminal
 306 prosecution⁶⁸. Given the central role of communities in the supply chain of organized criminal
 307 networks, a community-based approach to complement a law enforcement response is
 308 arguably valuable and the community, likewise, has a potential preventative role to play.⁶⁹

309

310 **Crime in the labour market**

311

312 Forced labour – that is, work or services exacted from a person under the threat of a penalty
 313 and for which the person did not offer him or herself voluntarily⁷⁰ – is increasingly
 314 highlighted as pervasive in the fisheries sector globally. It is often a consequence of human
 315 trafficking⁷¹ or “trafficking in persons” (the procuring of and trading in human beings for the
 316 purposes of exploitation)⁷². The problem is documented in a growing body of literature⁷³ and
 317 is increasingly exposed in public media. For example, in 2017, employees of a Scottish
 318 family-owned company operating a fleet of scallop dredgers were arrested in Southern
 319 England after nine human trafficking victims were found on one of their vessels⁷⁴. In the port
 320 of Puntarenas, Costa Rican, police rescued 36 Asians who had been subjected to labour
 321 exploitation on two fishing boats in 2014, arresting four individuals who were charged with
 322 human trafficking.⁷⁵ In the fishing industry, indicators of forced labour include deception,
 323 physical and sexual violence, intimidation, retention of identity documents, withholding of
 324 wages, debt bondage and abusive working conditions⁷⁶. Recruitment agencies play a central
 325 role in facilitating human trafficking for forced labour.⁷⁷ In 2016, a foreign network operating
 326 out of north Norway in the Barents Sea crab fisheries was identified as making use of forced
 327 labour⁷⁸; allegedly a Seychelles recruitment agency, together with Norwegian port agents,
 328 facilitated the smuggling of migrant fishers from Indonesia to Norway.

329

330 Criminal networks in fisheries use forced labour to significantly cut costs and boost profits.⁷⁹
 331 In addition to the human rights implications, this results in unfair competition with legal
 332 operators, which, in turn, can influence legitimate fishing companies to breach domestic
 333 crewing-regulations in an attempt to remain competitive, such as in the Norwegian snow-crab
 334 sector⁸⁰ and in Russia⁸¹.

335

336 **Fisheries offences**

337 Illegal fishing (fishing in violation of fisheries laws and measures) may also be a criminal
 338 offence if it is criminalized under the law of the relevant jurisdiction. Some jurisdictions
 339 provide severe criminal penalties for fisheries offences, such as Norway, where grave
 340 offences attract a prison sentence of up to six years plus asset forfeiture. Illegal fishing is
 341 criminalized in many jurisdictions around the world, including Ghana, Indonesia and South
 342 Africa⁸². In practice, regardless of whether or not illegal fishing has been criminalized in a
 343 jurisdiction, IUU fishing is a strong risk indicator of fisheries crime⁸³.

344

345 The adverse impacts of large-scale over-fishing are well documented.⁸⁴ This includes severe
 346 negative impacts on the state of commercially exploitable fish stocks: 2009 data estimated
 347 that 18 percent of the global catch, valued at between \$10–23.5 billion, between 2000–2003
 348 was lost to illegal or unreported fishing⁸⁵. Latest FAO figures (2015 data) estimate that 59.9
 349 percent of the worlds' commercial fish stocks are now fully fished⁸⁶ and a third of global fish
 350 stock are over-exploited⁸⁷. As fish stocks decline, the resource becomes more valuable,
 351 attracting increasing involvement of transnational organized crime syndicates⁸⁸. Successful
 352 prosecution of organized networks can have positive effects on the targeted stocks, as
 353 illustrated by the Rock Lobster case, which resulted in the dramatic recovery of the targeted
 354 species (south coast rock lobster)⁸⁹.

355

356 Large scale illegal fishing can cause severe economic loss to coastal states: the combined
 357 annual economic loss due to illegal fishing to Mauritania, Senegal, Gambia, Guinea Bissau,
 358 Guinea and Sierra Leone, for example, are estimated at \$2.3 billion⁹⁰. A recent global study⁹¹
 359 estimates that between 7.7 and 14.0 million metric tons of unreported fish catches are
 360 potentially traded illicitly each year, suggesting that gross revenues of between US\$8.9 and
 361 US\$17.2 billion are annually redirected out of the legitimate market through illicit trade. Asia,
 362 Africa and South America, account for approximately 85% of total catch losses to likely illicit
 363 trade globally. Africa is estimated to experience between US\$7.6 and US\$13.9 billion and
 364 US\$1.8 and US\$3.3 billion losses annually in economic and income impacts, respectively,
 365 due to the redirection of catches from legitimate to illicit seafood trade.⁹²

366

367 In fishing communities with few alternative livelihood options, low-level poaching may
 368 morph into, or co-exist alongside, organized criminal activity. In South Africa, this is evident
 369 in the context of abalone and west coast rock lobster, where the boundaries between 'protest
 370 poaching', opportunistic poaching and facilitation of, or involvement in, organized criminal
 371 activity, are porous and often overlap.⁹³ The overexploitation of west coast rock lobster,⁹⁴ for
 372 example, has led to thousands of subsistence fishers being unable to secure sufficient quotas
 373 with the result that some have turned to illegal alternative income-generating activities⁹⁵.

374 The UN Special Rapporteur on the Right to Food⁹⁶ has underscored the imperative of
 375 curtailing illegal fishing to prevent its further adverse impact on food security. Fisheries
 376 provide an estimated 17 percent of animal protein consumed worldwide, with the highest per
 377 capita consumption in small island developing states⁹⁷. In the West African region of the Gulf
 378 of Guinea, where around 40 percent of the population reside in coastal areas, fish is the
 379 predominant (and sometimes, only) source of animal protein consumed in coastal
 380 communities⁹⁸. In Jamaica, where large scale over-fishing has left most reef fish stocks over-
 381 exploited⁹⁹, the country is almost entirely dependent on imported fish for domestic
 382 consumption.

383

384 The marine environment and associated ecosystems may also be negatively impacted by
 385 organized crime in fisheries: piracy and armed robbery at sea in the Gulf of Guinea pose
 386 threats to the marine environment via the risk of oil or chemical spills caused by the use of

387 destructive weapons to attack vessels and the transfer of the targeted vessel's cargo¹⁰⁰. In
 388 Nigeria, some local fishers struggling to sustain their livelihoods engage in illegal fishing in
 389 the vicinity of oil pipeline installations, which risks causing oil leaks and marine pollution¹⁰¹.
 390 In Mexico, fishers adversely affected by the poorly regulated governmental conservation
 391 measures in the Gulf of California have turned to totoaba poaching for lack of legitimate
 392 alternative livelihoods¹⁰². The use of gill nets in this illegal activity has brought the vaquita
 393 porpoise (caught as by-catch) to the brink of extinction and resulted in severe damage to the
 394 large marine ecosystem of the Upper Gulf of California¹⁰³. Illegal dynamite ("blast") fishing,
 395 associated with explosives trafficking, off the Tanzanian coast is highly destructive to the
 396 affected marine habitat, including coral reefs, and fish stocks, with broader food security
 397 ramifications¹⁰⁴.
 398

399 **Smuggling**

400
 401 The fishing industry provides ideal cover for smuggling of otherwise legal goods from one
 402 jurisdiction to another in violation of the law (often to avoid customs duties). In Ecuador, for
 403 example, artisanal fishers smuggle subsidized Ecuadorian fuel to the neighbouring coast of
 404 Colombia, where it is sold at considerable profit¹⁰⁵ and Trinidad and Tobago fishing vessels
 405 have been implicated in the illegal trade of fuel. Ghana is reportedly at risk of losing about
 406 GHS 1.5 billion (\$300 million) to the smuggling of fuel, which is trafficked by fishing vessels
 407 and canoes.¹⁰⁶ Fuel is often smuggled alongside illicit goods, such as drugs, illegal weapons
 408 and illegally harvested fish, as well as persons¹⁰⁷.

409
 410 The use of fishing vessels to smuggle migrants (that is, to facilitate or assist migrants to enter
 411 a country illegally for financial or material benefit¹⁰⁸) is alleged to be prevalent, but is less
 412 well documented formally. Public media reports that artisanal fishing vessels are the mode of
 413 transport to traffic migrant women from South American to Trinidad and Tobago, where
 414 some are forced into prostitution and others transit to the U.S.¹⁰⁹. There are also indications
 415 that fishing vessels are linked to migrant smuggling in the Mediterranean,¹¹⁰ Australia¹¹¹ and
 416 Thailand¹¹².
 417

418 **Security threats at sea**

419 Various offences occurring at sea present a threat to peace and security; this can include
 420 offences falling within the ambit of organized crime in fisheries. 'Fisheries conflicts', that
 421 may arise from a combination of factors, including illegal fishing (along with climate change
 422 and food security concerns), are recognised as a potential threat to maritime security and
 423 livelihoods and there is a growing body of literature on the topic.¹¹³ In the Gulf of Guinea,
 424 numerous organized criminal activities at sea threaten peace and security, including piracy
 425 and armed robbery, kidnapping for ransom, fuel and gas robbery and smuggling, drugs and
 426 arms trafficking and illegal fishing¹¹⁴. This adversely impacts the economic bases of the
 427 region's states via, e.g., increased insurance premiums for cargo vessels, which hinders the
 428 movement of goods and services, resulting in lost income for businesses and governments and
 429 a rise in goods and services¹¹⁵. In Nigeria, for example, piracy and armed robbery at sea is
 430 associated with a diminished GDP contribution from domestic fishing sector as fewer
 431 licensed fee-paying vessels are willing to go to sea¹¹⁶. Furthermore, coastal fishers who fear
 432 putting out to sea in Nigeria due to violent attacks from illegal fishing vessels have been
 433 recruited by organized criminal networks engaging in armed robbery at sea and oil-
 434 smuggling,¹¹⁷ and fishmongers — who are predominantly women — have in some instances
 435 turned to prostitution to make ends meet¹¹⁸.

436

437 A recent Security Council Resolution expressed concern over the links between international
 438 terrorism and organized crime, including transnational organized crime at sea¹¹⁹. The Security

439 Council has further highlighted the “complex relationship” between large-scale illegal fishing
 440 and the international crime of piracy (defined in the UN International Law of the Sea)¹²⁰, in
 441 Somali waters in the Indian Ocean¹²¹; a similar link has been argued in the case of Southeast
 442 Asia¹²².

443

444 **Challenges and positive practices**

445

446 **Challenges**

447 There are a number of globally identifiable law enforcement challenges concerning
 448 identifying, investigating and successfully prosecuting organized crime in the fisheries sector.
 449 Below we cite those commonly underscored in reports and outcome documents from expert
 450 group meetings and relevant international gatherings, which draw on operational experience.

451

452 • Low national prioritization of organized crime in fisheries at political and operational
 453 levels: “In many countries, crime linked to the fisheries value chain will not be
 454 investigated because it is not seen as a major priority and it is difficult to
 455 investigate”¹²³;

456 • Lack of coordination between government departments and agencies nationally and
 457 cross-border¹²⁴;

458 • Inadequate criminal and criminal procedural legislative frameworks¹²⁵;

459 • Lack of clarity of jurisdiction at sea and extra-territorial jurisdiction: as a result,
 460 fisheries crime at sea (beyond national waters) is often not investigated or
 461 prosecuted¹²⁶;

462 • Lack of law enforcement agency and criminal justice capacity and skills, particularly
 463 around associated financial investigations¹²⁷; and

464 • Lack of transparency in the fisheries sector and financial sector¹²⁸.

465

466 **Positive practices**

467

468 The complexity of organized crime in fisheries, the potential harm it may cause, and the
 469 resources needed to combat it, all suggest that any strategy should place great emphasis on
 470 crime prevention. In this regard, identifying socio-economic drivers of criminal activities is
 471 key, including increasing knowledge of demand-driven markets, along with crime disruption
 472 strategies and robust legislative frameworks that criminalize serious offences and attach
 473 sufficiently deterrent penalties. As evidence suggests that many criminal networks have
 474 already manifested themselves in the fisheries sector, the section that follows thus focuses on
 475 enforcement responses, rather than preventative measures. That said, it is worth underscoring
 476 that in vulnerable coastal communities, in particular, strengthening the inhabitants’ capacity
 477 to withstand the intrusion of organized criminal activities is a valuable complement to any
 478 law enforcement response¹²⁹. As administrative measures alone are inadequate to deter the
 479 illicit operations of criminal networks – the networks absorb such penalties as part of their
 480 business models –¹³⁰ it is important to identify effective means to address their activities,
 481 underpinned by robust cooperative criminal law enforcement and criminal procedural efforts.
 482 Below, we cite some promising practices globally in this regard which, subject to critical
 483 analyses, potentially offer ideas for practical ways forward.

484

485 • Inter agency cooperation at national level

486 Countries employ different cooperative inter-agency enforcement models to address
 487 organized crime in fisheries. Indonesia, for example, uses a ‘single-roof’ enforcement agency
 488 bringing together five enforcement agencies (the Ministry of Marine Affairs and Fisheries,
 489 the Navy, the Marine Police, the Coast Guard, and the Attorney-General’s Office) under the
 490 Minister of Marine Affairs and Fisheries; Norway’s National Advisory Group on Fisheries
 491 Crime and IUU Fishing (Fiskeriforvaltningens Analysenettverk), brings together

492 representatives from the coast guard, the police, fisheries, maritime, tax, customs and labour
 493 authorities, regularly to discuss fisheries cases; and Tanzania’s multi-agency task team on
 494 environmental and wildlife crime (MATT), led by the Ministry of Home Affairs along with
 495 the Ministries of Livestock and Fisheries Development, the Ministry of Energy and Minerals,
 496 the Ministry of Natural Resources and the Tanzanian Police Force, coordinates efforts to
 497 target fisheries crime in the region¹³¹. The Copenhagen Declaration underscores the
 498 imperative of effective inter-agency cooperation; critical research on suitable governance
 499 models would be desirable.

500 • Regional and global cooperation

501 Given the transnational nature of organized crime in the fisheries sector, cross-border
 502 cooperation is imperative in investigations, including via the use of mutual legal assistance,
 503 INTERPOL tools, and judicial requests to cooperate with other countries. The value of such
 504 collaboration was highlighted in the *Viking* case, in which Indonesia invited a multilateral
 505 team of experts and INTERPOL to help facilitate information sharing and analysis.
 506 Successful cross-border investigative cooperation also facilitated prosecution in the Rock
 507 Lobster case.

508 • Law reviews and reforms

509
 510 Many jurisdictions criminalize fisheries offences and attached harsh deterrent penalties. For
 511 example, the Ghanaian courts may impose a maximum penalty of two years imprisonment for
 512 the illegal export of fish under the terms of the 2002 Fisheries Act and, in South Africa,
 513 violations of most provisions of the 1998 Marine Living Resources Act are a criminal
 514 offence, attracting a fine of up to ZAR 5 million (USD. 338 000). Legislation criminalizing
 515 other offences falling under the fisheries crime umbrella is also valuable, such as Indonesian
 516 Law 25/2003 on the Crime of Money Laundering, as is organized crime legislation such as
 517 South Africa’s 1998 Prevention of Organized Crime Act, which criminalizes racketeering and
 518 triggers asset forfeiture. The introduction of legislation against human rights abuse on fishing
 519 vessels is gaining traction: e.g., in February 2019, Thailand ratified the ILO Work in Fishing
 520 Convention No. 188 with a view to amending existing laws in lights of its provisions¹³².

521
 522 • Capacity building and skills training in the criminal justice system

523 Capacity building can hone enforcement efforts against organized crime in fisheries.
 524 Indonesia and Norway, for instance, offer professional accredited training in this regard via
 525 the International FishFORCE Academy of Indonesia (established in December 2016) and the
 526 Norwegian Police University College (since 2010) respectively. Particularly valuable also is
 527 the enhancement of skills to conduct financial investigations pertaining to organized criminal
 528 activities in the fisheries sector¹³³.

529

530 • Information exchange and awareness raising

531 International networks that facilitate information exchange (mindful of data protection law
 532 and principles)¹³⁴ and intelligence-led law enforcement efforts enhance law enforcement skills
 533 to address organized crime in fisheries. International government organizations and
 534 international knowledge-sharing symposiums can facilitate this. Legitimate businesses in the
 535 fishing industry should also be made aware of organized crime in the sector to encourage
 536 corporate social responsibility (CSR)¹³⁵ practices that improve transparency in the supply
 537 chain. Illustrative examples exposed in the media – such as the Guardian’s 2014 revelation
 538 that the world’s largest Thailand-based prawn farmer was purchasing fishmeal for its prawns
 539 from suppliers linked to fishing vessels using human trafficking for forced labour and selling
 540 the prawns to the public via top retailers¹³⁶ – have heightened public demand for improved
 541 transparency of seafood production practice. Civil society can play a role in influencing the

542 substantive content of CSR practices and holding companies accountable for their
543 implementation¹³⁷.

544
545
546

547 **Opportunities for action**

548

549 With notable exceptions, the world community remains ill-informed that transnational
550 organized crime in fisheries is a distinct problem alongside unsustainable global fisheries
551 harvesting practices. States are thus largely unaware of the most suitable legal tools to address
552 organized crime in fisheries and, further, that these measures differ from (yet compliment)
553 instruments aimed at improved fisheries management. We suggest that states should first
554 develop a common understanding of organized crime in the global fishing industry at a
555 political level. Thereafter, at an operational level, they should identify and implement suitable
556 technical and practical measures to address the challenge. The suggestions below are
557 formulated as contributions towards the ‘solutions-oriented Report’ of the High Level Panel
558 for a Sustainable Ocean Economy, the content of which is guided by pragmatism, cost-
559 effectiveness and political feasibility.¹³⁸ To this end, they do not purport to suggest actions
560 aimed at addressing the drivers of organized crime in fisheries; however, effectively
561 addressing organized crime in fisheries will facilitate the achievement of a number of UN
562 SDGs goals, which, in turn, may contribute to reducing the prevalence of involvement in
563 organized crime in fisheries, particularly amongst vulnerable coastal communities.

564

565 In sum, to address organised crime in the fisheries sector, action in two stages is required:

566

- 567 1. A common understanding of transnational organized crime in the fisheries sector at a
568 global level is needed, coupled with political will to cooperatively address the
569 challenge.
- 570 2. Political will must be translated into action via states harnessing practical tools to
571 strengthen their law enforcement capacity to effectively tackle organized crime in the
572 fisheries sector.

572 In more detail, we suggest the following actions should be taken:

573 1. States should be encouraged, at first instance, to:

574

- 575 • Report to the UN General Assembly in response to the call made by UN GA
576 Resolution 63/112 to examine connections between illegal fishing and organized
577 crime in fisheries;
- 578 • Raise the security implications of transnational organized crime in fisheries at the UN
579 Security Council;
- 580 • Formally support the 2018 International Declaration against Transnational Organized
581 Crime (the Copenhagen Declaration);
- 582 • Report annually on transnational organized crime in fisheries to the UN Commission
583 for Crime Prevention and Criminal Justice (CCPCJ) and
- 584 • Participate in regular international knowledge-sharing forums on organized crime in
585 fisheries.

586 2. Thereafter, at a practical level, drawing on the positive practices identified above, armed
587 with a common understanding of the problem, and drawing on best available knowledge,
588 states should be encouraged to:

589

- 590 • Strengthen national inter-agency cooperation;
- 591 • Enhance cross-border cooperation;
- 592 • Provide for enabling legal frameworks;
- Improve criminal law enforcement capacity and skills;

- 593 • Strengthen community-based crime prevention, with a focused on gendered
- 594 implications, which will in turn strengthen the resilience of vulnerable coastal
- 595 communities and their ability to respond to organized fisheries crime;
- 596 • Facilitate civil society engagement with the fishing industry on CSR; and
- 597 • Support increased publishable research on organized crime in the fisheries sector.

598
599

600 **3 Outlook**

601

602 There is ample anecdotal, scientific and case-based evidence of the many manifestations of
603 organized crime in the fisheries sector and its widespread adverse impacts on economies,
604 societies and the environment, including its broader security implications. This review shows
605 that organized crime in the fisheries sector is wide spread in the sense that it is not restricted
606 to specific geographical locations but, rather, examples are found globally. That said,
607 criminals will tend to seek out the most vulnerable regions of the world in which to conduct
608 their activities, and fisheries crime thus appears to most adversely impact the coastal
609 populations of states with limited resources to prevent and combat it.

610

611 There is a noticeable knowledge deficit with regards to the scale of organized crime in the
612 fisheries sector. To date there is no publicly available statistical data estimating the extent of
613 organized fisheries crime or mapping incidents of its location at a global level. Existing
614 scientific output and data on criminality in the fisheries sector speak almost exclusively to
615 illegal or unreported fishing, which does not take into account the range of criminal offences
616 that occur throughout the fisheries value chain. There is a need to gain further scientific and
617 criminological knowledge of the dynamics and scale of organized fisheries crime and the
618 criminal networks involved therein, including data on the offences in which they engage, in
619 order to identify, evaluate and implement the best measures to address the drivers thereof.

620

621 Organized crime in the fisheries sector has the potential to severely undermine the premises
622 for a sustainable ocean economy with notable adverse social, economic and environmental
623 implications. The problem is recognized as sufficiently severe to warrant states' mobilization
624 to take political action. The rate at which support of the Copenhagen Declaration is gaining
625 momentum, particularly amongst states from the Global South, attests to the fact that states
626 are increasingly acknowledging the existence, extent and adverse impacts of organized
627 fisheries crime. Further, states acknowledge that a failure to effectively address organized
628 fisheries crime will result in a widespread inability to fulfill among others the SDG 16 goal of
629 'peace, justice and strong institutions' and, ultimately, will hinder the realization of a
630 sustainable ocean economy. A next important step will be for states supporting the
631 Declaration to identify practical measures to operationalize their political commitments on the
632 ground.

633

634

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636

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641

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643

644 **Author contributions:**

645

646 EW is the first co-lead author: she was originally approached by the High Level Panel for a
647 Sustainable Ocean Economy to lead the commissioned Blue Paper 16 on Organized Crime in
648 the fisheries sector; she was tasked with the responsibility of appointing co-lead authors and
649 contributing authors and delivery of the final product. She crafted the substantive text for the
650 original draft framework paper, assigned writing roles and thereafter coordinated all
651 substantive input. She further provided input on organized crime in fisheries in the South
652 African context. This review is based on the Blue Paper 16; EW led its substantive
653 reformulation.

654 MAS is the second co-lead author. He provided substantive input to the draft framework
655 paper, with specific reference to Indonesian examples, assisted in shaping the content of the
656 paper and provided support throughout the writing process. He contributed to the
657 reformulation of this review.

658 KD-A is the third co-lead author. He provided substantive input to the draft framework paper,
659 with specific reference to Gulf of Guinea examples and with particular input on maritime
660 security concerns in the context of organized crime in the fisheries sector, assisted in shaping
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662 to the reformulation of this review.

663 GH is an invited contributing author. She provided substantive input on sections of the Blue
664 Paper concerning financial crime in the fisheries sector.

665 YH is an invited contributing author. He provided substantive input on sections of the Blue
666 Paper concerning money laundering in the fisheries sector, specifically in the Indonesian
667 context.

668 SM is an invited contributing author. She provided substantive input on sections of the Blue
669 Paper concerning organized crime in the fisheries sector in the Caribbean context.

670 IO-Y is an invited contributing author. She provided substantive input on sections of the Blue
671 Paper concerning the impact of organized crime in the fisheries sector on coastal
672 communities, particularly in the Nigerian and in the broader Gulf of Guinea context.

673 IAQ is an invited contributing author. She provided substantive input on sections of the Blue
674 Paper concerning the interface between environmental crime and organized crime in the
675 fisheries sector in the Mexican context.

676 OS is an invited contributing author. He provided substantive input on sections of the Blue
677 Paper concerning organized crime in fisheries in the context of Colombia.

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