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Fishy business: regulatory and enforcement challenges of transnational organised IUU fishing crimes

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Abstract

The article aims to find the answer on the main question of how can the criminalisation of IUU fishing, especially when committed by OCGs, under suppression conventions tackle the deficits of regulations and enforcement at the international and national levels? These deficits have origin in the limited prescription by international fisheries instruments and a large autonomy and discretion of states leading to substantive divergent policies, legal framework and practices at the national level. Further, the actual international fisheries instruments do not provide for regulatory and enforcement solutions in relation to the involvement of OCGs in IUU fishing. We argue that suppression conventions at global and regional levels could serve as solutions to supplement the deficits. In explaining the argument, first we examine the phenomenon of IUU fishing and its TOC dimensions, and the significant harms caused by it. Second, we examine the regulations and enforcement provisions of international and national fisheries instruments to establish the deficits. Third, we elaborate why suppression conventions are suitable solutions. Fourth, we analyse how suppression conventions can be regulated at global and regional levels in a way that they tackle the deficits. The results of this study can be used as a reference on how a transnational crime can be criminalised under suppression conventions both in terms of its reasonings and options and thus can contribute to the study of transnational criminal law. This study is important for transnational criminal law scholars, policy makers and practitioners in the field of enforcement.

Keywords IUU fishing · Transnational organised crime · Organised criminal groups · Suppression conventions · Transnational criminal law

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Introduction

The literature on Illegal, Unreported and Unregulated (IUU fishing)[1] has mainly focused on the discussions on the regulations and enforcement of IUU fishing as a fisheries conservation and management problem and much less on the involvement of Organised Criminal Groups (OCGs) in IUU fishing. A vast body of literature can be found on IUU fishing as a fisheries conservation and management problem including those by Caddell and Molenaar (2019), Kaye (2016), Palma-Robles (2016), Klein (2011), Palma et al. (2010), and Hey (1999). The existing literature mainly centred their discussions on the provisions and its applications provided by international and regional fisheries instruments that relate to IUU fishing including the UNCLOS,[2] the Compliance Agreement,[3] the UNFSA,[4] the IPOA-IUU,[5] the PSMA[6] and those by different Regional Fisheries Management Organisations (RFMOs). These provisions provide the basis for the adoption and implementation of different preventive and enforcement measures for coastal, flag, and port states which are relevant to tackling IUU fishing.[7]

The existing vast literature of IUU fishing discussed above has touched very little on the involvement of OCGs in IUU fishing. This is understandable since the phenomenon of OCGs in IUU fishing has just only recently received attention. A number of legal and criminology literatures have presented the involvement of OCGs in IUU fishing activities such as those by the United Nations Office on Drugs and Crime (UNODC 2020), Petrossian (2019), C4ADS (2018), Martinez and Martinez (2018), Van Uhm and Siegel (2016), Warchol and Harrington (2016), Goga (2014) and Liddick (2014). In one example, Van Uhm and Siegel (2016) exhibited the connection between Russian OCGs and the illicit trade of caviar around the Caspian Sea. Another example by Warchol and Harrington (2016) presented the involvement

[1] Illegal, Unreported and Unregulated (IUU) fishing can be understood generally as fishing activities that violate or undermine national, regional, and international fisheries regulations and also the measures of Regional Fisheries Management Organisations (RFMOs). See also description of IUU fishing provided in Paragraph 3 of the International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU).

[2] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 71 (UNCLOS).

[3] Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (adopted 24 November 1993, entered in force 24 April 2003) 2221 UNTS (Compliance Agreement).

[4] Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (adopted 4 August 1995, entered in force 11 December 2001) 2167 UNTS 3 (UNFSA).

[5] FAO, 'International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing' (FAO 2001) (adopted 2 March 2001, endorsed 23 June 2001) (IPOA-IUU).

[6] Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing' (opened for signature 22 November 2009, entered into force 5 June 2016) (PSMA).

[7] Some common measures can be found in these instruments including authorisation to fish, fishing vessel registration, denial of entry into port, boarding and inspection, and application of sanctions.

of Chinese OCGs in the illegal abalone trade in South Africa. These studies have presented the existence of OCGs in IUU fishing activities.

A limited number of literatures has recognised the need to address the involvement of OCGs in IUU fishing and in other environmental crimes and proposed several solutions including by categorising IUU fishing as a TOC and applying criminal law. Authors including Chapsos and Hamilton (2019), Yuliantiningsih et al. (2018), Vervaele (2016), Bondaroff et al. (2015) and Telesetsky (2015) are in this category. This article aims to contribute to the literature relates to the OCGs involvement in IUU fishing by exploring the phenomenon and offer possible solutions relating to regulations and enforcement through the application of suppression provisions at global and regional levels.

This research is a legal study aimed to find the answer to how IUU fishing can be criminalised under suppression conventions. The methodology of this research is doctrinal legal research (Hutchinson and Duncan 2012). The doctrinal legal research is carried out through the interpretation and examination of existing regulations and legal and criminology literature review which are used to answer the main question: How can the criminalisation of IUU fishing, especially when committed by OCGs, under suppression conventions tackle the deficits of regulations and enforcement at the international and national levels?.

The article starts with a short overview of IUU fishing ((its conditions, harms and its linkage with transnational organised crime (TOC)) before continues to the discussions on the deficits of international and national fisheries instruments. In explaining the international instruments deficits, an analysis of international fisheries instruments, i.e. the UNCLOS; the Compliance Agreement, the UNFSA, the IPOA-IUU, and the PSMA is conducted to establish the regulations and enforcement deficits of international fisheries instruments in addressing the TOC dimensions of IUU fishing. These instruments have been selected because they represent the global regime of fisheries conservation and management measures covering coastal, flag and port states.

For the national deficits, the study examines Indonesia and Vietnam as national case studies. Both countries have been selected due to two reasons. First, they have significant positions in the global marine capture production where Indonesia ranked 3rd and Vietnam ranked 7th in the global marine capture producers (FAO 2020: 13) and thus have substantial interests in complying with international fisheries instruments. Second, both countries suffer from rampant IUU fishing, but under two different sets of circumstances. On the one side, Indonesia represents the "victim" of the involvement of OCGs in IUU fishing, where many of its fish stocks are plundered causing significant harm to the country. However, it is also acknowledged that Indonesian vessels are also involved in IUU fishing operations, although it is not as massive as Vietnam. On the other side, although Vietnam is represented as both a victim and "perpetrator" of IUU fishing where many of its vessels are engaged in transnational IUU fishing, causing harm and concerns in the affected countries. The two case studies will inform how in practice, IUU fishing is transnational both in its operations and actors. Thus, a purely national solution is not visible, and solutions should be at regional and global level. Both case studies will also inform that national regulations are divergent and many of them do not address the involvement

of OCGs in IUU fishing. This too, justify the need for regional and global solutions to harmonise regulations against OCGs involvement in IUU fishing to limit their operations. Based on the findings on the deficits of the global and national fisheries instruments, this article then concludes with proposals for solutions at global and regional levels.

IUU fishing conditions and harms

It was estimated that IUU fishing produces between 11–26 million tonnes of fish each year and it has been escalating for the past 20 years (Agnew et al. 2009: 1). The Pew Charitable Trusts states that IUU fishing accounts for more than 1,800 lb of wild-caught fish stolen from the world's seas every second (The Pew Charitable Trusts 2013: 1). The United States Coast Guard, in its 2020 IUU Fishing Strategic Outlook, estimates that one in five fish caught around the world could have originated from IUU fishing (The United States Coast Guard 2020: 3). The increasing trend of IUU fishing has made the United Nations General Assembly (UN Doc A/RES/74/18: para 80) recognise it as "…one of the greatest threats fish stocks and marine ecosystems and continues to have serious and major implications for the conservation and management of ocean resources, as well as the food security and the economies of many States, particularly developing States …". Due to the extensive scale and coverage of the operations, the significant harms caused and the involvement of OCGs, IUU fishing can be considered as a global crime (Petrossian 2019).

A closer look at the practice of IUU fishing can also be seen from a regional setting. In Southeast Asia, for example, the problem of IUU fishing has become one of the major maritime challenges in the region. The issue is acknowledged by Southeast Asian countries, where they underlined that "IUU fishing is a serious concern and threatens the sustainability of the region's fisheries management and conservation measures, fishery resources and aquatic ecosystems, as well as economic viability and food security" (Southeast Asian Fisheries Development Center (SEAFDEC), 2016). A study by Petrossian (2019: 78–80) also acknowledges that "Unlike South America, Africa, and Europe where countries experience different degrees of illegal fishing, countries in Southeast Asia are equally vurnerable to very high degress of illegal fishing".[8] Williams (2013: 259) argues that although there are no accurate estimates as to the extent of IUU fishing, the general levels may be drawn from Agnew et al. (2009) of three regions, namely, the Eastern Indian Ocean, the Northwest Pacific and the Western Central Pacific which covers the Southeast Asian waters. The study argues that the three regions had among the highest estimated percentages of IUU fishing globally, namely 32%, 33% and 34% respectively between

[8] Petrossian quantifies the degree into a range between 0 to 10. Very high degree refers to a range between 8 to 10. A score of "8" "refer to "there is a great deal of half as much of legal vessels fishing illegally in the country's waters" while a score of "10" indicates that "there are as many as or more than legal vessels fishing illegally in the country's waters". There are 22 countries identified as having "very high degrees" of illegal fishing, including Southeast Asian states i.e. Thailand, Myanmar, Vietnam, Indonesia, and the Philippines.

2000 and 2003 (Agnew et al. 2009), which reflect that IUU fishing has become a major problem for the region (Williams 2013: 259).

IUU fishing activities have resulted in harms to the economic, social, environmental and legal order aspects. The economic harms are estimated globally at USD10-USD23.5 billion per year (Agnew et al. 2009: 4). Meanwhile, in Asia, the region's loss has been estimated at between USD6 billion and USD20.75 billion per year, representing between 4.5 and 14.4 million tonnes (Bay of Bengal Large Marine Ecosystem (FAO/BOBLME Secretariat) 2015: 1). Numerous states have suffered from IUU fishing. For example, Indonesia loses between USD1.5 and USD4 billion while Vietnam loses between USD669 million and USD1.8 billion (FAO/BOBLME Secretariat 2015: 182, 390). States suffer losses of revenue at the national level from the fish that is illegally removed from the country to the loss of licensing fees and taxes (Meere and Delpeuch 2015: 36). The economic costs of IUU fishing could disrupt the development agenda particularly when the countries are heavily dependent on the fisheries sector (Meere and Delpeuch 2015: 36).

The harm principle posits that conducts which cause or may cause serious or significant harm to others provide a sufficient condition for state's intervention through criminal law and the determination of such categorisation is under the authority of the state (Peršak 2014: 15, 17). Harms are often seen from an anthropocentric perspective where human is the central point and harms only exist when humans are the main victims both directly and indirectly (Van Uhm 2016: 66). In the context of IUU fishing, the harms to humans can be seen from economic, social, environmental and legal order aspects. Green criminologists then extend the harms approach where humans are not the only victims, but non-human species and ecosystems can also be regarded as victims of human actions (White 2011; Van Uhm 2016; Brisman and South 2019; White 2018). In the context of IUU fishing, for example, the harms can be extended to the non-human species (i.e. fish) and ecosystem (i.e. marine ecosystem) as IUU fishing depletes fish stocks and impairs the health and function of marine ecosystem through overfishing and using destructive methods.

The environmental harms of IUU fishing are obviously detrimental since conservation and management measures are being disregarded. The activity places tremendous strain on the already depleted fish stocks and seriously affects the efforts to rebuild them. In addition, IUU fishing is also inflicting damage on seabirds, marine mammals and sea turtles. For example, in the Southern Ocean, illegal long-line vessels are estimated to kill 100,000 seabirds, including tens of thousands of endangered albatrosses annually (Palma et al. 2010: 11). The harms to the environment caused by IUU fishing is not only limited to the fish stocks and the sea creatures. The violation of conservation and management measures by IUU fishing actors also has detrimental impacts on the marine ecosystem. The depletion of fish stocks and sea creatures can impact the biodiversity and structure of the marine ecosystem and impair its health and function. Further, those who carry out IUU fishing often employ destructive fishing methods such as the use of poisons and blast fishing (Asia–Pacific Economic Cooperation (APEC) 2008: 40). These methods have the potential to damage sensitive marine habitats crucial to the marine ecosystem such as coral reefs which can take up to 25 years to recover (Palma et al. 2010: 10). The broad coverage of harms inflicted by IUU fishing can also be considered as harms to

the commons since IUU fishing causes harms to common areas and resources such as marine ecosystem, fish stocks, sea creatures that are key for the living conditions and survival of all species, including human beings.

In terms of social harms, the existence of IUU fishing activities can displace legitimate fishers since IUU fishing operates at lower costs which leads to unfair competition. This could also induce legitimate fishers to participate in IUU fishing itself to keep up with the competition. The declining fish stocks, caused by IUU fishing, also disrupt the livelihood of legitimate fishermen. The lower fish catch could lead to lower employment and lower household incomes which contribute to the increasing level of poverty, particularly among coastal and artisanal fishers (Agnew and Barnes 2004: 199). Thus, IUU fishing is disrupting the social status in fishing communities where livelihoods depend on marine resources and provoking a culture of crime and non-compliance (Telesetsky 2015: 969).[9]

On the legal order harms, IUU fishing undermines the legal order by violating fisheries laws and regulations at national, regional and global levels. IUU fishing actors conduct their activities in an organised manner with advanced technology and extensive networks. In doing so, they often engage in illicit collaboration with corrupt law enforcement officials to avoid the reach of applicable laws and regulations and to exploit the weak regulations and enforcement in numerous countries. In the same line, Liddick (2014: 309) correctly states that "IUU fishing is a significant transnational crime problem that causes severe economic, social and environmental harm". He further argues that IUU fishing should be recognised "not merely as a manifestation of a profit-driven, transnational crime perpetrated by corporate interests and organised criminals, but also a phenomenon–not unlike transnational organized crime in general—that is linked to, if not derivative of, weak, incompetent and corrupt governance" (Liddick 2014: 310).

IUU fishing activities further undermine the legal order through links with the involvement of OCGs. The activities can also be linked to other TOCs such as trafficking in persons, drug trafficking, people smuggling, bribery and money laundering (UNODC 2011, C4DS 2018). The involvement of OCGs in IUU fishing and its links with related TOCs exacerbate the adverse impacts of IUU fishing on the legal order.

IUU fishing & transnational organised crime

The organised crime dimensions can be found through the involvement of OCGs in large-scale IUU fishing operations are particularly apparent in the case of high-value fish products such as abalone, shark fins, sturgeon, caviar, totoaba and European

[9] The example of provocation of the culture of crime and non-complance can be seen, for example from the study by Daan van Uhm and Dina Siegel on the illegal trade of black caviar in the Caspian Sea where many unemployed workers and fishers often resort to poaching. It was also found that senior government officials, fishery inspectors, police services and other agencies are involved in the illicit activities. See Daan van Uhm and Dina Siegel, 'The Illegal Trade in Black Caviar' (2016) 19 Trends in Organized Crime 67.

eels. A high profit margin is one of the main pull factors for these OCGs. For example, one kilogram of raw abalone costs about USD40 in South Africa and sells for as much as USD3,900 for retail customers in Asia (Warchol and Harrington 2016: 23). In South Africa, Chinese OCGs exploited local fisherman to obtain abalone and then smuggled the majority of the abalone to Asia through Mozambique or Zimbabwe, while the rest was supplied to the South African market (Warchol and Harrington 2016: 25, 32). A study found that abalone traffickers in South Africa are found to be mainly Asians, have the form of fraternal rather than hierarchal, and have horizontally structured organisations where individuals have a large degree of autonomy (Goga 2014: 4). These traffickers also have an established link with drug dealers where they trade abalone for Mandrax or methamphetamines, or the ingredients for methamphetamine production (Goga 2014: 4). A study by the UNODC in 2011 also showed the involvement of OCGs in abalone poaching in South Africa, Australia and New Zealand, with Asia as the main market (UNODC 2011: 98–103). More recent studies on totoaba trafficking in Mexico to China (Martinez and Martinez 2018: 149–170; Crosta et al. 2018) and on European glass eel trafficking to Asian market (UNODC 2020: 93–105) have also shown the involvement of OCGs in the trafficking of the two species. The widespread existence of OCGs' involvement in IUU fishing is also highlighted in a study by the Global Initiative against Transnational Organised Crime where it is suggested that the OCGs' involvement can be found in many parts of the world, from New York's Fulton Fish Market to groups from the former Soviet Union, China, South America and South Africa (Bondaroff et al. 2015: 55).

In Southeast Asia, the involvement of OCGs in IUU fishing is also evident from numerous cases in the region. The case of the fishing vessel "Viking" among others, showed how the vessel had the characteristics of OCGs (Tanjung Pinang District Court Decision (2016) No. 17/Pid.Sus-PRK/2016/PN Tpg). The "Viking" crew consisted of a Chilean national as the captain and ten crew members coming from Argentina, Chile, Indonesia and Peru. Their main purpose was to obtain financial benefits from their operations (The Maritime Executive 2016). "Viking" was put under the purple notice[10] of Interpol and listed as an IUU fishing vessel by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The vessel had been engaging in IUU fishing activities in different countries for ten years under twelve different names and eight different flags before it was sunk by the Indonesian government on 14 March 2016 (Tanjung Pinang District Court Decision 2016). In addition to "Viking", there are similar cases, such as "Sino" (Ambon High Court Decision 2015), "Pusaka Benjina" (Indonesian Supreme Court Decision 2015), "Kunlun" (INTERPOL 2015) and others, where the involvement of OCGs can be linked to IUU fishing operations across Southeast Asian waters.

[10] The purple notice is an international request for cooperation or an alert issued by Interpol with the aim to 'seek or provide information on modus operandi, objects, devices and concealment methods used by criminals.' See INTERPOL, 'Notices' < https://www.interpol.int/INTERPOL-expertise/Notices > accessed 11 September 2017.

Both transnational and organised crime dimensions magnify the already significant harms of IUU fishing and thus pose major challenges for states, regional communities and the international community in securing fisheries resources. Thus, it is paramount for the international community to consider the involvement of OCGs when tackling the global problem of IUU fishing. However, as will be discussed below, the existing international and national fisheries instruments have deficits in their regulatory and enforcement designs and practices. These deficits can be seen from two sub-questions. First, whether international fisheries instruments allow states to exercise a wide discretion in designing and applying their regulations and enforcement systems and measures against IUU fishing and thus leads to substantive divergent policies, legal framework and practices at national level?. Second, whether the international fisheries instruments provide any solution in their provisions for addressing the involvement of OCGs in IUU fishing?.

Deficits of international fisheries instruments at a global level

The first sub-question of this article (i.e., whether international fisheries instruments allow states to exercise a wide discretion in designing and applying their regulations and enforcement systems and measures against IUU fishing which leads to substantive divergent policies, legal framework and practices at national level?) can be tested at a global level from five international fisheries instruments i.e. the UNCLOS, the Compliance Agreement, the UNFSA, the IPOA-IUU and the PSMA. These international fisheries instruments give states wide discretion in formulating and applying their regulatory and enforcement designs and practices. A wide range of regulatory and enforcement systems and measures can be found in different states, from a mere administrative fine with limited or non-existent deterrent effects, civil sanctions to imprisonment. For example, some states such as Indonesia, Malaysia, Micronesia, Tanzania, Grenada, Barbados and Nigeria address IUU fishing in their territorial seas by relying more on criminal sanctions against offenders (Palma et al. 2010: 150) while other states such as Spain, Portugal and Vietnam rely more on administrative sanctions (Cacaud et al. 2003).

Nevertheless, on sanctions, some of these instruments provide general guideline where such sanctions should be of sufficient severity to secure compliance, discourage violations, and to deprive offenders from enjoying the benefits from the illegal activities as can be seen from Article III(8) of the Compliance Agreement, Article 19(2) of the UNFSA, and paragraph 21 of the IPOA-IUU. Article III(8) of the Compliance Agreement and Article 19(2) the UNFSA, for example, provide sanctions against violations in terms of refusal, withdrawal or suspension of authorisations. Paragraph 21 of the IPOA-IUU provides that sanctions may include the adoption of civil sanction regimes based on an administrative penalty scheme. These international fisheries instruments only provide general guidelines where such sanctions should be of sufficient severity to secure compliance, discourage violations, and to deprive offenders from enjoying the benefits of from the illegal activities. These instruments do not have a preference on which enforcement system should be applied by states. Thus, states have wide discretion in designing and applying their

enforcement system which can be administrative, civil or criminal. The divergent national regulations and enforcement systems and practices could be exploited by IUU fishing actors, including by operating in jurisdictions with the least punitive sanctions so that their operations can continue without significant barriers. This condition is confirming the first sub-question in this article.

On the second sub-question (whether the international fisheries instruments provide any solution in their provisions for addressing the involvement of OCGs in IUU fishing?), the international fisheries instruments do not consider at all the TOC dimensions, particularly OCGs' involvement in their provisions. The provisions of international fisheries instruments are directed more towards the "regular" actors of IUU fishing. This is understandable since the attention on OCGs' involvement is relatively recent (one of the earliest identified discussion was on 2008 (Earth Negotiations Bulletin 2008), and it was not a determinant factor in the establishment of these instruments. This lack of consideration of OCGs' involvement in IUU fishing in the international fisheries instruments confirmed the second sub-question of this article.

Deficits of international fisheries instruments at a national level

The two conditions of sub-questions found in the existing international fisheries instruments are also evident at the national level. On the first sub-question, the wide variation in fisheries regulations and its enforcement among states can be seen from different studies such as Beke et al. (2014) which identifies variation of fisheries regulations and enforcement among the European Union member states and Cacaud et al. (2003) which also confirmed the wide variation of regulations and enforcement systems and measures among selected countries in Europe, Africa, Latin America, North America, and South Pacific. The two studies confirmed that countries, at national level, apply a variety of enforcement systems and measures against fishing violations.

A further examination on the wide discretion in fisheries regulations and its enforcement at national level can be seen from case studies of Indonesia and Vietnam. Both Indonesia and Vietnam suffer from IUU fishing operations. Indonesia is a victim of IUU fishing where domestic and foreign vessels are fishing illegally in its national waters (Chapsos and Hamilton 2019). However, it should also be acknowledged that Indonesian vessels are involved in IUU operations. In the efforts to deter IUU fishing by foreign-flagged vessels, Indonesia also employs a "burning and/or sinking policy". The legal basis for this policy can be found in Article 69 (1) and (4) of the Law on Fisheries. Article 69 (1) states that 'fisheries surveillance vessel has the function to implement surveillance and law enforcement in the field of fisheries in the Republic of Indonesia Fisheries Management Area. While Article 69 (4) states that 'in implementing the function stated in Article 69 (1), investigator and/or fisheries inspectors can undertake special actions such as burning and/or sinking the foreign-flagged vessels based on prima facie evidence. Some impacted countries of the burning and/or sinking policy such as Vietnam, Thailand, the Philippines

and China were complaining the Indonesia's policy (Nainggolan (2015). Against the responses, the Indonesian government has been taking a firm stance by stating the burning and/or sinking policy is the implementation of the law (Maulana 2015). The practice of burning and/or sinking still continues until now. For example, from January to March 2021, there had been 26 foreign-flagged vessels sunk by Indonesian government (Kementerian Kelautan dan Perikanan 2021). The policy is said to deter IUU fishing vessels from conducting their illegal operations in the Indonesian waters. To reduce the environmental impact, the vessels were perforated to become houses for fish (Kementerian Kelautan dan Perikanan 2021).

Vietnam is also suffering from IUU fishing activities in its waters carried out by domestic and foreign vessels. However, Vietnamese vessels are also the perpetrators of IUU fishing in foreign waters, ranging from the neighbouring waters including Indonesia and Malaysia to the waters of Pacific countries such as New Caledonia and the Solomon Islands. In Indonesia, for example, Vietnamese vessels are the top violators where from 2014–2019 there had been 320 Vietnamese vessels sunk by the Indonesian authorities (Directorate General of PSDKP 2020). Other vessels from countries in the region such as Philippines, Malaysia and Thailand are also conducting IUU fishing in Indonesia, although their numbers are significantly lower than Vietnam. Vietnam's high number of IUU fishing incidences has resulted in the European Commission identifying that Vietnam had failed to discharge its responsibilities as the flag, port, coastal or market state under international law and had failed to take action to prevent, deter and eliminate IUU fishing. To this effect, the European Commission issued a formal notification ("yellow card") against Vietnam (Commission Decision C 364/3 of 2017).

Regarding regulations and enforcement against IUU fishing, Indonesia lays down its sanction provisions in detail in the fisheries laws and relevant ministerial decrees, while Vietnam put the sanctions into the criminal code and into the law on handling administrative violations together with other non-fisheries offences. Both countries, in their legislation, have the option to apply both administrative and criminal sanctions against IUU fishing violations. Regarding administrative sanctions, Indonesia has imposed licence-related sanctions such as issuing a warning, freezing of licences and revocation of licences without imposing a fine in its Fisheries Laws (Law No. 45 of 2009 and Law No. 31 of 2004), while Vietnam chose to impose a fine as the main form of sanction and also additional sanctions such as suspension of licence, suspension of operation, confiscation of material evidences and remedial measures in Government's Decree No. 42/2019/ND-CP of 2019 on Administrative Sanction in the Fisheries Activities. Regarding criminal sanctions, both countries apply criminal imprisonment and a fine against IUU fishing offences with different application. Indonesia, for example, for using prohibited gear or methods, Indonesia, in Article 84 of Law No. 31 of 2004, imposes imprisonment up to a maximum of 6 years and a maximum fine of IDR 1.2 billion (approximately USD84, 507).[11] Vietnam, however,

[11] In this study, 1 USD is equal to IDR 14,200.

in its Criminal Code, divides criminal sanctions for fisheries violations into three categories, based on the amount of losses of aquatic resources and the severity of the actions. For using prohibited gear or methods which causes a loss of aquatic resources ranging in value from VND100,000,000 (approximately USD4,329) to VND500,000,000 (approximately USD21,645),[12] Article 242(1) of Law No.12/2017/QH14 on Amendments to the Criminal Code No. 100/2015/QH13, only imposes a fine of VND 50,000,000 (approximately USD2,164) up to VND 300,000,000 (approximately $12,987) or a penalty of up to 3 years' community sentence or from 6 to 36 months' imprisonment. The period of imprisonment and the amount of fine increases along with the loss caused by the offence. The variety of regulations and enforcement provisions between the two countries is possible due to the wide discretion given by the international fisheries instruments to states. The wide discretion in this case has led to substantive divergent policies, legal framework and practices which can be exploited by IUU fishing actors, including OCGs.

On the second sub-question, the lack of provisions on the involvement of OCGs in IUU fishing at a national level can be seen among others from a study by Telesetsky (2015) on Russia, Japan, China, Taiwan and the United States. The study shows that the five countries provide some possibilities for criminal enforcement against fisheries violations. Nonetheless, the study highlighted the fact that there is a lack of clarity on the relationship between IUU fishing and organised crime in the five countries' fisheries provisions (Telesetsky 2015: 978). The lack of provisions on the involvement of OCGs in IUU fishing can also be seen in the case of Indonesia and Vietnam. IUU fishing operations in both countries show indications of involvement by OCGs. In Indonesia, the involvement of OCGs is more apparent in the IUU fishing operations by foreign vessels where the operations are transnational and carried out by groups with significant number of crew, better vessels and equipment. These groups conspire with local actors in conducting their illegal operations. IUU fishing operations in Indonesia are also connected to other TOCs, such as trafficking in persons, drug trafficking and migrant smuggling (Chapsos and Hamilton 2019; IOM, KKP and Coventry City 2016; Missbach 2016). For example, a notorious "Benjina case" in the Maluku island of Indonesia in 2015 where more than 1,000 fishermen from Cambodia, Laos, Myanmar and Thailand were trafficked in IUU fishing-related operations (Chapsos and Hamilton 2019; IOM, KKP and Coventry City 2016). In Vietnam, the indication of involvement of OCGs is more apparent in the transnational operation of its vessels in foreign waters. Some of the Vietnamese vessels are operating for months in foreign waters and some have even been accompanied by mother ships and armed with guns, which shows the seriousness of the problem (Shah 2017). Unfortunately, despite the involvement of OCGs in IUU fishing in both countries, neither country appears to give consideration to the involvement of OCGs in IUU fishing as there are no specific provisions or enforcement practices in the legislation of either country related to the involvement of OCGs. This lack of consideration for OCGs involvement thus answers the second sub-question.

[12] In this study, 1 USD is equal to VND 23,100.

Rationale for IUU fishing criminalisation

One of the main reasons to criminalise conduct that is particularly harmful to society is deterrence (Ashworth and Horder 2013: 16–17). In this sense, the enactment of criminal law against certain conduct is an attempt to protect the interests of society against the harms that are caused by such conduct and to deter or prevent the same conduct happening in the future (McCaffrey 2008: 1015). The harms to others provide a sufficient (or even necessary) condition for states' intervention through criminal law; this is known as the 'harm principle' (Peršak 2014: 15). The conduct that would fall into the category of the harm principle is that which causes or may cause serious or significant harm, and the determination of such categorisation is under the authority of the state (Peršak 2014: 17).

The act of organisation of individuals, existing for a period of time, acting in concert, aiming to commit breaches of fisheries regulations and/or fisheries offences to obtain financial benefits, can cause greater harms than individuals acting alone (Fickenauer 2005: 78). These collective actions, thus, pose greater risks to society than individual actions and are worthy of a greater punishment (Schloenhardt 2010: 12). This notion can also be applied to the involvement of OCGs in IUU fishing where the harms caused by OCGs are arguably significantly greater than those generated by the "regular" actors of IUU fishing such as fishermen or fishing companies which do not have the characteristics of OCGs.

Criminal law protection of the environment should be used when the essential interests related to the preservation of the commons are at stake (Vervaele 2016: 243). Thus, all serious harms to these common interests, committed by gross negligence, recklessness or intent, deserve the protection and enforcement of the criminal law (Vervaele 2016: 243). Harms caused to the environment, in particular, and its TOC dimensions have triggered a new interest in protecting the environment through criminal law (Vervaele 2016: 251). IUU fishing, as explained above, causes significant economic, environmental, social and legal order harms. The amplification of harms caused by OCGs' involvement in IUU fishing is argued in this study to be a qualifying condition for the intervention of states intervention through criminal law in protecting the environment. In this case, the use of criminal law and its sanctions is preferable to civil or administrative law for four main reasons. First, the application of criminal law shows a higher societal disapproval of IUU fishing than would be shown by the use of civil or administrative law. Second, the sanctions of criminal law can be more severe and serve as a deterrent, e.g. the possibility to impose imprisonment, compared with civil or administrative sanctions that generally take the form of monetary penalties. Third, criminal law authorises the use of special investigation methods that are needed in bringing perpetrators to justice, something that cannot be achieved by civil or administrative law. Fourth, criminal law enables the use of international cooperation mechanisms such as MLA (Vervaele 2015) and extradition (Harrington 2015) that are generally not used by civil or administrative law.

Suppression conventions as solution for IUU fishing criminalisation

Boister (2002: 199) defines suppression conventions as "multilateral treaties that oblige states to criminalise certain forms of conduct and to provide legal assistance to other states in order to suppress 'treaty crimes' or crimes of 'international concern'". Another description is provided by Currie and Rikhof (2013: 328), who see suppression conventions as "treaties agreed by states, usually multilateral, to coordinate crime suppression efforts among them". In general, suppression conventions can be considered to have four main elements: i) substantive law, ii) jurisdiction, iii) investigative tools, and iv) international cooperation. Historically, few efforts were made to coordinate cross-border prohibition, jurisdiction, and enforcement due to national sovereignty in criminal justice matters. States cooperated mainly on a partial and reactionary basis which responded to the perceived problems of the time (Currie and Rikhof 2013: 328). However, Currie and Rikhof (2013: 328) observe that there has been increasing willingness among states to increase and expand cooperation, resulting in the growing sophistication and complexity of the conventions. Until now, different conventions have been concluded to suppress particular transnational crimes including transnational organised crime, slavery,[13] corruption,[14] and trafficking in persons.[15]

One of the main objectives of suppression conventions is to criminalise certain harmful transnational conduct. The decision as to whether a specific transnational conduct has reached a certain degree of harm and therefore deserves to be criminalised under a suppression convention is in the hands of like-minded states. In deciding which transnational conduct deserves to be criminalised, Boister (2018: 13) acknowledged that "there is no clear international system to identify and respond to transnational criminal threats and nor is it clear what weight of evidence of a threat is necessary to tip the scale towards suppression". Nevertheless, this study argues that there are several common factors that can be considered in determining whether a conduct ought to be criminalised under a suppression convention, i.e. significant harms and the transnational and organised crime dimensions. These factors are common factors that can be found in numerous suppression conventions. As shown above, IUU fishing is causing significant harms for states and it has clear transnational and organised crime dimensions. Thus, it is argued in this article that IUU fishing fits the criteria to be criminalised under suppression conventions. Such criminalisation can be done at global and regional levels to limit the operation of OCGs in IUU fishing.

[13] Slavery Convention (adopted 25 September 1926, entered into force 9 March 1927) 60 LNTS 253.

[14] United Nations Convention against Corruption (adopted 31 October 2003, entered into force 14 December 2005) 2349 UNTS 41.

[15] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime (Trafficking in Persons Protocol) (adopted 15 November 2000, entered into force 25 December 2003) 2237 UNTS 319.

Criminalisation of IUU fishing through suppression conventions at a global level

At a global level, this study proposes three options in which IUU fishing could be criminalised under a suppression conventions' framework. The first option is to criminalise IUU fishing under the United Nations Convention against Transnational Organized Crime (UNTOC). There are two alternatives of doing this put forward in this article, namely to categorise IUU fishing as a serious crime or to establish an additional UNTOC Protocol against IUU fishing. The second option to criminalise IUU fishing is for like-minded states to establish a stand-alone suppression convention against IUU fishing. The third option is to integrate suppression provisions into the existing international fisheries instruments.

On the first option of IUU fishing criminalisation under the UNTOC, such criminalisation can be achieved through categorising IUU fishing as a serious crime as the first alternative. Such categorisation can be pursued through a resolution from like-minded countries using the framework of Commission on Crime Prevention and Criminal Justice (CCPCJ) or the Conference of the Parties (CoP) to UNTOC. As a second alternative, IUU fishing criminalisation under the UNTOC can also be achieved through the establishment of an additional UNTOC Protocol. The new protocol on IUU fishing would take a supplementary position towards the UNTOC. The UNTOC would still be the main reference point for tackling TOC in general. The new protocol would not have to repeat the existing provisions such as extradition, MLA, international cooperation and others since they are already dealt with in the UNTOC as the parent convention. The new protocol would deal with more specific provisions relevant to its subject matter which would supplement the general provisions of the UNTOC jurisdictions and measures that can be taken by flag, coastal and port states.

On the second option of establishing a stand-alone convention against IUU fishing, such a stand-alone convention could be established when states come to an agreement that IUU fishing with TOC dimensions is a transnational organised crime that needs to be suppressed globally. Significant harms caused by OCGs' involvement in IUU fishing could be the foundation of a common consensus for criminalisation among concerned states. Since these harms are not exclusively confined within national borders, states have stronger reasons to unite their interests into forming an agreement to suppress IUU fishing through criminalisation under a stand-alone suppression convention.

On the third option, namely that of integrating suppression provisions into the existing international fisheries instruments, any of the five international fisheries instruments has the potential to accommodate the suppression provisions, although it largely depends on the endorsement of the States Parties.[16] However, it should be

[16] The discussion on large-scale harms to the environment relates to the concept of ecocide. Ecocide is described as "the extensive damage to, destruction of or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished" (Higgins et al. 2013: 257). Ecocide has been proposed as the missing fifth crime against peace or international core crime in the ICC Rome Statute in an attempt to protect the environment (Higgins et al. 2013: 257; Vervaele and Van Uhm 2017).

acknowledged that those international fisheries instruments focus mainly on the conservation and management of marine living resources and are less interested in the criminal justice approach. There are three alternatives that can be used in pursuing the third option: i) amendment of instruments; ii) establishment of an implementing agreement; and iii) establishment of a voluntary instrument. With regard to the first alternative, namely the amendment of instruments, each instrument has a mechanism of amendment, with the exception of IPOA-IUU as it is a voluntary instrument. The UNCLOS (Articles 312–313), for example, provides States Parties with an opportunity to propose an amendment to the Convention and to communicate such proposal to the Secretary-General of the United Nations. Similar opportunities for amendments can also be found in the Compliance Agreement (Article XIII), the UNFSA (Article 45) and the PSMA (Article 33). Although, hypothetically, amendment is possible, in reality amending a multilateral agreement has always been a difficult and arduous process. The second alternative is to establish an implementing agreement attached to the specific instrument. This process could bypass the need for amendment by appealing to a number of interested States Parties which could be the drivers of the whole process and parties to the implementing agreement. However, the process of establishing an implementing agreement could be lengthy. An example of this is the process of establishing an agreement on marine biological diversity of areas beyond national jurisdiction (BBNJ), as an implementing agreement of the UNCLOS (Oude Elferink 2019). Until now, the BBNJ process has taken almost two decades since its first inception in 2004. A similarly arduous process could also happen with an implementing agreement with suppression provisions. The third alternative, taking a lesson from the IPOA-IUU, is to establish a voluntary instrument such as a guidance or a plan of action which would incorporate suppression provisions to be implemented voluntarily by interested states.

Recommendation at a global level

This article proposes that the criminalisation of IUU fishing under the UNTOC would be the most suitable option compared with the other two based on three categories: scope of application, feasibility and operationality. In terms of scope of application, member states of the UNTOC have already agreed on the limitation under Article 3 which requires the involvement of OCGs and the element of transnationality in the offence. States can then focus on other substantive aspects of IUU fishing, such as determining which offences would be criminalised, the jurisdictions on different areas such as internal and territorial waters, EEZs, high seas and ports, and the additional investigative tools such as aerial surveillance. In terms of feasibility, the UNTOC also has the advantage where states can use the existing substantive foundation and mechanism rather than starting from scratch. In terms of operationality, the UNTOC could be a better alternative since it already has existing institutional support, i.e. the UNODC, which, ideally, could provide resources in terms of expertise and funding. The preference for the UNTOC in this article does not exclude the two other options entirely as they also have their advantages. The final decision concerning which option will be pursued is in the hands of the states.

Criminalisation of IUU fishing under suppression conventions at a regional level

Regional cooperation is important in tackling transnational crimes. Bulmer-Thomas (2001: 363) asserts that "almost every country in the world has chosen to meet the challenge of globalisation in part through a regional response". This assertion is also true in the case of transnational crime. Different regional arrangements have emerged to respond to the threats of transnational crime. For example, the European Union established the Convention against Corruption involving Public Officials.[17] In the Asia–Pacific region, countries established the Bali Process in 2002 to address people smuggling, trafficking in persons and related transnational crime.[18] In Southeast Asia, the ASEAN established the ASEAN Convention against Trafficking in Persons, especially Women and Children (ACTIP) (ASEAN 2015a) and the ASEAN Ministerial Meeting on Transnational Crime (AMMTC) to oversee the region's fight against transnational crime.

This article proposes two options that can be pursued for the criminalisation of IUU fishing under suppression conventions at a regional level, i.e. the establishment of a stand-alone regional suppression convention and the integration of suppression provisions into regional fisheries instruments. The details of how the criminalisation of IUU fishing can be implemented in a regional setting in this article are further explained in the context of the Southeast Asia region.

On the option of establishing a stand-alone regional suppression convention, the development of a new regional legal instrument in the fight against transnational crime is encouraged by the ASEAN Plan of Action in Combating Transnational Crime (2016–2025) (ASEAN 2017). The Plan of Action, in its objectives (section IV(1)), opens up the possibility of expanding the AMMTC and Senior Officials Meeting on Transnational Crime (SOMTC)'s scope of responsibility to deal effectively with new methods and forms of transnational crime where it is necessary and mutually agreed. This could include future transnational crimes that are deemed to be worthy of suppression, including IUU fishing. Section V (Legal Matters) then encourages States to explore the possibility of developing new regional legal instruments in the areas of transnational crimes under the purview of the AMMTC and SOMTC.

On the option of integrating suppression convention provisions into the existing regional fisheries instruments, this article examines four instruments related to the Southeast Asia region. The first possibility is the existing RFMOs which have mandates covering parts of the Southeast Asia region, i.e. the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Indian Ocean Tuna Commission (IOTC) and the Western and Central Pacific Fisheries Commission (WCPFC).

[17] Convention drawn up on the basis of Article K.3 (2) (c) of the Treaty on European Union on the Fight Against Corruption Involving Officials of the European Communities or Officials of Member States of the European Union [1997] OJ C195/2.

[18] The Bali Process is a Regional Consultative Process established in 2002 with 49 members. For more information see: https://www.baliprocess.net/.

The second possibility is the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain (Mazalina et al. 2015). The third and fourth options are the Strategic Plan of Action on Cooperation on Fisheries 2016–2020 (ASEAN 2015b) and the Regional Plan of Action to Promote Responsible Fishing Practices, including Combating IUU Fishing in the Region (RPOA-IUU). Among these options, integration into existing RFMOs is not a suitable option since none of the three RFMOs have the competence to cover all the region's waters, and there is only partial participation by Southeast Asian states in these RFMOs. This would hinder the effective implementation of regional criminalisation as the suppression provisions would then only apply to some parts and some members of the Southeast Asia region. The integration of suppression provisions into the other three options would be more possible. These three instruments are voluntary and non-binding, a trait that seems to be preferred by ASEAN member states where it comes to field of fisheries. If a regional arrangement were to be voluntary and non-binding in nature, it is to be hoped that many Southeast Asian states would want to sign-up. However, this would mean that there is a possibility that some states would choose not to be bound by the suppression provisions, either partially or wholly. There is also a possibility that the commitment level to a fully pledged implementation would not be very high.

Recommendation at a regional level

This article proposes the establishment of a regional stand-alone convention against IUU fishing as the more suitable option compared with the integration of suppression provisions into the regional fisheries instruments based on three categories: scope of application, feasibility and operationality. In terms of the scope of application, the regional convention option has more flexibility than the integration option since states have the freedom to frame the convention according to their needs, whereas with the integration option states are somewhat confined within the boundaries of the existing conservation and management measures. In terms of feasibility, the establishment of a regional stand-alone convention could become part of a growing trend of the establishment and ratification of regional legal instruments against common threats to the region as shown in the case of the ACTIP (Yusran 2018: 258–292). This growing trend to ratify a regional legal instrument inclination is also supported by the Kuala Lumpur Declaration (ASEAN 2015c) and the ASEAN Plan of Action in Combating Transnational Crime (2016–2025) by opening up the possibility of the expansion of the concept of transnational crime and the inclusion of IUU fishing as a transnational crime. In terms of operationality, the regional convention option is likely to have the support of the ASEAN Secretariat. As in the case of ACTIP, the convention in its Article 24(2), has the support from the ASEAN Secretariat for supervising and coordination its implementation. If a regional convention against IUU fishing were to be established, the ASEAN Secretariat is likely to be tasked with supporting the convention.

The Nexus between Regional and Global Criminalisation of IUU fishing

To achieve greater success, regional criminalisation could serve as a complementary solution to the global criminalisation of IUU fishing. For example, in the case of ASEAN, as all the ASEAN Member States (AMS) are parties of the UNTOC, the stand-alone regional convention could serve as a complementary solution to the UNTOC. The regional convention could draw from the UNTOC provisions so as to establish synchronisation between the two while still taking into account regional circumstances. This could result in greater support for the regional convention, in both its establishment and implementation since all the AMS are parties to the UNTOC and already familiar with the UNTOC provisions.

It should also be acknowledged that there is a possibility that global criminalisation cannot be realised and that regional criminalisation of IUU fishing is the only option. The absence of global criminalisation would not lessen the value of regional criminalisation. A relevant example in this matter is the criminalisation of corruption. Before the establishment of the UNCAC in 2003, a global instrument to fight corruption, several regional conventions were established to cater to the regions' needs to tackle and criminalise corruption, e.g. the Inter-American Convention against Corruption of 1996 (Organization of American States 1996) and the Council of Europe Criminal Law Convention on Corruption.[19] Based on these examples, states in Southeast Asia could continue with regional criminalisation without having any global criminalisation instrument already in place. Ideally all states in Southeast Asia should become parties to increase effective implementation. However, if this is not possible, at initial stage several like-minded states could lead the regional convention establishment with the main objective of participation from all Southeast Asian states.

Conclusion

This article has shown that IUU fishing causes significant economic, environmental, social and legal order harms. For example, IUU fishing activities have contributed to the destruction of marine habitats such as coral reef and the depletion of fish stocks which caused direct harm to human, non-human (i.e. fish) and the ecosystem. Moreover, in many cases, OCGs' involvement in IUU fishing is evident and could magnify the harms caused by IUU fishing. In the context of the harm principle, these extensive harms are qualifying conditions for State's intervention through criminal law. States would need to use criminal law to address these harms caused by OCGs' involvement in IUU fishing. This intervention would be an instrumental part in the efforts of preserving the commons.

[19] Criminal Law Convention on Corruption (opened for signature 27 January 1999, entered into force 1 July 2002) ETS No. 173.

Considering the magnified harms caused by OCGs, this article argues that there should be a clear and harmonised regulatory and enforcement system against OCGs' involvement in IUU fishing, which can be done through criminal regulations and enforcement under suppression conventions. In doing so, this article offers two solutions, i.e. criminalisation of IUU fishing through suppression conventions at global and/or regional levels. At a global level, it is argued that criminalisation of IUU fishing is best implemented through the UNTOC with the establishment of an additional Protocol. At a regional level (Southeast Asia), it is argued that the most suitable means to pursue criminalisation is through the establishment of a regional standalone convention.

Both global and regional criminalisation would not replace or undermine the existing fisheries instruments. Rather, they would act as complementary instruments to the fisheries instruments by providing criminal regulations and enforcement systems that previously were not available to tackle the involvement of OCGs in IUU fishing. The criminalisation under a suppression conventions framework would harmonise legal frameworks among states, provide a wide range of international cooperation tools, and send a strong signal to the international community that IUU fishing is a serious threat and that the conducting of such activity will lead to punitive enforcement. Suppression conventions, both at global and regional levels, need to be linked with relevant fisheries instruments in terms of expertise and cooperation tools. By having both criminalisation and conservation and management instruments on the same wavelength, it is to be believed that the involvement of OCGs could be addressed more effectively and, at the same time, that fisheries conservation and management measures could still be pursued.

If not tackled properly, the harms of IUU fishing and its TOC dimensions can create large-scale harms to the fish stocks, sea creatures and the marine environment in general. The extensive harms of IUU fishing to the environment, if not abated, could lead to ecocide or perhaps it is already starting to happen. In addition to IUU fishing, OCGs involvement can also be seen in other offences including trafficking in endangered species and illicit waste disposal. Such involvement also exemplifies the harms caused in each offence and thus requires states to intervene. In this context, the use of criminal law, in particular through suppression conventions, can also be an option for other environmental offences. To conclude, we would like to align ourselves with His Holiness Pope Francis (Bulletin of the Holy See Press Office 2019) statement at the World Congress of the International Association of Penal Law where His Holiness "appeal to all the leaders and actors in this area to contribute their efforts to ensuring adequate legal protection for our common home."

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Human Participants and/or Animals The authors declare that no human and/or animals were involved.

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