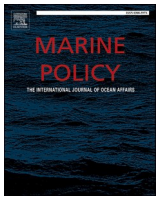
Marine Policy 149 (2023) 105514

Contents lists available at ScienceDirect

Marine Policy

journal homepage: www.elsevier.com/locate/marpol



Full length article

Enforcement approaches against illegal fishing in national fisheries legislation

Blaise Kuemlangan [a], Elizabeth-Rose Amidjogbe [b,*], Julia Nakamura [c], Alessandra Tomassi [a], Rudolph Hupperts [a], Buba Bojang [a], Teresa Amador [d]

[a] Development Law Service of the Legal Office of the Food and Agriculture Organization of the United Nations (FAO), Viale delle Terme di Caracalla, 00153 Rome, Italy
[b] Australia National Centre for Ocean Resources and Security (ANCORS), University of Wollongong, 3F ITAMS Building, Innovation Campus, NSW 2500, Australia
[c] Strathclyde Centre for Environmental Law and Governance (SCELG), University of Strathclyde Law School, Lord Hope Building, 141 St James Road, Glasgow G4 0LT, UK
[d] Fisheries Global and Regional Processes Team of the Fisheries and Aquaculture Division of FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy

ARTICLE INFO

Keywords:
Illegal fishing
Enforcement
Fisheries legislation
Sanctions
IPOA-IUU
International law

ABSTRACT

Illegal, unreported and unregulated (IUU) fishing activities are amongst the most serious and persisting global concerns that negatively impact the environment, economy, and livelihoods. The concept of IUU fishing is elaborated under Para 3 of the 2001 International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) of the Food and Agriculture Organization of the United Nations (FAO). In this article, the authors narrow the focus of the discussion herein on 'illegal fishing' activities, which generally fall under Para 3.1 of the IPOA-IUU, particularly examining the enforcement approaches against illegal fishing activities in national fisheries legislation. We explore a few overarching questions underpinning the scholarly debate on illegal fishing and crimes in the fisheries sector. First, whether criminalising illegal fishing or subjecting such fishing to criminal law processes lead to better compliance with fisheries legislation or is a more effective approach to tackling illegal fishing. Second, whether the problem of illegal fishing persists due to the lack of its criminalization or the resistance by States to criminalizing illegal fishing activities. Our assessment analyses the primary fisheries legislation of States and the European Union (EU) to better understand the enforcement approaches adopted therein, the responses used to empower national authorities, establish processes, delineate liability, and fix the sanction scheme, including the level of sanctions in terms of severity for illegal fishing. We ultimately aim to demonstrate that the options used to combat illegal fishing set out in national fisheries legislation are not limited to a single type of enforcement approach. Indeed, our assessment of national fisheries legislation shows that most States seem to follow a dual enforcement approach, which includes provisions enabling the use of both administrative and criminal processes and sanctions to enforce against illegal fishing and fishing related activities. We support a multipronged approach to address illegal fishing, which may include legal solutions such as criminalizing serious fisheries violations.

1. Introduction

Illegal, unreported and unregulated (IUU) fishing activities are amongst the most serious and persisting global concerns that negatively impact the environment (e.g., harm to marine and inland fishery resources, associated species, ecosystems, habitats, biodiversity), economy (e.g., losses to local food supply and unfair competition among fisheries subsectors) and livelihoods (e.g. contributes to food insecurity, malnutrition and poverty) [1,2]. IUU fishing activities, being motivated by economic gain, take advantage of corrupt administrations and exploit weak management regimes. IUU fishing may also be associated with organized crime and linked to indecent working conditions and forms of slavery [2–4]. The concept of IUU fishing is elaborated under Para 3 of the 2001 International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) of the Food and Agriculture Organization of the United Nations (FAO) [5] and its related guidelines [6–8]. In this article, we narrow the focus of the discussion on 'illegal fishing' activities, which generally fall under Para 3.1 of the

* Corresponding author.
E-mail addresses: blaise.kuemlangan@fao.org (B. Kuemlangan), erda756@uowmail.edu.au (E.-R. Amidjogbe), julia.nakamura@strath.ac.uk (J. Nakamura), alessandra.tomasi@fao.org (A. Tomassi), rudolph.hupperts@fao.org (R. Hupperts), buba.bojang@fao.org (B. Bojang), teresa.amador@fao.org (T. Amador).

https://doi.org/10.1016/j.marpol.2023.105514
Received 26 April 2022; Received in revised form 16 January 2023; Accepted 23 January 2023
Available online 2 February 2023

IPOA-IUU, particularly examining the enforcement approaches against illegal fishing activities in national fisheries legislation. While a lot has been written about illegal fishing, there has not yet been a systematic analysis investigating the enforcement provisions to tackle illegal fishing in national fisheries legislation. Writers have looked at fisheries enforcement in specific countries or regions [9–13] and on the high seas [14–16]; discussed inter-States cooperation for fisheries enforcement and tackling IUU fishing [17,18]; and carried out literature review on regulatory enforcement in fisheries [19]. Other studies have examined fisheries legislation in respect of their alignment with international law instruments [20,21], but literature has not yet examined the enforcement provisions across multiple States' fisheries legislation to understand the current trends and approaches adopted by States to address illegal fishing through fisheries legislation. Our article aims to fill this gap.

The IPOA-IUU describes 'illegal fishing' with reference to activities that are: carried out by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations (Para 3.1.1); conducted by vessels flying the flag of States that are members of a regional fisheries management organizations (RFMO) operating in contravention of the respective RFMO's conservation and management measures (CMMs) or relevant international law instruments (Para 3.1.2); and in violation of national laws or international obligations, including those undertaken by RFMO's cooperating States (Para 3.1.3). In addition to 'illegal fishing', Paras 3.2 and 3.3 of the IPOA-IUU describe activities which are considered respectively as 'unreported fishing' and 'unregulated fishing'. A closer examination of these two provisions reveals that, in fact, 'illegal fishing' can also occur in 'unreported fishing' and 'unregulated fishing' activities. For instance, both the non-reporting and the misreporting which are undertaken in contravention of conditions of fishing authorizations or applicable regulations are examples of illegal fishing activities. Similarly, fishing on the high seas areas that are neither covered nor regulated by RFMOs, but which are not consistent with the general obligation of States to protect and conserve the marine environment, as reflected in Article 192 of the 1982 UN Convention on the Law of the Sea (LOSC) [22], also arguably constitute illegal fishing. As such, the meaning of IUU fishing, pursuant to the IPOA-IUU and the general usage of the term, is largely associated with the (il)legality aspects in IUU fishing and, more precisely, 'illegal fishing' [23].

The common thread that makes fishing or a fishing related activity illegal is the contravention of the applicable laws and regulations. Illegal fishing activities may comprise activities across the fisheries value and supply chains, from harvesting to processing and trading illegally. The pervasive non-compliance with fisheries laws and regulations by fishers and fishing operations at national and international levels, and across many geographic regions, hinder the universal goals of achieving legal and sustainable fisheries across the globe. We acknowledge that legality issues also arise in the context of small-scale fisheries that are governed by traditional and customary rules, which may not be formally recognized by statutory or codified law [24].

While certain States, individually or jointly with others, have showed progress in adopting relevant policies, plans of action and regulatory measures to combat illegal fishing (e.g. [25–31]), low compliance with fisheries laws and regulations by the fisheries sector persist in many countries (e.g. [32–36]). The question of how to best address illegal fishing in a country, including by ensuring that the adequate national legal frameworks (i.e., including fisheries, administrative, criminal, environmental, and other laws) are in place, continues to present challenges. An aspect of these challenges relates to the scholarly debate within and across interacting fields of law, such as environmental law, wildlife conservation law, transnational organised crime law, and fisheries law, and which cover the challenges, legal developments, and suggest potential legal solutions for IUU fishing [e.g., [37–50]]. This debate has raised two overarching questions on the linkages between 'illegal fishing' and 'crimes in the fisheries sector', which we explore in this article. First, whether criminal law processes lead to better compliance with fisheries laws than civil and/or administrative law processes, or are a more effective approach to tackle illegal fishing. Second, a corollary of the first, is whether the problem of illegal fishing persists due to the lack of criminalization of violations of fisheries legislation, or the resistance of States in criminalizing illegal fishing activities. Our assessment analyses the current legislative practice of States in addressing illegal fishing. We aim to demonstrate that the options used to combat illegal fishing set out in national fisheries legislation are not limited to a single type of enforcement approach.

This article is structured in four parts, following this introduction. The first part explores international law and States' responsibilities to combat illegal fishing. The second part discusses the implementation of international law to combat illegal fishing through national legislation. The third part analyses the question of criminalizing or not criminalizing illegal fishing, and in particular the position taken by some scholars in favour of the former option as a means to improve the responses to illegal fishing worldwide. In the fourth part of the article, we explain the method used to assess and examine the primary fisheries legislation of States and the European Union (EU), to better understand the enforcement approaches adopted by the examined fisheries legislation, the legislative responses in terms of empowerment of national authorities, the delineation of liability, the establishment of enforcement processes, and the sanction scheme, including the level of sanctions for illegal fishing. Our assessment of national fisheries legislation shows that most States and the EU follow a dual enforcement approach, which includes provisions enabling the use of both administrative and criminal processes and sanctions to enforce against illegal fishing and fishing related activities. With this contribution, we aim to ultimately support the realization of the Sustainable Development Goal (SDG) 14, target 14.4 aimed at effectively regulating harvesting and ending overfishing, IUU fishing and destructive fishing practices [51].

2. International law and States' responsibilities to combat illegal fishing

The international legal framework for combating illegal fishing is reflected in a tapestry of binding and non-binding regional and global instruments that establish and elaborate the duties and responsibilities of States in their various capacities to ensure legal and sustainable fishing. According to the instruments of adherence to the relevant binding international instruments, the applicable international obligations apply to a significant number of States which include important fisheries producers. The LOSC [22] currently has 168 parties.[1] The 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) [52] currently has 92 parties.[2] The 2009 Agreement on Ports States Measures to prevent, deter and eliminate Illegal, Unreported and Unregulated fishing (PSMA) [53] has 74 parties,[3] and the 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement) [54] has 45 parties.[4] The EU is a party to all these instruments, which strengthen the implementation of these treaties and agreements in all the 27 EU Member States. According to the FAO, the top ten global capture fisheries producers, as of 2018,

[1] At the time of final writing (December 2022) the number of State parties to the LOSC was as listed.

[2] At the time of final writing (December 2022) the number of State parties to UNFSA was as listed.

[3] At the time of final writing (December 2022) the number of State parties to the PSMA was as listed.

[4] At the time of final writing (December 2022) the number of State parties to the Compliance Agreement was as listed.

were China, Indonesia, Peru, India, Russia, United States of America (USA), Viet Nam, Japan, Norway and Chile [1]. Most of these States are parties to the LOSC, UNFSA and the PSMA. The USA and Peru, while non-parties to the LOSC, are parties to and thus bound by the provisions of the PSMA and the Compliance Agreement. Japan, Norway, Russia and Viet Nam, in turn, are all parties to the LOSC, UNFSA and PSMA.

Pursuant to Articles 56, 58 and 62 of the LOSC [22], coastal States not only have sovereignty over their territorial seas and archipelagic waters (subject to certain duties and responsibilities) and the sovereign right to explore, exploit, conserve and manage the resources in their exclusive economic zone (EEZ) and their continental shelf, but also have the responsibility to adopt and effectively implement appropriate measures to conserve and manage the resources within such marine areas. A coastal State is entitled to exercise enforcement jurisdiction against foreign fishing vessels in its EEZs to ensure compliance with the coastal State's fisheries laws and regulations (Article 73 LOSC). As Goodman explains, such enforcement powers are not absolute and must be used as 'necessary' and 'reasonable', terms which have not been interpreted and explained consistently by the relevant international jurisprudence, varying from one case to another [55] (pp. 223–224). In turn, the effective and frequent exercise of enforcement powers by coastal States (i.e., including boarding, inspection, arrest and judicial proceedings) are hampered by poor availability of financial resources dedicated to such enforcement activities, the high risks to life and wellbeing that are or can be suffered by enforcement agents, and the difficulty in detecting and responding to evolving and diverse types of illicit fishing activities [55] (p. 219). The lack or insufficient capacity of States to individually exercise enforcement powers against illegal fishing in their EEZs have resulted in States' strong reliance on cooperative responses [31,55], which Kaye categorised into three types: data exchange and observers; boarding and referral to the flag State; and boarding and arrest by a third State [31]. Regarding the second type, for instance, Article 21 of the UNFSA allows a State that is an RFMO Member, through its authorised officers, to board and inspect fishing vessels flying the flag of another State for enforcement purposes in ensuring compliance with CMMs.

In relation to flag State responsibility, Article 94 (1)(2)(b) of the LOSC [22] and Article 18 (3)(a)(b)(iv) of the UNFSA [52] provide that it is the responsibility of flag States to exercise effective jurisdiction and control over vessels flying their flag wherever the vessels operate in areas under and/or beyond national jurisdiction and to ensure that vessels flying their flag do not conduct unauthorized fishing within areas under the jurisdiction of other countries. Additionally, Article 18(1) of the UNFSA [52] and Article III.1 of the Compliance Agreement [54] require flag States to ensure that their flagged vessels comply with the applicable CMMs when fishing on the high seas. According to the International Tribunal for the Law of the Sea (ITLOS), the flag State has the *due diligence* obligation to take all necessary measures and enforcement procedures to ensure that its nationals and flagged vessels are not engaged in IUU fishing in coastal States' EEZ and in the high seas [56]. Similarly, an international organization, such as the EU, must exercise *due diligence* to ensure its Member States comply with their obligations in their various capacities, including as flag States [56](Para 168).

The responsibility of port States with respect to enforcement measures is addressed in Article 25(2) of the LOSC [22], Article 23 of the UNFSA [52], Article V.2 of the Compliance Agreement [54], and the PSMA [53]. Pursuant to the PSMA [53], States in their capacity as port States have the duty to implement effective port States measures. These measures include requiring foreign fishing vessels to submit an advance request for port entry. If a port State believes, on the basis of information provided prior to entry that a vessel has engaged in IUU fishing, the port State may allow entry of the vessel into its ports exclusively for the purpose of inspection to ensure that the vessel has not engaged in IUU fishing or fishing related activities in support of such fishing (Articles 8, 12–15, PSMA). Port States can deny port entry, port use or take enforcement actions where there are reasonable grounds to believe that such vessels have engaged in IUU fishing or fishing related activities in support of such fishing (Articles 9, 11 and 18, PSMA). Notably, pursuant to Article 20 of the PSMA [53], flag States also play a role in port States measures, specifically facilitating cooperation with port States regarding inspections.

In addition to the relevant legally binding instruments, international non-binding instruments build on and elaborate specific measures as well as provide guidance and tools to assist States to fulfil their duties and obligations established in the binding instruments. For instance, Article 1.1 of the 1995 Code of Conduct for Responsible Fisheries (CCRF) [57] states that the Code's provisions are largely based on the LOSC and mirrors provisions of the Compliance Agreement. The IPOA-IUU [5] conveniently consolidates the rights and duties of States in their capacities as flag, coastal and port States which are set out in different legally binding instruments and reflected in non-binding instruments and should be implemented to prevent, deter and eliminate IUU fishing. Para 68 of the IPOA-IUU further recommends the implementation of internationally agreed market-related measures to combat IUU fishing. Para 79 of the IPOA-IUU supports the flag State's duty to cooperate and take necessary measures to ensure that its vessels do not engage in any activity that undermines the effectiveness of international CMMs established by RFMOs, consistent with the LOSC (Articles 118–119), the UNFSA (Article 18(1)) and the Compliance Agreement (Article 3(1)). Para 79 of the IPOA-IUU further suggests specific actions by States including the application of CMMs, or the adoption of measures consistent with those CMMs, and the guarantee that their vessels do not undermine such measures, even if the flag State is not a member of such RFMO. In respect of coastal State measures, the IPOA-IUU restates, among others, the duty of coastal States to implement effective monitoring, control and surveillance (MCS) (Para 51.1) and ensure that transshipment and processing of fish in the coastal State waters are authorized or conducted in conformity with appropriate management regulations (Para 51.6). As regard port State measures, the IPOA-IUU recommends, for example, the type of information to be required by States in the exercise of their duty as port States including requiring advance request for port entry (Para 55), as established in the PSMA (Article 8).

In applying the CCRF, IPOA-IUU, PSMA, Compliance Agreement, as well as the 2014 Voluntary Guidelines for Flag State Performance [58], and the 2017 Voluntary Guidelines for Catch Documentation Schemes [59] – hereafter referred to collectively as 'FAO International Instruments' – and in considering the harmful effects of illegal fishing, one should, in turn, reflect on the substantive mandate of the FAO with respect to contributing to food security, nutrition, and poverty alleviation. This mandate is enshrined in the FAO Constitution [60] (Articles 1–2) and should indicate the level of concern which FAO and its Member States have regarding the detrimental impacts of illegal fishing and the desire to prevent, deter and eliminate it. Such concern is elevated when considering that the deleterious impacts of illegal fishing are amplified for certain demographics, such as the small-scale fisheries sector with its vulnerabilities and the special requirements of its stakeholders, as recognized by the 2014 Voluntary Guidelines on Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) [61]. Thus, the implementation of the FAO International Instruments, their emphatic call on States to combat illegal fishing, and the responses thereto should be balanced and shaped by the ultimate concern of preserving the key role of fisheries in supporting livelihoods of coastal, rural, and fishing communities around the world. For instance, the MCS of illegal fishing in small-scale fisheries should entail the application of systems that are 'suitable' to this sector, and involve small-scale fisheries actors [61] (Section 5.16) as part of the responses. At the same time, this does not mean neglecting effective means of deterrence, which may involve the application of conventional law enforcement approaches and severe sanctions for illegal fishing.

The international legal framework relevant to combat illegal fishing can be significantly strengthened by States through the implementation of international requirements in their national legal frameworks, as

dealt in the next part of this article.

3. Implementing international instruments and combatting illegal fishing via national legislation

States are bound by international law including the treaties and international agreements relating to fisheries such as the LOSC, the UNFSA, the Compliance Agreement and the PSMA, to promote sustainable fishing. Implementing such instruments at the national level usually occurs through national policies and the enactment of laws and regulations. While non-binding instruments do not impose a duty on States to internalize such instruments in their policy and legal frameworks, they often elaborate in greater detail the practical options or actions that complement or facilitate measures and approaches in binding agreements while providing useful guidance to support governments and interested stakeholders in interpreting and implementing the respective treaties and international agreements at the national level [62–67]. As Edeson noted, '[m]ost of the IPOAs and the Code of Conduct have many clauses that would not have had a chance of surviving were it not for the fact they were placed in the context of voluntary or non-binding instruments', and, as such, most participants in the fisheries sector recognize that these soft law instruments play a role in the fisheries regime [62] (pp. 103–104). This role is perceived in two main ways. First, on how States internalize non-binding instruments, fostering their implementation or reflecting its requirements in national policies, laws and regulations, as identified by Nakamura in relation to the SSF Guidelines [66]. Second, on the potential of such non-binding instruments to promote action, as Erikstein and Swan noted in relation to the Voluntary Guidelines for Flag State Performance, for whom these guidelines 'have significant potential to combat IUU fishing through fostering the effective implementation of flag States responsibilities' [64](p. 144).

Importantly, national fisheries legislation takes the obligations, commitments or good faith of States *inter se,* expressed in international fisheries instruments, and translates them into legal requirements of individuals and groups. It is particularly essential for voluntary commitments and measures in non-binding instruments to be translated into legislation at the national level to render them enforceable. As Kuemlangan clarifies, the role of national fisheries legislation is to regulate fisheries and support fisheries management by providing the terms and conditions under which fishing activities are undertaken and by whom [68]. In implementing national fisheries policy, national fisheries legislation establishes management responsibilities and delineates rights and responsibilities of fishers and various stakeholders ensuring their respective objectives are sustainably achieved [68]. Specifically in relation to illegal fishing and non-compliance, the national fisheries legislation establishes compliance and enforcement mechanisms and processes [68–70]. States members of a regional economic organization, such as the EU, may also have specific legislation in place to combat illegal fishing that reflect the applicable regional policy.

In addition to the need to effectively incorporate the requirements of international fisheries instruments in national legislation, the persistent global problem of illegal fishing is driven largely by inadequate MCS and poor enforcement of national fisheries laws and regulations thereby undermining the effectiveness of fisheries management [33,34]. The role of MCS is to ensure compliance with and enforcement of these laws and regulations, being essential to sound management and sustainable use of fisheries resources. Effective MCS, compliance and enforcement start with good supporting legislation. National fisheries legislation usually provides for the basic powers and functions necessary to ensure effective MCS, compliance and enforcement including: the powers, duties and obligations of the management authority, especially for regulating access to and the behaviour of persons engaged in the fishery (e.g., prohibition of certain activities or requiring that other activities be undertaken only under the authority of a licence); the competent entity to conduct MCS activities; the designation of observers and enforcement officers and their respective powers; the use of specific MCS tools (e.g. vessel monitoring systems); the protection of confidential information provided by fishers; powers of enforcement including the powers to arrest, detain and seize vessels or equipment used in violation of applicable laws and regulations; and, the judicial or other enforcement system and processes for establishing culpability and the applicable sanctions [68,70]. While it is worth exploring enforcement options including considering criminalisation of illegal fishing, the most pragmatic means to address inadequate MCS and the poor enforcement of national fisheries laws and regulations is to assist States, in particular developing countries, to build their capacity to do so.

As demonstrated further below, the national fisheries legislation of many States already establishes and enables the use of administrative and/or criminal law enforcement processes and penalties, thus rendering moot, the basic question of whether criminalising illegal fishing will help reduce IUU fishing. Given this existing practice, it is important to clarify the debate about criminalising illegal fishing, which we posit should actually focus on whether illegal fishing should be considered a serious violation, as reflected in the type of and severity of the applicable sanction scheme.

4. To criminalise or not to criminalise illegal fishing

This question – to criminalise or not to criminalise illegal fishing has been scrutinized by governments in recent years, especially among EU Member States [9]. We do not attempt to critically examine all aspects underpinning the scholarly debate on IUU fishing, particularly the linkages between illegal fishing and crimes relating to or occurring within the fisheries sector [37–50]. The present analysis rather focuses on the assumption taken by some scholars that the failure to criminalize fisheries offences is behind the proliferation of illegal fishing e.g., [42,45]. According to such position, IUU fishing has been addressed hitherto as primarily a 'fisheries management problem', through better fisheries management practices, as supported by appropriate MCS systems and enforcement in terms of processes, liability and sanctions that are administrative or civil in nature. Following this line of thought, the FAO is said to foster purely civil and administrative enforcement approaches to tackle illegal fishing, but not promote intra and inter-States initiatives that are at any level supportive of the use of criminal law enforcement processes and application of criminal sanctions for illegal fishing. To the contrary, the use of the measures and approaches in the FAO International Instruments and the related guidelines and tools to combat illegal fishing does not impliedly restrict or attenuate the enforcement approaches against illegal fishing, particularly the responses to more severe offences which may be considered as or involve crimes in the fisheries sector (e.g. fishing without an authorisation, falsification of fishing licenses, fraudulent or deceptive practices in the use and marketing of fish products).

De Coning and Witbooi assert that the regulatory framework for combatting illegal fishing has only ever been constructed from the fisheries management perspective – or, what they refer to as the 'IUU approach' – which is considered inefficient to handle the problem of illegal fishing due to its limited enforcement options [45]. They argue for a shift from this 'IUU approach' to a criminal enforcement approach as the solution to combatting illegal fishing [45]. Furthermore, in support of criminalizing fisheries offences, according to De Coning and Witbooi, is the limited enforcement options available from the perceived fisheries management lens and administrative enforcement approach, which are considered restricted to "imposing fines, denying entry to port, and detaining and blacklisting recalcitrant vessels" [45]. They argue that the criminal enforcement approach is better equipped to investigate (through established internal and external networks) individuals, who they claim are the true perpetrators of illegal fishing [45]. Furthermore, according to other scholars who suggest criminalization of fisheries laws' violations to tackle illegal fishing, the punishments available under a criminalized system are more effective than

those available under the fisheries management lens [42,45]. However, the lack of criminalization of illegal fishing is not a problem in itself, nor the opposite can be deemed as a solution, given that in fact many States already provide for criminal sanctions and processes to address illegal fishing (see results further below).

Additionally, the veracity of the contentions that FAO and the IPOA-IUU are inherently opposed to criminal law enforcement of fisheries violations is not supported by the developments leading to the adoption of the IPOA-IUU by FAO as evidenced by the contributions from which FAO Member States drew to formulate the IPOA-IUU, and the results of the research reported in the sections following this. In the Expert Consultation on IUU Fishing in 2000, Kuemlangan et al. referred to the prevailing practice of enforcement against illegal fishing using criminal trials and the need to supplement this with civil and administrative penalties [71]. The IPOA-IUU [5] does refer to the 'adoption of a civil sanction regime based on an administrative penalty scheme' (Para 21), but this is just an option and should not be seen as a hortatory rule. In fact, the same Para 21 of the IPOA-IUU recommends that sanctions for IUU fishing should be 'of sufficient severity to effectively prevent, deter and eliminate IUU fishing and to deprive offenders of the benefits accruing from such fishing'. Consequently, the level of severity of a sanction could not be restricted to mere civil and administrative enforcement schemes, but would rather depend on States' approaches to enforcement against illegal fishing activities. Certain types of these fisheries violations (e.g. unlicensed fishing, fishing protected species, fishing in no-take zones) could be considered as severe as crimes and thus treated as crimes in national legislation.

While there is merit in exploring administrative enforcement procedures and sanctions, these options are not as limited as De Coning and Witbooi suggest. There is a broad margin of discretion in States' power to regulate fisheries, including enforcement in fisheries, pursuant to the LOSC [22]. Article 62(4), in elaborating the rights of the coastal State with respect to utilization of living resources in the EEZ, provides that the nationals of other States fishing in the EEZ "shall comply with the conservation measures and with the other terms and conditions established in the laws and regulations of the coastal State". The LOSC further provides that these laws and regulations may concern 'enforcement procedures' (Article 62(4)(k), LOSC), without specifying which type of enforcement approach should be adopted by the State. This normative competence of costal States to *legislate* on enforcement of fisheries laws and regulations is not detailed by the LOSC, which rather details the substantive competence of such States to *enforce* fisheries laws and regulations, under Article 73 of the LOSC seen above. As such, coastal States can enforce their laws and regulations by boarding, inspecting, arresting and providing judicial procedures (Article 73(1), LOSC), as well as promptly releasing foreign fishing vessels in the EEZ (Article 73 (2), LOSC). In respect of judicial proceedings or judicial enforcement, scholars noted that 'most legal systems require the prosecution to submit sufficient, reliable evidence to establish the elements of the offence with the requisite level of certainty' [55] (p. 252) and [72] (p. 27). Goodman further considers that presumptions should be used with caution to respect the reasonableness, due process and fair trial requirements under international law, and, as she affirms, '[o]f course, violations of fisheries law do not [always] have to be dealt with through criminal – or even "judicial" – proceedings' [55] (p. 252). This assertion strengthens our findings in recognizing that criminal proceedings are actually often used by States in enforcing illegal fishing, but are not necessarily exclusive, being in fact offered alongside administrative and civil enforcement approaches in national fisheries legislation.

Article 73 of the LOSC does not limit the ability of States to, through their national fisheries legislation, grant enforcement powers of authorized fisheries officials in areas under national jurisdiction. Consequently, the fisheries legislation of many countries grants powers to the fisheries authorities, which mirror, and sometimes exceed, the normal criminal law enforcement powers of the national police. For example, the provisions on the scope of application of national fisheries legislation often provides for its extraterritorial application (e.g., Section 3(6) of the fisheries law of Papua New Guinea [73]; Article 4(2) of the fisheries law of Angola [74]; Section 1.4(2) of the fisheries law of Liberia [75]; Article 3(e) of the fisheries law of Madagascar [76]; Section 4(f) of the fisheries law of Kenya [77]; Section 3(3) of the fisheries law of South Africa [78]). Based on this, the competent national authorities may exercise enforcement powers over their respective flagged fishing vessels and foreign fishing vessels (and nationals) in the EEZ which, for other purposes not specified in article 56 of the LOSC, is an area beyond national jurisdiction. In comparison, the enforcement powers of the national police in respect of violations of other laws including typical criminal acts are limited to the territorial sea and in the contiguous zone in respect of specific laws, actions and omissions. The only limitation imposed by Article 73 of the LOSC [22] concerns the prohibition, unless otherwise stated by agreement, of coastal States from imposing the penalty of imprisonment and any other form of corporal punishment for violations committed in their respective EEZs (Article 73(3), LOSC).

Some other scholars suggest an alternative approach which aligns with the recommendations for recasting illegal fishing, in the context of IUU fishing, as a serious violation or a serious crime which should attract strong enforcement response and penalties. Nilufer Oral proposes redefining IUU fishing 'as one of the most serious international crimes affecting the international community as a whole, on par with crimes against humanity' [37] (p. 375). Caddell, Leloudas and Soyer contend that the involvement of organized criminal groups in the fisheries sector poses greater risks to society and is worthy of greater punishment, and merit a suite of responses to address the issue including: a closer alignment with criminal law facilitating the resort to weighty sanctions, including financial restitution and incarceration; application of a separate and well-resources toolkit, including the pursuit of the proceeds of illicit activity and sanctions against the organizational entities behind IUU fishing rather than individual; and, mobilization of political pressure and financial resources; and targeted investigations of organised syndicates [40] (pp. 408–409). For Palma-Robles, it is important to enhance the discussion across fisheries law, environmental law, transnational criminal law to determine "the appropriate criminal and administrative penalties, mutual legal assistance, and use of confiscated assets to develop and support programs designed to prevent and reduce fisheries crime" [46] (p. 165). Teletsky acknowledges the wide variety of enforcement action at the national level and considers that illegal fishing should be seen from its transnational organized crime dimensions [47] (p. 945).

The question of criminalising or not criminalising illegal fishing has been discussed within the work of the UN Office on Drugs and Crime (UNODC) over the past decade. The UNODC has been working on this and related topics in response to the concerns posed by United Nations General Assembly (UNGA), as annually reiterated since 2008, on 'the possible connections between international organized crime and illegal fishing', encouraging States to 'study the causes and methods of and contributing factors to illegal fishing' [2,79]. The understanding of the UNODC about whether illegal fishing constitutes a crime or not has evolved and changed over time. In 2010, the '*illicit harvesting of natural resources*, in particular threatened animal species, timber and *fish*' was considered by the UNODC as a form of transnational organized environmental crime [80] (p. 149). Such understanding was broadened by the Secretariat of the Conference of the Parties to the UN Convention on Transnational Organized Crime (UNTOC), which noted that not only illegal fishing, but the full concept of IUU fishing is among the range of offences included in the definition of international environmental crimes [81] (para 36). In 2011, a UNODC report highlighted the occurrence of transnational organized crime and other criminal activities in the fishing industry, examining the latter's vulnerabilities to and association with, for example, human trafficking and smuggling of migrants [82]. The UNODC report noted that 'most IUU fishing is environmental crime' and that IUU fishing was a too narrow concept that did not cover all criminal activities in the fishing industry [82] (p. 96). The

term used therein was 'marine living resources crime', defined as a 'criminal conduct that may have negative consequences on the marine living environment' [82] (p. 127). This approach was later dispersed by subsequent UNODC initiatives, embracing the campaign against 'fisheries crime', the latter which was considered as 'a range of illegal activities in the fisheries sector' [83–86]. The UNODC reiterated its fisheries crime approach in a 2019 guide addressing corruption in the fisheries sector, aimed at reaching countries to 'bolster the regulatory and enforcement frameworks they set up to fight fisheries crime' [87] (p. vii), in support of the implementation of the UN Convention against Corruption (UNCAC).

Only recently has the UNODC shifted its approach to a more nuanced one, referring to a 'UNODC approach to crimes in the fisheries sector' [88], as opposed to 'fisheries crime'. This new UNODC approach is significantly important as it has led to a renewed interest and focus on IUU fishing and, in particular, illegal fishing, maintaining a link with such fishing but distinguishing it from crimes in the fisheries sector. This nuanced approach also adds clarity and avoids the risk associated with the indiscriminate use of the term 'fisheries crime', in particular the negative implications that such use of the term generates for certain stakeholders in the fisheries sector such as the small-scale fisheries sector and its vulnerabilities especially of being associated with transnational organized crime and criminal activities. There are, in fact, multiple criminal activities that take advantage of the fisheries sector to perform, for instance, human trafficking, piracy, and tax crimes [83,89]. This new UNODC approach accepts that crimes in the fisheries sector covers a broad range of illegal activities and offences which are 'different to IUU fishing, although are often related and occurs at the same time'; 'may or may not be directly linked to the fishing operations', and 'frequently meet the criteria for UNCAC and UNTOC to apply' [88]. This approach differentiates crimes in the fisheries sector between 'crimes associated with the fisheries sector', which takes advantage of the fisheries sector without involving it directly (e.g., trafficking of firearms using fishing vessels); and 'crimes in the fisheries value chain', which are not 'illegal fishing' per se but occur with the participation of the fisheries sector (e.g., documentation fraud and corruption) [88]. As such, the question of criminalization or not of illegal fishing has been addressed more appropriately and the efforts led by the UNODC to combat crimes in the fisheries sector should continue to reflect this nuanced and cautious approach.

With respect to fisheries law, the offences and the associated process can have different natures depending on the country. Enforcement schemes can be predominately administrative, civil, or criminal; or they can be both administrative and criminal; or all three. The preference for a given enforcement scheme generally depends on the legal system of the country - common law (where case-law and published judicial decisions are also a source of law) or civil law (where the primary source of law is the codified statutes and laws); the economic activity associated with fisheries and the requirements based on compliance with technical standards; the degree of the States' tradition with administrative agencies exercising judicial powers in the case of administrative sanctions; and the States' ability to ensure due process. According to the present research and analysis of national primary fisheries legislation, the trend in States' legislative practice appears to be towards a combination of both criminal and administrative enforcement processes and sanctions.

5. Materials and methods

This research is based on the analyses of fisheries legislation of 93 countries who are FAO Member states, and the EU using FAOLEX database revising and building on a 2017 analysis [90]. The selection of the countries to cover in the analyses took into account the need to ensure equitable geographical distribution; quantitative availability of fisheries laws by country; and adequate representation of countries with different legal traditions (civil law and common law). Analysis of the MCS and enforcement provisions of the fisheries legislation of each selected country was undertaken to determine whether the enforcement approach is of an administrative and/or criminal nature.

Only the main national fisheries legislation i.e., the primary fisheries law of each country was examined. In a few countries (e.g., Congo, Guinea, Mauritania and Senegal), where the fisheries law was found in two pieces of legislation (one for marine fisheries and another for inland fisheries), both legislation were analysed. The analysis in respect of the EU focused on the European Council Regulation establishing a Community system to prevent, deter and eliminate IUU fishing, as well as the related Council Regulation. The Cayman Islands is a rare case as it has no specific fisheries legislation. Therefore, the Cayman Island's legislation on national conservation was examined as it provides for the protection of marine resources, and contains provisions for the enforcement of rules that are similar to the provisions of legislation for the conservation and management of fishery resources.

The review of relevant literature on crimes in fisheries and administrative offences in fisheries [41–50,68–70] reveals interesting features, for instance, that one of the main features distinguishing an administrative sanction from a criminal one is the competent authority to impose the sanction, which is the executive branch of government for administrative sanctions and the court for criminal ones. Another important feature characterizing administrative processes is the possibility of compounding of offences, as the enforcement of criminal violations in many jurisdictions does not usually allow for alternative negotiable arrangements. The authors also found that, where legislation did not explicitly refer to criminal processes, the use of specific words indicated that the criminal enforcement approach was used. These specific words included the terms 'prosecuted', 'convicted' and/or 'guilty' and 'imprisonment'.

Based on these considerations, the authors agreed on the methodology to be applied throughout the analysis of the primary fisheries legislation of the selected 93 countries and the EU. In each examined fisheries legislation, the analysis focused on identifying the administrative and/or criminal nature of the enforcement approach based on four criteria (referred to as the 'four enforcement-approach criteria'): (i) the authority competent to enforce the violation of a fisheries law; (ii) the process applicable to ensure that the sanction for a fisheries offence is duly applied to the offender; (iii) the liability arising from a fisheries offence; and (iv) the sanction applicable for illegal fishing.

The team grouped the national legislation by analysing enforcement related provisions in line with the four criteria above and labelled them as either having an administrative (or civil) nature, criminal nature, or both – which are represented, in shorthand, as 'A′, 'C′ or 'AC' in the table. Where the fisheries legislation did not provide sufficient elements to determine any of those options, the team used the label 'U′ to indicate that the analyses is inconclusive. After filling each of the four criteria, it was possible to better ascertain the predominant nature of the enforcement approach in the relevant country as being either administrative, criminal or both.

6. Results

The findings of this desk-based quantitative assessment are provided in Table 1. For ease of reference and visualization, the titles of the main fisheries primary legislation were organized, first, by the year of adoption of the original text (without reference to the years of subsequent amendments), then a shortened version of their original title (with reference to the legislation's numbers, where applicable). The last column on the right of the table provides the overall results from applying the four criteria, indicating the administrative and/or criminal enforcement approach, which are highlighted in bold. The table reflects the strict interpretation of the examined primary fisheries legislation of the selected countries and the EU. The evaluation of whether the countries and the EU have, in practice, exercised primarily administrative and/or criminal enforcement processes, is beyond the scope of this

Table 1
Findings of assessing the four enforcement-approach criteria in the main fisheries primary legislation of 93 countries and the EU.

Region	Country	Main fisheries primary legislation (without ref. to amendments)	Criteria				Enforcement approach
			Authority	Process	Liability	Sanction	
AFRICA	1. Algeria	2001 Fisheries and Aquaculture Law No. 01–11	C	C	C	C	**C**
	2. Angola	2004 Fisheries Law No. 6-A/04	AC	AC	AC	AC	**AC**
	3. Benin	2014 Fisheries and Aquaculture Framework Law No. 2014–09	AC	AC	AC	AC	**AC**
	4. Cabo Verde	2020 Fisheries Legislative Decree No. 2/2020	AC	A	A	A	**A**
	5. Cameroon	1994 Fisheries, Fauna and Forestry Regime Law No. 94/01	C	AC	C	AC	**AC**
	6. Comoros	2020 Revised Fisheries and Aquaculture Code No. 20–051	AC	AC	AC	AC	**AC**
	7. Congo	2010 Inland Fisheries and Aquaculture Law No. 3–2010 2000 Marine Fisheries Law No. 2–2000	AC	AC	AC	AC	**AC**
	8. Côte d'Ivoire	2016 Fisheries and Aquaculture Law No. 2016–554	AC	AC	AC	AC	**AC**
	9. Djibouti	2002 Fisheries Code Law No. 187/AN/02/4 ème L	AC	AC	AC	AC	**AC**
	10. Egypt	1983 Law on fishing, aquaculture and fish farms No. 124	AC	AC	AC	AC	**AC**
	11. Guinea	2015 Marine Fisheries Code Law No. 2015/26/AN 2015 Inland Fisheries Code Law No. 2015/27/AN	AC	AC	AC	A	**AC**
	12. Guinea Bissau	2011 Fisheries Decree-Law No. 10/2011	AC	A	A	A	**A**
	13. Kenya	2016 Fisheries Management and Development Act No. 156	AC	AC	AC	AC	**AC**
	14. Liberia	2019 Fisheries and Aquaculture Management and Development Law	AC	AC	AC	AC	**AC**
	15. Madagascar	2016 Fisheries and Aquaculture Code Law No. 215–053	AC	AC	U	AC	**AC**
	16. Mauritania	2019 Inland Fisheries and Aquaculture Code Law No. 2019–035 2015 Marine Fisheries Code Law No. 2015–017	AC	AC	AC	AC	**AC**
	17. Morocco	1973 Marine Fisheries Law No. 15–12 1922 Inland Fisheries Law No. 1–73–255	AC	AC	AC	AC	**AC**
	18. Mozambique	2013 Fisheries Law No. 22	A	A	AC	A	**A**
	19. Nigeria	1992 Sea Fisheries Act No. 29	C	C	U	C	**C**
	20. São Tomé e Príncipe	2001 Fisheries and Fisheries Resources Law No. 9/2001	A	AC	AC	AC	**AC**
	21. Senegal	2015 Marine Fisheries Code Law No. 2015–18 1963 Inland Fisheries Law No. 63–40	AC	AC	AC	AC	**AC**
	22. Seychelles	2014 Fisheries Act No. 20	AC	AC	AC	AC	**AC**
	23. Sierra Leone	2018 Fisheries and Aquaculture Act No. 10	AC	AC	AC	AC	**AC**
	24. Somalia	1985 Fisheries Law No. 9	C	C	C	AC	**C**
	25. Tanzania	2020 Deep Sea Fisheries Management and Development Act No. 5 2003 Fisheries Act No. 22	AC	AC	AC	AC	**AC**
	26. Togo	2016 Fisheries and Aquaculture Law No. 2016–026	C	C	C	C	**C**
	27. Tunisia	1994 Fisheries Law No. 94–13	AC	AC	AC	AC	**AC**
AMERICAS AND THE CARIBBEAN	28. Argentina	1998 Fisheries Law No. 24–922	A	A	A	A	**A**
	29. Bermuda	1972 Fisheries Act (Chapter 210)	C	C	C	C	**C**
	30. Bolivia	2017 Sustainable Fisheries and Aquaculture Law No. 938	A	A	A	A	**A**
	31. Canada	1985 Fisheries Act (RSC 1985, c. F-14)	AC	AC	AC	AC	**AC**
	32. Cayman Islands	2013 National Conservation Law No. 24	U	C	C	C	**C**
	33. Chile	1989 Fisheries and Aquaculture Law No. 18.892	AC	AC	AC	AC	**AC**
	34. Colombia	1990 General Fisheries Statute Law No. 13	AC	AC	AC	AC	**AC**
	35. Costa Rica	2005 Fisheries and Aquaculture Law No. 8436	A	A	AC	AC	**AC**
	36. Dominican Republic	2004 Fisheries and Aquaculture Council Law No. 307/04 2000 Environment and Natural Resources Law No. 64/00	AC	AC	AC	AC	**AC**
	37. Ecuador	2020 Fisheries and Aquaculture Development Organic Law AN-SG-2020–0155-O	A	A	AC	A	**A**
	38. El Salvador	2001 Fisheries and Aquaculture General Law Legislative Decree No. 637	A	A	AC	A	**A**
	39. Grenada	1986 Grenada Fisheries Act No. 15	AC	AC	AC	AC	**AC**
	40. Guatemala	2002 Fisheries and Aquaculture General Law Decree No. 80–02	A	A	A	A	**A**
	41. Honduras	2015 Fisheries and Aquaculture General Law Decree No. 106–2015	A	A	AC	A	**A**
	42. Jamaica	2018 Fisheries Act No. 18	AC	AC	AC	AC	**AC**
	43. Mexico	2018 Sustainable Fisheries and Aquaculture General Law	A	A	AC	A	**A**
	44. Montserrat	2000 Fisheries Act (Cap. 9.01)	AC	AC	AC	AC	**AC**
	45. Panama	2021 Fisheries and Aquaculture Law No. 204	A	A	A	A	**A**
	46. Paraguay	2008 Fisheries and Aquaculture Law No. 3556/08	AC	AC	AC	AC	**AC**
	47. Peru	1992 Fisheries General Law Decree No. 25977	A	A	AC	A	**A**

(*continued on next page*)

Table 1 (*continued*)

Region	Country	Main fisheries primary legislation (without ref. to amendments)	Criteria				Enforcement approach
			Authority	Process	Liability	Sanction	
	48. Trinidad and Tobago	1916 Fisheries Act (Cap. 67:51)	C	C	C	C	**C**
	49. USA	1976 Magnuson-Stevens Fishery Conservation and Management Act, and 1995 Fisheries Act	AC	AC	AC	AC	**AC**
ASIA	50. Azerbaijan	1998 Fisheries Law No. I	AC	AC	AC	AC	**AC**
	51. Brunei Darussalam	2009 Fisheries Order No. S 25	A	AC	AC	AC	**AC**
	52. Cambodia	2006 Fisheries Law (Royal Kram NS/RKM/0506011)	AC	A/C	AC	AC	**AC**
	53. China	1986 Fisheries Law	AC	AC	AC	AC	**AC**
	54. Indonesia	2004 Fisheries Law No. 31	C	C	C	C	**C**
	55. Japan	1949 Fisheries Act No. 267	AC	AC	AC	AC	**AC**
	56. Lao People's Democratic Republic	2009 Fisheries Law No. 03/NA	AC	AC	AC	AC	**AC**
	57. Malaysia	1985 Fisheries Act No. 317	AC	AC	AC	AC	**AC**
	58. Maldives	2019 Fisheries Act No. 14/2019	A	A	AC	A	**A**
	59. Philippines	1998 Fisheries Code Act No. 8550	AC	AC	AC	AC	**AC**
	60. Republic of Korea	2009 Fisheries Act	AC	AC	AC	AC	**AC**
	61. Singapore	2019 Fisheries Act No. 11	AC	AC	AC	AC	**AC**
	62. Sri Lanka	1996 Fisheries and Aquatic Resources Act No. 2	AC	AC	AC	AC	**AC**
	63. Thailand	2015 Royal Ordinance on Fisheries B.E.2558	AC	AC	AC	AC	**AC**
	64. Viet Nam	2017 Fisheries Law (18/2017/QH14)	A	AC	AC	AC	**AC**
EUROPE	65. Albania	2012 Fisheries Law No. 64	AC	AC	AC	AC	**AC**
	66. Belgium	1954 Inland Fisheries Law 1891 Marine Fisheries Law	AC	AC	AC	AC	**AC**
	67. Bulgaria	2001 Law on Fisheries and Aquaculture	AC	AC	AC	AC	**AC**
	68. Croatia	2019 Law on freshwater fisheries 2017 Law on marine fisheries	AC	AC	AC	AC	**AC**
	69. Denmark	2017 Fisheries Act No. 19	AC	AC	AC	AC	**AC**
	70. Estonia	2015 Fishing Act	AC	AC	AC	AC	**AC**
	71. European Union	2009 Commission Regulation 2008 Council Regulation on IUU Fishing	AC	AC	AC	AC	**AC**
	72. Finland	2015 Fisheries Act No. 379	AC	AC	AC	AC	**AC**
	73. France	2015 Marine Fisheries and Rural Code Ordinance No. 2015–1248	AC	AC	AC	AC	**AC**
	74. Italy	2012 Fisheries and Aquaculture Legislative Decree No. 4	AC	AC	AC	AC	**AC**
	75. Latvia	1995 Fisheries Law	AC	AC	AC	AC	**AC**
	76. Lithuania	2000 Fisheries Law No. VIII-1756	AC	AC	AC	AC	**AC**
	77. Malta	2001 Fisheries Conservation and Management Act No. II	AC	AC	AC	AC	**AC**
	78. Montenegro	2009 Marine Fisheries and Mariculture Law 2018 Freshwater Fisheries and Aquaculture Law	AC	AC	AC	AC	**AC**
	79. Portugal	2020 Fisheries Decree-Law No. 73 2017 Planning and Sustainable Management of Aquatic Resources in Inland Waters Decree-Law No. 112	A	A	AC	A	**A**
	80. Russia	2004 Fisheries and Conservation of Aquatic Biological Resources Law	AC	AC	AC	AC	**AC**
	81. Spain	2001 Marine Fisheries Law No. 3 2013 Real Decree on serious fisheries offences No. 114	A	A	A	A	**A**
	82. Sweden	1993 Fisheries Act	AC	AC	AC	AC	**AC**
	83. United Kingdom	2020 Fisheries Act (Chapter 22)	AC	AC	AC	AC	**AC**
OCEANIA	84. Australia	1991 Fisheries Management Act	AC	AC	AC	AC	**AC**
	85. Federated States of Micronesia	2002 Marine Resources Act	AC	AC	AC	AC	**AC**
	86. Fiji	2012 Offshore Fisheries Management Decree No. 18	AC	AC	AC	AC	**AC**
	87. Nauru	2020 Coastal Fisheries and Aquaculture Act No. 12	AC	AC	AC	AC	**AC**
	88. New Zealand	1996 Fisheries Act	AC	AC	AC	AC	**AC**
	89. Palau	1972 Fishery Zone Law No. 6–7–14	C	C	C	C	**C**
	90. Papua New Guinea	1998 Fisheries Management Act	AC	AC	AC	AC	**AC**
	91. Samoa	2016 Fisheries Management Act No. 8	C	C	C	C	**C**
	92. Solomon Islands	2015 Fisheries Management Act No. 2	AC	AC	AC	AC	**AC**
	93. Tuvalu	2006 Marine Resources Act (48.16)	C	AC	AC	AC	**AC**
	94. Vanuatu	2014 Fisheries Act No. 10	AC	AC	AC	AC	**AC**

assessment.

The analyses established that the fisheries legislation of most of the countries – that is, 67 out of 93 – as well as the EU adopt a dual enforcement approach and includes provisions on both administrative and criminal processes and sanctions for illegal fishing. This does not necessarily mean that both processes are used in practice, but at least the examined fisheries legislation contains provisions that allow for the use of the two. For instance, in Benin, the fisheries legislation provides that violations thereunder are sought, ascertained, investigated, prosecuted and judged in accordance with criminal legislation while also providing for the possibility for the offender to request an administrative resolution before the matter is referred to the court. The amount of the transactions must be paid within the fixed deadlines given by the act of transaction, failing which legal action is initiated [91]. In Cameroon, the fisheries legislation allows any natural or legal person who contravenes its provisions, including by undertaking illegal fishing, to settle by

'transaction', without prejudice to the right of the public prosecutor to decide to pursue prosecution [92]. Such a transaction scheme is also permitted in Côte d'Ivoire, where legislation provides that sanctions for illegal fishing are both fines and imprisonment while empowering the Minister responsible for fisheries, with the support of an ad hoc commission, to negotiate a settlement with the alleged offenders [93].

The Australian fisheries legislation sets out a dual approach in enforcement which ascribes criminal responsibility to all offenders, but also allows for certain classes of offences (e.g. offences in relation to returns, general offences, and strict liability offence) to be paid via a specified sanction to the fisheries authority, as an alternative to prosecution [94]. The Kenyan fisheries legislation prescribes a dual approach based on a provision that clearly states that the prosecution of fisheries offences is conducted under the Criminal Procedure Code, while another provision gives the Director General the discretionary power to proceed administratively against any person who has been charged after consulting with the Cabinet Secretary and with the written consent of the Attorney-General. This administrative process is without prejudice to the criminal process [95]. In Canada, the dual enforcement approach is perceived in the national fisheries legislation which explicitly provides that all penalties and forfeitures thereunder are enforceable through summary conviction in the Criminal Procedure Code, but the legislation also allows for alternative measures outside of a judicial proceeding for certain offences. Alternative measures are permissible where its use is not inconsistent with the purpose of the act and the conditions outlined in the law are met [96].

In a smaller group of 26 out of the 93 examined countries, this research found that the national fisheries legislation had adopted an enforcement approach that is either predominantly/uniquely administrative, or predominantly/uniquely criminal.

A predominantly/uniquely *administrative* enforcement approach was identified in the fisheries legislation of 16 countries. These include 14 Latin American countries, out of which nine fisheries legislation provide for competent authorities, processes, and penalties of an administrative nature. For example, the Mexican fisheries legislation explicitly states that violations thereunder are sanctioned administratively, and those administrative sanctions remain applicable even when the violation also constitutes a crime, under other applicable legislation [97]. In Panama, the fisheries legislation outlines the administrative procedures for investigating and sanctioning violations of the fisheries laws or rules originating from RFMOs including explicitly referring to the Federal Law of Administrative Procedure for guidance in such proceedings [98]. The fisheries legislation of a few African countries also adopt an administrative enforcement approach. In Cabo Verde, the head of the competent authority for the inspection of fishing activities is competent for investigating fisheries offences (categorized as 'very serious', 'serious' and 'soft' offences) and conducting the administrative process, which can all be penalized by fines and, in particular for illegal fishing, the law provides for the civil liability of the fishing vessel's owner and the joint liability of the flag State [99]. Similarly, the same approach of classification of the fisheries offences in accordance with their degree of seriousness is found in the fisheries legislation of Mozambique [100]. However, in Mozambique, 'illegal fishing by foreigners' is classified as a crime, subject to penalty and imprisonment, under the jurisdiction of the Maritime Courts [100].

A predominantly/uniquely *criminal* enforcement approach was identified in the main fisheries legislation of 10 countries. Although not explicit, the enforcement approach used in the Nigerian fisheries legislation appears to be exclusively criminal, based on the interpretation of the words used such as being found 'guilty' or liable on 'conviction', to assign culpability – terms primarily associated with criminal law and procedure – and the corresponding penalty upon conviction of 'imprisonment' [101]. In the Somali fisheries legislation, while it requires the Ministry to resolve offences through negotiation, except for offences with heavy fines, the legislation specifically states that violations thereunder are deemed criminal, and so are the respective proceedings and penalties [102].

7. Conclusion

The 'most appropriate' legal strategy to tackle illegal fishing through regulatory frameworks does not rely on and should not depend upon the law-maker's emphasis on a particular enforcement approach, whether administrative, civil or criminal. As seen in this assessment, most States endorse a dual enforcement approach in their primary fisheries legislation with respect to the authority competent for processing fisheries offences, the respective process, applicable liability and sanctions for illegal fishing. The findings reveal that most countries have employed both administrative and criminal processes and sanctions to combat illegal fishing in their primary fisheries legislation. Hence, there is no single solution, at least in terms of what the national fisheries legislation by foreign fishers should provide for, with a view to tackling illegal fishing. It is not by purely focusing on management and MCS provisions, or in solely establishing rigorous processes and severe penalties of criminal sanctions and years of imprisonment that States can combat illegal fishing.

A vital consideration for ensuring that the primary fisheries legislation of a country is robust in facilitating effective enforcement to tackle illegal fishing is that the relevant laws take advantage of the most efficient and practical enforcement options made available by the countries' legal system and practice. At the same time, the fisheries legal framework must implement and be consistent with relevant international and regional instruments and standards. Notably, in accordance with the LOSC [22], national legislation of concerned States must include a provision on prompt release of the arrested foreign vessel and crew (Article 73(2), LOSC) and must not impose, for the violation of fisheries legislation, the penalty of imprisonment and any other form of corporal punishment in their respective EEZs, unless otherwise agreed by the concerned States (Article 73(3), LOSC). The procedure of prompt release is separate from, not incidental to or prejudicial to the coastal State's judicial or administrative proceeding (on the merits) against the vessel and crew for the violation of its fisheries laws [103].

Due to the complex nature of illegal fishing, the solution for this persisting global problem in fisheries seems to require a multipronged approach targeting different facets of the problem [104]. The actions and thinking promoted by legal scholars and international organizations is that combatting illegal fishing and crimes in the fisheries sector should not be limited or restricted to a single enforcement approach and softening the actions against illegal fishing, especially when it is accompanied by transnational organized crime dimensions. Irrespective of whether a country has established and emphasises an administrative/civil and/or criminal processes to enforce fisheries legislation, it is important that in applying the existing framework, States are attentive to the particularities of the fisheries context, especially with respect to the special needs of small-scale fisheries.

We submit that illegal fishing activities that involve elements of transnational organized crime should be considered a serious violation (or a serious crime), which should consequently attract congruent enforcement action. Indeed, members of the Pacific Islands Forum Fisheries Agency (FFA) have enjoyed relative success by treating illegal fishing as a serious matter regardless of whether administrative or criminal enforcement is used. The imposition of severe penalties for illegal fishing and the overall reduction in IUU fishing in the FFA region is a result of a combination of efforts, actions and approaches, including: building knowledge; revising legislation to ensure better MCS (through e.g., evidentiary provisions, higher penalties and forfeiture of vessels); raising awareness and education (stakeholders, enforcement officers, parliamentarians, judges) to change public and judiciary perception so that illegal fishing is considered a serious crime [105]. Steps towards recognising illegal fishing as a serious violation deserving severe penalties, as noted above, include: associating it with crimes in the fisheries sector and other aggravating aspects such as the harm it causes to

ecosystems and the environment; considering its transnational nature [47]; treating it as a crime against humanity [37]; or treating it as a serious crime where organised criminal groups are involved in such fishing [40]. In addition to these options, Lindley and Techera draw attention to the lack of synergies in the operation of the international community's toolkit essential to address illegal fishing, suggesting a 'regulatory pluralism approach' and the need to put in place a 'collaborative global body charged with bringing the instruments and actors' together [44]. Indeed, most scholars point to the importance of examining, interpreting and applying various fields of law relating to illegal fishing, and the concomitant and coordinated efforts from the respective institutions and stakeholders to address the problem. Our message is essentially the same, noting that, as regards national fisheries legislation, both criminal and administrative or civil enforcement approaches could be adopted by States, in line with State legislative practice.

At the international level, inter-agency collaboration particularly through the FAO and UNODC, has advanced the work in clarifying the linkages, challenges and legal responses to crimes in the fisheries sector [106]. We add to this initiative by having demonstrated how States have approached enforcement to address illegal fishing in national fisheries legislation and emphasising how to build on that. Our findings show that the use of criminal proceedings to tackle illegal fishing are not any close to an innovation in States' legislative practice, nor could such practice be considered insufficient by lack of criminalization of illegal fishing activities. Criminal proceedings are already in place and appear to have not been used effectively enough by States to tackle illegal fishing. This needs to change, commencing with viewing certain illegal fishing as a serious violation warranting adequate and sustained enforcement effort leading to the imposition of severe penalties to have the desired deterrent impact.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Julia Nakamura, Elizabeth-Rose Amidjogbe, Rudolph Hupperts, Teresa Amador and Alessandra Tomassi are currently working as legal consultants with the Development Law Service of the Food and Agriculture Organization of the United Nations (FAO) Legal Office. Teresa Amador is also working as a legal consultant with the Global and Regional Processes team of FAO Fisheries and Aquaculture Division. Blaise Kuemlangan is the Chief of the Development Law Service of FAO Legal Office, and Buba Bojang is a Legal Officer of FAO. They all declare that the views expressed in this article are exclusively personal and that nothing in this article expresses any opinion on the part of FAO.

Data availability

The data used was sourced from open source material available to the public.

References

[1] FAO, The State of World Fisheries and Aquaculture 2020: Sustainability in Action, FAO, Rome, Italy, 2020, https://doi.org/10.4060/ca9229en.

[2] Sustainable fisheries, including through the 1995 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, and related instruments, 2021. ⟨https://webcache.googleusercontent.com/search?q=cache:ji6jqZb0Q34J:https://digitallibrary.un.org/record/3952255%3Fln%3Den&cd=2&hl=en&ct=clnk&gl=au⟩ (accessed December 16, 2022).

[3] M. Mackay, B.D. Hardesty, C. Wilcox, The intersection between illegal fishing, crimes at sea, and social well-being, Front. Mar. Sci. 7 (2020). ⟨https://www.frontiersin.org/articles/10.3389/fmars.2020.589000⟩ (accessed December 16, 2022).

[4] T. Phelps Bondaroff, W. van der Werf, T. Reitano, THE ILLEGAL FISHING AND ORGANIZED CRIME NEXUS: Illegal fishing as transnational organized crime, The Global Initiative Against Transnational Organized Crime and the Black Fish, 2015.

[5] FAO, International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, 2001.

[6] FAO, Implementation of the International Plan of Action to Deter, Prevent and Eliminate, Illegal, Unreported and Unregulated Fishing, FAO,, Rome, Italy, 2002. ⟨https://www.fao.org/publications/card/en/c/1c805e8d-6184-5884-8a4e-7d55c16f39f8⟩ (accessed January 6, 2023).

[7] FAO, Checklists and technical guidelines to combat illegal, unreported and unregulated (IUU) fishing. Volume I: a consolidated checklist of coastal, flag and port State responsibilities to combat illegal, unreported and unregulated (IUU) fishing, FAO,, 2021, https://doi.org/10.4060/cb5992en.

[8] FAO, Checklists and technical guidelines to combat illegal, unreported and unregulated (IUU) fishing: Volume II. A legal checklist of the main duties and responsibilities of coastal, flag and port States, and internationally agreed market-related measures to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing, FAO,, Rome, Italy, 2021, https://doi.org/10.4060/cb6186en.

[9] T. Fajardo, To criminalise or not to criminalise IUU fishing: The EU's choice, Mar. Policy 144 (2022), 105212, https://doi.org/10.1016/j.marpol.2022.105212.

[10] G. Stølsvik, The development of the fisheries crime concept and processes to address it in the international arena, Mar. Policy 105 (2019) 123–128, https://doi.org/10.1016/j.marpol.2018.12.027.

[11] C. Johnson, Fisheries Enforcement in European Community Waters Since 2002—Developments in Non-Flag Enforcement, Int. J. Mar. Coast. Law 23 (2008) 249–270, https://doi.org/10.1163/092735208×272210.

[12] M.A. Hanafi, Absori, K. Dimyati, Law enforcement for fisheries crime (illegal fishing) through a transcendental approach, IOP Conf. Ser.: Earth Environ. Sci. 370 (2019), 012070, https://doi.org/10.1088/1755-1315/370/1/012070.

[13] A.Y. Sulistyawan, E. Indarti, R.B. Sularto, Legal enforcement approach by the Indonesia's Minister of Maritime Affairs and Fisheries (period 2014–2019) in combating illegal fishing in Indonesia: a legal philosophy study, 13, 2020.

[14] M. Rosello, Regional fishery management organisation measures and the imposition of criminal and administrative sanctions in respect of high seas fishing, Mar. Policy 144 (2022), 105213, https://doi.org/10.1016/j.marpol.2022.105213.

[15] R. Rayfuse, Countermeasures and high seas fisheries enforcement, Neth. Int Law Rev. 51 (2004) 41–76, https://doi.org/10.1017/S0165070×04000415.

[16] E. Papastavridis, Fisheries enforcement on the high seas of the Arctic ocean: gaps, solutions and the potential contribution of the european union and its member states, Int. J. Mar. Coast. Law 33 (2018) 324–360, https://doi.org/10.1163/15718085-13320002.

[17] T. Faiyaz, A.A. Arif, Towards a blue revolution in the bay of bengal: tackling illegal, unreported and unregulated fishing through effective regional cooperation, J. World Invest. Trade 23 (2022) 9–38, https://doi.org/10.1163/22119000-12340239.

[18] V. Schatz, Marine fisheries law enforcement partnerships in waters under national jurisdiction: the legal framework for inter-state cooperation and public-private partnerships with non-governmental organizations and private security companies, Ocean Yearb. Online 32 (2018) 329–375.

[19] L. Nøstbakken, Fisheries law enforcement—A survey of the economic literature, Mar. Policy 32 (2008) 293–300, https://doi.org/10.1016/j.marpol.2007.06.002.

[20] J. Nakamura, F. Hazin, Assessing the Brazilian federal fisheries law and policy in light of the Voluntary Guidelines for Securing Sustainable Small-scale fisheries, Mar. Policy 113 (2020), 103798, https://doi.org/10.1016/j.marpol.2019.103798.

[21] A.A. Arif, Legal status of maximum sustainable yield concept in international fisheries law and its adoption in the marine fisheries regime of Bangladesh: a critical analysis, Int. J. Mar. Coast. Law 32 (2017) 544–569, https://doi.org/10.1163/15718085-12323054.

[22] United Nations Convention on the Law of the Sea, 1982. ⟨https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=_en⟩ (accessed 16 December 2022).

[23] J.T. Theilen, What's in a name: the illegality of illegal, unreported and unregulated fishing, Int'L J. Mar. Coast. L 28 (2013) 533–550.

[24] A.M. Song, J. Scholtens, K. Barclay, S.R. Bush, M. Fabinyi, D.S. Adhuri, M. Haughton, Collateral damage? Small-scale fisheries in the global fight against IUU fishing, Fish Fish 21 (2020) 831–843, https://doi.org/10.1111/faf.12462.

[25] FAO, Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing in WECAFC Member Countries (2019-2029). Le Plan d'action régional visant à prévenir, à contrecarrer et à éliminer la pêche illicite, non déclarée et non réglementée (INDNR) dans les pays Membres de la COPACO (2019-2029). El Plan de acción regional para prevenir, desalentar y eliminar la pesca ilegal, no declarada y no reglamentada (INDNR) en los países miembros de la COPACO (2019-2029), FAO,, Rome, Italy, 2020, https://doi.org/10.4060/ca9457t.

[26] Fisheries Committee for the West Central Gulf of Guinea, Regional Plan of Action to Prevent, Deter and Eliminate IUU fishing (RPOA-IUU) for implementation at national and regional levels, 2019. ⟨https://fcwc-fish.org/resources/reports⟩ (accessed December 16, 2022).

[27] RPOA-IUU, Regional Plan of Action to Promote Responsible Fishing Practices including Combatting IUU Fishing in the Region (Republic of Indonesia, Australia, Brunei Darussalam, Cambodia, Malaysia, Papua New Guinea, The Philippines, Singapore, Thailand, Timor-Leste and Viet Nam), n.d. ⟨https://www4.fisheries.go.th/local/file_document/20170403165758_file.pdf⟩ (accessed March 17, 2022).

[28] J. Vince, B.D. Hardesty, C. Wilcox, Progress and challenges in eliminating illegal fishing, Fish Fish 22 (2021) 518–531, https://doi.org/10.1111/faf.12532.

[29] G.A. Oanta, Spain's action to control and suppress illegal, unreported and unregulated fishing: current status and future prospects, Int. J. Mar. Coast. Law 34 (2019) 642–667, https://doi.org/10.1163/15718085-23421031.

[30] S.-M. Kao, International actions against IUU fishing and the adoption of national plans of action, Ocean Dev. Int. Law. 46 (2015) 2–16, https://doi.org/10.1080/00908320.2014.957989.

[31] S. Kaye, Enforcement cooperation in combating illegal and unauthorized fishing: an assessment of contemporary practice, Berkeley J. Int'L L 32 (2014) 316–329.

[32] A. Arias, B.J. Bergseth, D. Weekers, C. Wilcox, Countering avoidance strategies used by fishers to avoid detection during illegal fishing, Front. Mar. Sci. 8 (2021) https://www.frontiersin.org/articles/10.3389/fmars.2021.619349 (accessed December 16, 2022).

[33] C.J. Donlan, C. Wilcox, G.M. Luque, S. Gelcich, Estimating illegal fishing from enforcement officers, Sci. Rep. 10 (2020) 12478, https://doi.org/10.1038/s41598-020-69311-5.

[34] R. Oyanedel, Illegal Fishing and non compliance. Marine and Fisheries Policies in Latin America, Routledge, 2019, p. 10, https://doi.org/10.4324/9780429426520-5.

[35] D. Cepić, F. Nunan, Justifying non-compliance: The morality of illegalities in small scale fisheries of Lake Victoria, East Africa, Mar. Policy 86 (2017) 104–110, https://doi.org/10.1016/j.marpol.2017.09.018.

[36] L.M. Cavole, C.C. Arantes, L. Castello, How illegal are tropical small-scale fisheries? An estimate for arapaima in the Amazon, Fish. Res. 168 (2015) 1–5, https://doi.org/10.1016/j.fishres.2015.03.012.

[37] N. Oral, Reflections on the past, present, and future of IUU fishing under international law, Int. Community Law Rev. 22 (2020) 368–376, https://doi.org/10.1163/18719732-12341435.

[38] E.R. van der Marel, Chapter 13. Problems and Progress in Combating IUU Fishing, in: R. Caddell, E.J. Molenaar (Eds.), Strengthening International Fisheries Law in an Era of Changing Oceans, Hart Publishing, 2019, pp. 291–318, https://doi.org/10.5040/9781509923373.

[39] R. Churchill, International trade law aspects of measures to combat IUU fishing and unsustainable fishing, in: R. Caddell, E.J. Molenaar (Eds.), Strengthening International Fisheries Law in an Era of Changing Oceans, Hart Publishing, 2019, pp. 319–350, https://doi.org/10.5040/9781509923373.

[40] R. Caddell, G. Leloudas, B. Soyer, Emerging Regulatory Responses to IUU Fishing, in: R. Caddell, E.J. Molenaar (Eds.), Strengthening International Fisheries Law in an Era of Changing Oceans, Hart Publishing, 2019, pp. 393–420, https://doi.org/10.5040/9781509923373.

[41] P. Vrancken, E. Witbooi, J. Glazewski, Introduction and overview: Transnational organised fisheries crime, Mar. Policy 105 (2019) 116–122, https://doi.org/10.1016/j.marpol.2018.12.016.

[42] P. Vrancken, State jurisdiction to investigate and try fisheries crime at sea, Mar. Policy 105 (2019) 129–139, https://doi.org/10.1016/j.marpol.2018.12.026.

[43] M. Isaacs, E. Witbooi, Fisheries crime, human rights and small-scale fisheries in South Africa: A case of bigger fish to fry, Mar. Policy 105 (2019) 158–168, https://doi.org/10.1016/j.marpol.2018.12.023.

[44] J. Lindley, E.J. Techera, Overcoming complexity in illegal, unregulated and unreported fishing to achieve effective regulatory pluralism, Mar. Policy 81 (2017) 71–79, https://doi.org/10.1016/j.marpol.2017.03.010.

[45] E. de Coning, E. Witbooi, Towards a new'fisheries crime' paradigm: South Africa as an illustrative example - ScienceDirect, (n.d.). ⟨https://www-sciencedirect-com.ezproxy.uow.edu.au/science/article/pii/S0308597×1500189X⟩ (accessed 21 February 2022).

[46] M.A. Palma-Robles, Tightening the net: the legal link between illegal, unreported and unregulated fishing and transnational crime under international law, Fac. Law, Humanit. Arts - Pap. (Arch.) (2015) 144–165, https://doi.org/10.1163/22116001-02901008.

[47] A. Telesetsky, Laundering fish in the global undercurrents: illegal, unreported, and unregulated fishing and transnational organized crime, Ecol. L. Q. 41 (2014) 939–998.

[48] G.A. Oanta, Illegal fishing as a criminal act at sea - Google Search, La Criminalité En Mer / Académie de Droit International de La Haye = Crimes at Sea / Hague Academy of International Law. 2012, 2014. ⟨https://www.google.com/search?q=Illegal+fishing+as+a+criminal+act+at+sea&rlz=1C1AVFC_enAU874AU874&oq=Illegal+fishing+as+a+criminal+act+at+sea&aqs=chrome.69i57j0i390l5.1864j0j4&sourceid=chrome&ie=UTF-8⟩ (accessed December 16, 2022).

[49] D. Liddick, The dimensions of a transnational crime problem: the case of iuu fishing, Trends Organ Crim. 17 (2014) 290–312, https://doi.org/10.1007/s12117-014-9228-6.

[50] H. Österblom, A. Constable, S. Fukumi, Illegal fishing and the organized crime analogy, Trends Ecol. Evol. 26 (2011) 261–262, https://doi.org/10.1016/j.tree.2011.03.017.

[51] A/RES/70/1 Transforming our world: the 2030 Agenda for Sustainable Development, 2015.

[52] 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, 2001. ⟨https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXI-7&chapter=21&clang=_en⟩ (accessed December 16, 2022).

[53] Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing., 2009. ⟨https://www.fao.org/port-state-measures/resources/detail/en/c/1111616/⟩ (accessed December 16, 2022).

[54] Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993. ⟨https://www.fao.org/treaties/results/details/en/c/TRE-000023/⟩ (accessed December 16, 2022).

[55] C. Goodman, Coastal State Jurisdiction over Living Resources in the Exclusive Economic Zone, Oxford University Press,, Oxford, New York, 2021.

[56] Request for an Advisory Opinion submitted by the Sub-Regional Fisheries Commission (SRFC) (Request for Advisory Opinion submitted to the Tribunal), 2015. ⟨https://www.itlos.org/fileadmin/itlos/documents/cases/case_no.21/advisory_opinion_published/2015_21-advop-E.pdf⟩.

[57] FAO, FAO Code of Conduct for Responsible Fisheries, FAO, Rome, Italy, 1995. ⟨https://www.fao.org/documents/card/en/c/e6cf549d-589a-5281-ac13-766603db9c03/⟩ (accessed December 17, 2022).

[58] Voluntary Guidelines for Flag State Performance, FAO, 2015.

[59] Voluntary Guidelines for Catch Documentation Schemes, FAO, 2017.

[60] Basic Texts of the Food and Agriculture Organization of the United Nations, 1980.

[61] FAO, Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication, FAO,, Rome, Italy, 2015. ⟨https://www.fao.org/documents/card/en/c/I4356EN⟩ (accessed December 17, 2022).

[62] W. Edeson, Closing the gap: the role of "soft" international instruments to control fishing, Aust. Year Book Int. Law 2000 (2000) 83–104.

[63] W. Edeson, The international plan of action on illegal unreported and unregulated fishing: the legal context of a non-legally binding instrument, Int. J. Mar. Coast. Law 16 (2001) 603–623, https://doi.org/10.1163/157180801×00243.

[64] K. Erikstein, J. Swan, Voluntary guidelines for flag state performance: a new tool to conquer IUU fishing, Int'L J. Mar. Coast. L 29 (2014) 116–148.

[65] L. Korseberg, The law-making effects of the fao deep-sea fisheries guidelines, Int. Comp. Law Q. 67 (2018) 801–832, https://doi.org/10.1017/S0020589318000192.

[66] J.N. Nakamura, Legal reflections on the small-scale fisheries guidelines: building a global safety net for small-scale fisheries, Int. J. Mar. Coast. Law 37 (2022) 31–72, https://doi.org/10.1163/15718085-bja10081.

[67] B. Hutniczak, C. Delpeuch, A. Leroy, Closing Gaps in National Regulations Against IUU Fishing, Organ. Econ. Coop. Dev. (OECD), Paris, Fr. (2019), https://doi.org/10.1787/9b86ba08-en.

[68] B. Kuemlangan, Legal Aspects. A Fishery Manager's Guidebook, John Wiley & Sons,, 2009.

[69] B. Kuemlangan, National Legislative Options to Combat IUU Fishing, 15-19 May 2000. Report of and Papers Presented at the Expert Consultation on Illegal, Unreported and Unregulated Fishing, Food & Agriculture Org.,, Sydney, Australia, 2001, p. 16, 15-19 May 2000.

[70] P. Cacaud, M. Kuruc, M. Spreij, Administrative Sanctions in Fisheries Law, Food and Agriculture Organization of the United Nations,, Rome, 2003.

[71] Expert Consultation on Illegal, Unreported and Unregulated Fishing, Report of and Papers Presented at the Expert Consultation on Illegal, Unreported and Unregulated Fishing, Sydney, Australia, 15-19 May 2000. Expert Consultation on Illegal, Unreported and Unregulated Fishing, Food & Agriculture Org.,, Sydney, Australia, 2001, p. 306.

[72] P. Flewwelling, C. Cullinan, D.A. Balton, R. Sautter, E. Reynolds, Recent trends in monitoring, control and surveillance systems for capture fisheries, FAO,, 2002.

[73] Fisheries Management Act 1998, n.d. ⟨http://www.paclii.org/pg/legis/consol_act/fma1998193/⟩ (accessed December 19, 2022).

[74] LEI DOS RECURSOS BIOLOGICOS AQUATICOS, 2004.

[75] AN ACT TO AMEND THE NATIONAL FISHERIES AND AQUACULTURE AUTHORITY LAW BY ADDING THERETO THE FISHERIES AND AQUACULTURE MANAGEMENT AND DEVELOPMENT, 2019. ⟨https://www.fao.org/faolex/results/details/en/c/LEX-FAOC192628/⟩ (accessed December 19, 2022).

[76] Loi n° 2015–053 du 16 décembre 2015 portant Code de la pêche et de l'aquaculture. | FAOLEX, 2015. ⟨https://www.fao.org/faolex/results/details/en/c/LEX-FAOC162704/⟩ (accessed December 19, 2022).

[77] Fisheries and Management Development Act, 2016.

[78] Marine Living Resources Act 18 of 1998, 1998. ⟨https://www.gov.za/documents/marine-living-resources-act-27-may-1998–0000⟩ (accessed December 19, 2022).

[79] Resolution adopted by the General Assembly for Sustainable fisheries, including through the 1995 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, and related instruments, 2009.

[80] UNODC, The globalization of crime - A transnational organized crime threat assessment, UNODC, 2010. //www.unodc.org/unodc/en/data-and-analysis/tocta-2010.html (accessed December 19, 2022).

[81] U. Secretariat, Activities of the United Nations Office on Drugs and Crime to address emerging forms of crime:, UN, 2010. ⟨https://digitallibrary.un.org/record/693852⟩ (accessed December 19, 2022).

[82] UNODC, TRANSNATIONAL ORGANIZED CRIME IN THE FISHING INDUSTRY, in: UNODC, 2011: p. 144.

[83] UNODC, Fisheries Crime: transnational organized criminal activities in the context of the fisheries sector, 2016.

[84] UNODC and partners foster transnational cooperation to combat fisheries crime, United Nations: UNODC Regional Office for Southeast Asia and the Pacific. (2020). //www.unodc.org/roseap/en/2020/08/ccp-fishnet/story.html (accessed December 19, 2022).

[85] UNODC, Fisheries crime: bringing to light the perfect storm of illegal activities in the fishing sector, United Nations: Office on Drugs and Crime. (n.d.). //www.unodc.org/unodc/en/frontpage/2016/May/fisheries-crime_-bringing-to-light-

the-perfect-storm-of-illegal-activities-in-the-fishing-sector.html (accessed December 19, 2022).
[86] UNODC, MID-TERM INDEPENDENT PROJECT EVALUATION OF THE GLOBAL PROGRAMME FOR COMBATING WILDLIFE AND FOREST CRIME ANALYTIC TOOLKIT, United Nations Office on Drugs and Crime, 2020.
[87] UNODC, Rotten fish: A guide on addressing corruption in the fisheries sector, UNODC, Vienna, 2019.
[88] UNODC, UNODC Approach to Crimes in the Fisheries Sector, UNODC, 2020.
[89] OECD, Evading the Net: Tax Crime in the Fisheries Sector, OECD, 2013.
[90] FAO, FAOLEX Database | Food and Agriculture Organization of the United Nations, (n.d.). ⟨https://www.fao.org/faolex/en/⟩ (accessed March 18, 2023).
[91] Loi-cadre n° 2014–19 du 07 août 2014 relative à la pêche et à l'aquaculture en République du Bénin. | FAOLEX, 2014. ⟨https://www.fao.org/faolex/results/details/fr/c/LEX-FAOC162059/⟩ (accessed December 19, 2022).
[92] Loi no 94/01 portant régime des forêts, de la faune et de la pêche. | FAOLEX, 1994. ⟨https://www.fao.org/faolex/results/details/en/c/LEX-FAOC004845⟩ (accessed December 19, 2022).
[93] Loi n° 2016–554 du 26 juillet 2016 relative à la pêche et à l'aquaculture. | FAOLEX, 2016. ⟨https://www.fao.org/faolex/results/details/fr/c/LEX-FAOC159952/⟩ (accessed December 19, 2022).
[94] DAFF, Fisheries Management Act 1991, Attorney-General's Department, 1991. https://www.legislation.gov.au/Details/C2021C00546/Html/Text, http://www.legislation.gov.au/Details/C2021C00546 (accessed December 19, 2022).
[95] RSC 1985, c F-14 | Fisheries Act, CanLII, 1985. ⟨https://www.canlii.org/en/ca/laws/stat/rsc-1985-c-f-14/latest/rsc-1985-c-f-14.html⟩ (accessed December 19, 2022).
[96] Ley General de Pesca y Acuacultura Sustentables, 2018.
[97] Ley No 204 - Ley que regula la pesca y la acuicultura en la República de Panamá. | FAOLEX, 2021. ⟨https://www.fao.org/faolex/results/details/es/c/LEX-FAOC201649/⟩ (accessed December 20, 2022).
[98] Decreto-Legislativo No 2/2020, que define o regime geral da gestão e do ordenamento das atividades de pesca nas águas marítimas nacionais e no alto mar, 2020.
[99] I. SERIE, Lei No 3/90, 1990.
[100] Lei n.o 20/2019: Lei de Revisão da Lei n.o 4/96, de 4 de Janeiro, Lei do Mar., 2019. ⟨https://www.fao.org/faolex/results/details/en/c/LEX-FAOC192253⟩ (accessed January 9, 2023).
[101] Sea Fisheries Act, 1992. ⟨https://www.fao.org/faolex/results/details/en/c/LEX-FAOC018399/⟩ (accessed December 20, 2022).
[102] Fisheries law of the Federal Republic of Somalia (Review of 2016). | FAOLEX, 2016. ⟨https://www.fao.org/faolex/results/details/en/c/LEX-FAOC171668⟩ (accessed January 9, 2023).
[103] S. Trevisanut, Twenty years of prompt release of vessels: admissibility, jurisdiction, and recent trends, Ocean Dev. Int. Law. 48 (2017) 300–312, https://doi.org/10.1080/00908320.2017.1325694.
[104] D. Agnew, C. Barnes, Economic Aspects and Drivers of IUU Fishing: Building a Framework, Fish Piracy: Combating Illegal, Unreport. Unregulated Fish. (2004) 169–200.
[105] A.A. Stefanus, J.A.E. Vervaele, Fishy business: regulatory and enforcement challenges of transnational organised IUU fishing crimes, Trends Organ Crim. 24 (2021) 581–604, https://doi.org/10.1007/s12117-021-09425-y.
[106] FAO, A Legislative Guide on Combatting Crimes in the Fisheries Sector | The Development Law Service | Food and Agriculture Organization of the United Nations, n.d. ⟨https://www.fao.org/legal-services/news/news-detail/en/c/1475389/⟩ (accessed 21 April 2022).