

Whitehall Report 3-19

Turning the Tide?

Learning from Responses to Large-Scale Illegal, Unreported and Unregulated Fishing in Five Countries

Charlie de Rivaz, Cathy Haenlein, Alexandria Reid
and Veerle Nouwens



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RUSI Whitehall Report 3-19, November 2019



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Cover image: Indonesian personnel conduct a simulation of capturing foreign-flagged vessels, November 2019. Courtesy of PA Images/Teguh Prihatna

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Acronyms and Abbreviations

AIS	automatic identification system
ASEAN	Association of Southeast Asian Nations
AU	African Union
AU-IBAR	African Union Inter-African Bureau for Animal Resources
CCCIF	Command Center for Combating Illegal Fishing (Thailand)
D-FISH	Directorate of Fisheries (Vietnam)
DAFF	Department of Agriculture, Forestry and Fisheries (South Africa)
DCEA	Drug Control and Enforcement Agency (Tanzania)
DCoC	Djibouti Code of Conduct
DCoC+	Djibouti Code of Conduct and the Jeddah Amendment
DSFA	Deep Sea Fishing Authority (Tanzania)
EEZ	exclusive economic zone
FAO	UN Food and Agriculture Organization
FMC	Fisheries Monitoring Centre
GT	gross tonnage
ILO	International Labour Organization
IOC	Indian Ocean Commission
IOTC	Indian Ocean Tuna Commission
IUU	illegal, unreported and unregulated fishing
KKP	Ministry of Maritime Affairs and Fisheries (Indonesia)
MARD	Ministry of Agriculture and Rural Development (Vietnam)
MDA	maritime domain awareness
MFA	Ministry of Foreign Affairs (Thailand)
MCS	monitoring, control and surveillance
nm	nautical miles
NMATT	National Multi-Agency Task Team (Tanzania)
PIPO	Port-In Port-Out Inspections (Thailand)
PSMA	Port State Measures Agreement
RFMO	Regional Fisheries Management Organisation
RPOA-IUU	Regional Plan of Action on IUU Fishing (Association of Southeast Asian Nations)
TAFICO	Tanzania Fishing Corporation
THAI-MECC	Thailand Maritime Enforcement Coordinating Center
SADC	Southern African Development Community
SEA	Southeast Asia
SWIOFC	South West Indian Ocean Fisheries Commission
UAVs	unmanned aerial vehicles
UNODC	UN Office on Drugs and Crime
UNTOC	UN Convention against Transnational Organised Crime
WIO	Western Indian Ocean

VMS vessel monitoring system
ZAFICO Zanzibar Fishing Corporation

Executive Summary

ILLEGAL, UNREPORTED AND unregulated (IUU) fishing poses not only a systemic threat to the environment, but also a sustained threat to national and regional security. Valued at an estimated \$10–23.5 billion per year,¹ much IUU fishing takes place on a systematic and industrial scale for profit, with these large-scale operations increasingly recognised as a form of transnational organised crime.

In recognition of the scale and sophistication of this threat, a growing number of policy recommendations have been made to help shape national and international responses. Yet progress in developing effective and practical measures has in many cases been limited. The result has been a collective failure, at a systemic level, to provide an adequate global response.

This lack of progress has rarely been the subject of detailed cross-regional analysis. Indeed, while many affected jurisdictions have enacted key measures to address IUU fishing, little work has been done to assess the extent to which these measures have effectively mitigated the role that transnational organised crime plays in the IUU fishing industry.

This report seeks to contribute to a more nuanced understanding of this area, considering obstacles to, and opportunities for, more effective action. It does so by examining experiences in five countries: Indonesia; Thailand; Vietnam; Tanzania; and South Africa. In each case, the report examines the approaches taken by those states and the successes and failures of their policies – aiming, in the process, to contribute to a more comprehensive understanding of the obstacles to – and opportunities for – more effective action.

On the basis of a comprehensive literature review, 106 semi-structured interviews and four focus groups across the case study countries, this report outlines the key features of the multidimensional threat posed by organised, large-scale IUU fishing across the focus countries. It points, in particular, to high levels of convergence between this and other crimes, adding further complexity to the nature of the challenge posed by IUU fishing.

In responding to this threat, the report considers the range of challenges encountered in bolstering legislative, regulatory and institutional frameworks, strengthening detection and

1. UN Food and Agriculture Organization (FAO), *The State of World Fisheries and Aquaculture 2016: Contributing to Food Security and Nutrition for All* (Rome: FAO, 2016), p. iii; David J Agnew et al., 'Estimating the Worldwide Extent of Illegal Fishing', *PLOS ONE* (Vol. 4, No. 2, February 2009). A more recent estimate puts the annual value of IUU fishing at \$15.5–36.4 billion. See Channing Mavrellis, 'Transnational Crime and the Developing World', *Global Financial Integrity*, 27 March 2017, <<https://gfintegrity.org/report/transnational-crime-and-the-developing-world/>>, accessed 23 October 2019.

interdiction capabilities, and enhancing investigation and prosecution. These range from an insufficient prioritisation of the upskilling of the human resources needed to operate new technologies sustainably, to uneven application of new legislation and regulations, to challenges ensuring that officers possess the breadth of skills required to identify the broader crimes with which IUU fishing intersects, among many others. In considering experiences in these areas, the report also identifies a number of opportunities to address these challenges, highlighting successes and best practice where these have emerged.

To ensure progress in tackling the multidimensional threat posed, it is crucial that this real-world experience is regularly accounted for, with lessons learned translated into updated policy and practice. Based on the analysis, the following recommendations are offered to support this process. These do not seek to reiterate global recommendations made elsewhere, which affected countries worldwide have already sought to apply. Rather, they offer specific guidance on *tailoring* existing approaches, based on the lessons derived from the study of these five countries.

Recommendation 1: Strengthening legislation and sanctions. Where efforts are made to strengthen legislation, proactive measures should be taken to ensure that this can be easily implemented in practice. Prior to passing legislation, attention should be paid to ensure that new laws do not contradict or stand apart from other legal frameworks, are not passed without repealing earlier legislation, and are accompanied by appropriate implementation guidance in all relevant local languages. This can be achieved by instituting systematic, whole-of-government consultation mechanisms, involving civil society and the private sector as appropriate.

Recommendation 2: Reforming licensing and other regulatory regimes. Where efforts are made to reform licensing and other regulatory regimes, these should be considered holistically, with systematic, standardised and active consultative processes instituted in all cases to limit unintended consequences, anticipate drivers of non-compliance and provide realistic timeframes for compliance. Where relevant, accountability gaps within decentralised or devolved political systems should be prioritised in terms of further reforms.

Recommendation 3: Designing multi-agency structures. When designing multi-agency structures to respond to large-scale IUU fishing, those responsible should ensure, at design phase, that these are situated in the appropriate part of government to ensure authority over all constituent parts, do not duplicate existing initiatives, and are granted means to reliably access the assets and resources they need.

Recommendation 4: Bolstering cross-border cooperation. When seeking to bolster cross-border cooperation, immediate priority should be placed on encouraging ratification of all international instruments related to large-scale IUU fishing and associated criminal activity. At a regional level, where obstacles to coordination persist, alternative approaches – including support for bilateral or sub-regional groupings – should be pursued as stepping stones to future regional action.

Recommendation 5: Strengthening surveillance systems. When instituting new and strengthening existing surveillance systems, sustainability must be a central consideration, requiring realistic long-term planning around ongoing running costs, maintenance and the development of human capacity to sustainably use and tangibly benefit from technological solutions.

Recommendation 6: Bolstering sea and air patrols. In seeking to bolster the effectiveness of sea and air patrols, realistic appraisals must be made around sustainability and cost, and innovative approaches adopted to ensure effective intelligence-led targeting. A potentially replicable model is offered by Thailand's data-driven, risk-based approach to targeting. Cross-border initiatives to ensure that targeting is informed by cross-border data analysis and sharing are also essential.

Recommendation 7: Enhancing the effectiveness of port inspections. When looking to enhance port inspections, interventions should ensure that those mandated to conduct inspections of fishing vessels are trained to go 'beyond fish', with the ability to spot labour and other associated criminal violations. Dedicated training institutions should be supported to diversify skills in this regard, with the FishFORCE academy offering a useful model. In parallel, paper-based inspection systems must be replaced by electronic systems as a matter of urgency, with a potential model offered by the 'single-window' system used in Thailand.

Recommendation 8: Strengthening investigation and prosecution. Where working to strengthen investigation and prosecution, enhanced training in evidence-collection techniques for investigators should be prioritised through dedicated domestic institutions. Prosecutorial capacity should also be built, with a focus on closer and earlier consultation with investigators. Options to achieve this include: the development of IUU fishing-specific Rapid Reference Guides; the provision of financial investigation training; and, where appropriate, the establishment of specialised courts, whereby investigators are able to consult prosecutors with expertise on IUU fishing for specialist advice.

Introduction

THE EARTH'S SEAS and oceans are under unprecedented ecological pressure. Hosting 80% of life on the planet, they provide a significant source of protein for 3.2 billion people and support the livelihoods of a further 660–880 million people worldwide.¹ Yet fish stocks have collapsed in recent years, with a third of the world's stocks fished beyond biologically sustainable limits.² This collapse comes in the face of climate change, rising demand for fish products, and the use of increasingly unsustainable fishing methods, including large-scale illegal, unreported and unregulated (IUU) fishing.

Such IUU activity is estimated to account for more than 15% of the world's total capture fisheries production, worth an estimated \$10–23.5 billion per year.³ It poses not only a systemic threat to the environment, but also a sustained threat to national and regional security. Notably, large-scale IUU fishing is increasingly recognised as a form of transnational organised crime.⁴ These operations are run on a cross-border, systematic and industrial scale by dedicated, often sizeable networks of criminal actors. Their activities frequently pose further threats, with associated corruption, fraud and modern slavery amplifying the damage caused.

These organised criminal dynamics have increasingly attracted global attention. As far back as 2009, UN General Assembly resolutions have recognised the links between illegal fishing and transnational organised crime.⁵ In 2013, Interpol began using the term 'fisheries crime' to refer

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1. UN Food and Agriculture Organization (FAO), '7 Reasons Why We Need to Act Now to #SaveOurOcean', 29 March 2017, <<http://www.fao.org/zhc/detail-events/en/c/846698/>>, accessed 3 September 2019; FAO, *The State of World Fisheries and Aquaculture 2018: Meeting the Sustainable Development Goals* (Rome: FAO, 2018), p. 2.
 2. FAO, *The State of World Fisheries and Aquaculture 2018*, p. vii.
 3. FAO, *The State of World Fisheries and Aquaculture 2016: Contributing to Food Security and Nutrition for All* (Rome: FAO, 2016), p. iii; David J Agnew et al., 'Estimating the Worldwide Extent of Illegal Fishing', *PLOS ONE* (Vol. 4, No. 2, February 2009). A more recent estimate puts the annual value of IUU fishing at \$15.5–36.4 billion. See Channing Mavrellis, 'Transnational Crime and the Developing World', *Global Financial Integrity*, 27 March 2017, <<https://gfintegrity.org/report/transnational-crime-and-the-developing-world/>>, accessed 23 October 2019.
 4. Teale N Phelps Bondaroff, Wietse van der Werf and Tuesday Reitano, 'The Illegal Fishing and Organized Crime Nexus', *Global Initiative Against Transnational Organized Crime and The Black Fish*, April 2015, <<https://globalinitiative.net/wp-content/uploads/2015/04/the-illegal-fishing-and-organised-crime-nexus-1.pdf>>, accessed 23 October 2019; Anastasia Telesetsky, 'Laundering Fish in the Global Undercurrents: Illegal, Unreported, and Unregulated Fishing and Transnational Organized Crime', *Ecology Law Quarterly* (Vol. 41, No. 4, 2015), pp. 939–94.
 5. UN General Assembly, 'Resolution Adopted by the General Assembly on 4 December 2009: Sustainable Fisheries, Including Through the 1995 Agreement for the Implementation of the

to all crimes in the fishing sector, including tax evasion, corruption and human trafficking.⁶ This concept and approach to illegalities spurred the establishment of an annual international symposium ‘to facilitate an understanding of fisheries crime as transnational organized crime’.⁷

Since this time, a growing number of recommendations have been made to guide efforts to address the threat at national, regional and international levels. Indeed, the UN Office on Drugs and Crime (UNODC), RUSI and the Stimson Center, a Washington-based think tank, among others, have stressed the need to complement a traditional fisheries management approach with a criminal law-enforcement approach, and outlined specific measures to achieve this.⁸ However, across many affected areas, progress in implementing recommendations has been limited. Instead, perpetrators continue to operate largely unhindered in what remains a low-risk, high-reward environment.

This lack of progress has rarely been the subject of detailed cross-regional analysis. Indeed, while many affected jurisdictions have enacted measures to address IUU fishing, little work has been done to assess the extent to which these have engaged with the links with transnational organised crime, or to examine the reasons for their collective failure to provide a more effective global response. This report targets this gap, assessing experience to date across five countries in two regions known to have been affected by IUU fishing: Indonesia, Thailand and Vietnam in Southeast Asia (SEA); and Tanzania and South Africa in the Western Indian Ocean (WIO).⁹ In analysing the approaches taken in each country, the report seeks to contribute to a more nuanced understanding of the obstacles to, and opportunities for, more effective action.

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’, A/RES/64/72, 19 March 2010, para. 61.

6. Eve De Coning, ‘Fisheries Crime’, in Lorraine Elliott and William H Schaedla (eds), *Handbook of Transnational Environmental Crime* (Cheltenham: Edward Elgar Publishing, 2016), pp. 146–67.
7. United Nations Office on Drugs and Crime (UNODC), ‘Outcome of the 2nd International Symposium on Fisheries Crime, 10–11 October 2016, Yogyakarta, Indonesia’, E/CN.15/2017/CRP.3, 17 May 2017, <https://www.unodc.org/documents/commissions/CCPCJ/CCPCJ_Sessions/CCPCJ_26/E_CN15_2017_CRP3_e_V1703449.pdf>, accessed 23 October 2019.
8. UNODC, ‘Fisheries Crime: Bringing to Light the Perfect Storm of Illegal Activities in the Fishing Sector’, 25 May 2016, <https://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 23 October 2019; Cathy Haenlein, ‘Below the Surface: How Illegal, Unreported and Unregulated Fishing Threatens our Security’, *RUSI Occasional Papers* (July 2017); Amanda Shaver and Sally Yozell, ‘Casting a Wider Net: The Security Implications of Illegal, Unreported, and Unregulated Fishing’, Stimson Center, 2018, <<https://www.stimson.org/content/casting-wider-net-security-implications-illegal-unreported-and-unregulated-fishing>>, accessed 23 October 2019.
9. In this report, Southeast Asia broadly refers to areas in and around the South China, Sulu, Celebes, Molukka, Banda, Flores, and Java seas. The Western Indian Ocean in this report covers Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, South Africa, and Tanzania, as well as French overseas départements such as Réunion.

The report has a number of core objectives:

- To explore the dynamics of large-scale IUU fishing across the focus countries, and the overlaps with organised crime.
- To consider the different approaches taken to address large-scale IUU fishing and associated crimes across the selected countries.
- To explore obstacles encountered in the course of these efforts, and the extent to which they have hindered an effective overall response.
- To identify opportunities and successful initiatives and best practice where these have emerged, developing recommendations on this basis.

In all selected locations, perpetrators inevitably include small-scale fishers acting opportunistically or through ignorance of regulations. However, there is also evidence of significant large-scale IUU activity taking place hand-in-hand with crimes such as corruption and human trafficking.¹⁰ This report focuses on the latter: ‘large-scale IUU fishing’ is used to refer to illegal, unreported and unregulated marine capture fishing activity by commercial vessels large enough to operate in exclusive economic zones (EEZs – the area beyond and adjacent to the territorial sea, up to 200 nautical miles (nm) from the shore’s baseline) and the high seas.

The five focus countries were chosen from across two regions known to have been affected by IUU fishing: Southeast Asia and the Western Indian Ocean. The countries were chosen due to their importance in regional supply chains and the scale and nature of the IUU threat they face, as well as the diversity in the responses they have taken to this threat. In SEA, Indonesia, Thailand and Vietnam were selected as they are the region’s three largest fish exporters; Indonesia and Vietnam are also the region’s largest capture fisheries producers, catching 6.7 million and 3.3 million tonnes respectively in 2017.¹¹ For all three countries the vast majority of the catch comes from marine fisheries.¹² Thailand, Vietnam and Indonesia have all been affected by IUU fishing. The 2019 IUU Fishing Index, produced by the Global Initiative Against Transnational Organized Crime and Poseidon Aquatic Resource Management, based on a suite of 40 indicators relevant to IUU fishing, ranks all three in the top 10 countries worldwide by prevalence of IUU fishing (Vietnam third, Thailand fourth and Indonesia ninth).¹³ Moreover, at the time of selection (early 2018), both Thailand and Vietnam had an EU ‘yellow card’ for failing to tackle IUU fishing,

10. See, for example, Greenpeace, ‘Misery at Sea: Human Suffering in Taiwan’s Distant Water Fishing Fleets’, 24 May 2018, <<https://www.greenpeace.org/new-zealand/publication/misery-at-sea/>>, accessed 23 October 2019.

11. FAO, *Fishery and Aquaculture Statistics: Capture Production – 2017* (Rome: FAO, 2019), <http://www.fao.org/fishery/static/Yearbook/YB2017_USBcard/root/capture/yearbook_capture.pdf>, accessed 1 November 2019.

12. *Ibid.*

13. Graeme Macfadyen et al., ‘The IUU Fishing Index’, Poseidon Aquatic Resource Management Limited and the Global Initiative Against Transnational Organized Crime, January 2019, <<https://globalinitiative.net/iuu-fishing-index/>>, accessed 23 October 2019.

which is issued to countries deemed to not be taking effective action, as a warning prior to the issue of a 'red card', under which their fisheries products can no longer be imported into the EU.¹⁴ Thailand's yellow card was lifted in January 2019. The countries also offer interesting case studies in terms of the diversity of the responses they have taken to IUU fishing and associated crimes. As will be seen in Chapters III and IV, while Indonesia has focused on targeting foreign-flagged IUU vessels operating in its waters, Thailand's approach has centred on controlling its own fleet. Vietnam, in contrast, is only at the early stages of its response to tackling IUU fishing.

In the WIO, South Africa and Tanzania have the largest capture fisheries production in the region, catching 525,000 tonnes and 387,000 tonnes in 2017, respectively.¹⁵ Only 15% of Tanzania's catch comes from its marine fisheries, in comparison to almost all (99.8%) of South Africa's.¹⁶ The two countries are also significantly affected by IUU fishing. Across the WIO region, the IUU Fishing Index ranks them below only the Comoros and Somalia in terms of vulnerability to IUU fishing and ability to combat it.¹⁷ The latter were discounted as focus countries because their capture fisheries sectors are comparatively small and, in Somalia, because of limitations on the feasibility of conducting high-quality field research.¹⁸ Both Tanzania and South Africa also offer interesting contrasts when it comes to responses to IUU fishing and associated crimes, with South Africa able to call on far more resources in terms of monitoring, control and surveillance regimes; Tanzania, with limited resources, has had to adopt more innovative approaches to tackling IUU fishing, for example through public-private partnerships and with the creation of the National Multi-Agency Task Team (NMATT).

'IUU fishing' refers to a wide range of fishing activity, understood by the UN Food and Agriculture Organization (FAO) as comprising three distinct areas. 'Illegal fishing', first, covers fishing activity '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'.¹⁹ It also covers activity by vessels flagged to state parties in areas covered by a relevant regional fisheries management organisation (RFMO) – formed by countries with fishing interests in an area – in contravention of that RFMO's conservation or management measures, or of applicable international law.

Second, 'unreported fishing' covers activities that 'have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and

14. European Commission, 'Overview of Existing Procedures as Regards Third Countries', <https://ec.europa.eu/fisheries/sites/fisheries/files/illegal-fishing-overview-of-existing-procedures-third-countries_en.pdf>, accessed 3 March 2018.

15. FAO, *Fishery and Aquaculture Statistics: Capture Production – 2017*.

16. *Ibid.*

17. Macfadyen et al., 'The IUU Fishing Index', p. 90.

18. FAO, *Fishery and Aquaculture Statistics: Capture Production – 2017*.

19. FAO, *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing* (Rome: FAO, 2001), p. 2.

regulations'.²⁰ It also comprises activity that has not been reported or has been misreported in the area covered by an RFMO, in contravention of that organisation's rules.

Third, 'unregulated fishing' covers activities in areas covered by RFMOs that contravene their conservation or management measures and which are carried out by 'vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity'.²¹ It also refers to fishing activity in areas or for stocks not covered by existing conservation or management measures which is 'conducted in a manner inconsistent with state responsibilities for the conservation of living marine resources under international law'.²²

Methodology

Research for this report was carried out in four phases. The first comprised a review of existing academic literature, policy documents, law enforcement documents, and NGO and private sector reports on IUU fishing and associated crimes. On this basis, the five focus countries – Indonesia, Thailand, Vietnam, Tanzania and South Africa – were chosen, in line with their importance in regional supply chains, the extent of the IUU threat they face and the diversity in the responses adopted to tackle this threat.

In the second phase, fieldwork was conducted in all focus countries – in Thailand (Bangkok), Vietnam (Hanoi) and Indonesia (Jakarta) in July 2018, and in Tanzania (Dar es Salaam) and South Africa (Pretoria and Cape Town) in April 2019. In total, 106 semi-structured interviews were held with serving public sector officials, law enforcement officers, private sector representatives, representatives of NGOs and international organisations.²³

Interviewees were selected based on their knowledge of the topic, with a snowball sampling method used to identify additional respondents. Stakeholder representation was also kept as consistent as possible, with comparative institutions (for example, fisheries ministries) interviewed in all cases. Following interviews, focus groups were held in Hanoi, Jakarta, Dar es Salaam and Cape Town to allow the researchers to test initial findings, and to generate informed discussion on policy recommendations. The focus groups comprised as many of those who had already been interviewed as possible, in addition to other relevant stakeholders who were not able to participate in interviews.

20. *Ibid.*

21. *Ibid.*

22. FAO, 'What is IUU Fishing?', <<http://www.fao.org/iuu-fishing/background/what-is-iuu-fishing/en/>>, accessed 23 October 2019.

23. Interviewees are coded and referenced in this report according to the type of organisation to which they belong: A (academia); N (non-governmental organisation); G (foreign government); O (international organisation); SAG (South Africa government); TZG (Tanzania government); TG (Thailand government); VG (Vietnam government); IG (Indonesia government); C (independent consultant); P (private sector).

In the third stage, a validation workshop with experts on IUU fishing was held in London in July 2019 to review a first draft of the report. The methodology was also reviewed twice by the research review and support team at The Pew Charitable Trusts, a US-based NGO.

This research design has several limitations. The first relates to the nine-month time lag between the fieldwork carried out in SEA and that in WIO. To address this, findings from SEA were supplemented with an additional review of documents published in the time elapsed and, where required, authors re-engaged with participants to confirm the continued accuracy of interview data. This process was crucial as in some cases the situation had progressed significantly. For example, although Thailand was under an EU yellow card during fieldwork, this was lifted in January 2019, prior to publishing this report.

Second, although all interviewees had extensive experience, a degree of subjectivity is inevitable. This report proceeds on the basis that an interviewee's understanding of a given issue may be shaped by the specific cases they have been involved in: owing to the hidden nature of much IUU fishing, not all activities will necessarily have come to their attention. Therefore, while some respondents may perceive certain phenomena to be more significant than others in certain contexts, this may reflect limited coverage of an issue. Wherever possible, these references are corroborated by a published source.

Finally, the research is not designed to provide a detailed comparative analysis across the focus countries, but it nonetheless grapples with the challenges of synthesising lessons across case studies. A range of measures were taken to address this challenge, including the three-phase review process.

Structure

The remainder of this report is divided into four chapters. Chapter I provides brief summaries of the focus countries and their fisheries production. Chapter II presents an overview of the relationship between IUU fishing and organised crime in the focus countries, including the extent of crime convergence. Chapter III analyses the governance frameworks set up to address this relationship in the five focus countries, identifying obstacles and opportunities for enhancing them. Chapter IV examines monitoring and enforcement regimes, covering obstacles to and opportunities for more effective action. The conclusion draws together the findings.

I. Country Profiles

Southeast Asia

Indonesia

Indonesia, with 268 million people, has the second-largest capture fisheries production in the world, with production of 6.7 million tonnes, almost twice that of Vietnam and five times that of Thailand.²⁴ Indonesia's EEZ is 2.7 million km², larger than the Mediterranean Sea, and it has a coastline of 55,000 km across its 17,500 islands.²⁵ According to the FAO, in 2015 there were approximately 2,700 industrial fishing vessels – those larger than 30 GT (gross tonnage) – in operation in Indonesia's waters, nine of which were over 200 GT.²⁶ The majority (65%) of the vessels over 30 GT are licensed to individuals.²⁷ Indonesia's waters are divided into 11 Fisheries Management Areas (FMAs). In 2015, by far the most intensely fished FMA was the Java Sea, which saw 1.4 million tons of capture fisheries production.²⁸ Marine capture production is dominated by tuna and tuna-like species.²⁹

Thailand

Thailand, with 69 million people, is the 15th-largest capture fisheries producer, with 1.5 million tonnes, and the fourth-largest exporter of fisheries products globally, with exports worth \$5.96 billion in 2017.³⁰ It has a coastline of 2,600 km and its EEZ is over 316,000 km², covering both the Gulf of Thailand and the Andaman Sea.³¹ Marine capture fisheries accounts for approximately 36% of the total value of Thailand's fishery production.³² According to the Thai government, in

24. FAO, *Fishery and Aquaculture Statistics: Capture Production – 2017*.

25. Ifan Ariansyach, 'Fisheries Country Profile: Indonesia', Southeast Asian Fisheries Development Center (SEAFDEC), 2018, <<http://www.seafdec.org/fisheries-country-profile-indonesia/>>, accessed 23 October 2019.

26. *Ibid.*

27. *Ibid.*

28. Ministry of Marine Affairs and Fisheries (KKP) and Japan International Cooperation Agency (JICA), 'Indonesia: Marine and Fisheries Book 2017', 2017, p. 26, <http://kkp.go.id/wp-content/uploads/2017/12/buku_IMFB.pdf>, accessed 23 October 2019.

29. Ariansyach, 'Fisheries Country Profile: Indonesia'.

30. FAO, *The State of World Fisheries and Aquaculture 2018*, p. 44.

31. Thana Yenpoeng, 'Fisheries Country Profile: Thailand', SEAFDEC, 2018, <<http://www.seafdec.org/category/fisheries-country-profiles/>>, accessed 23 October 2019; FAO, 'Fisheries Statistics: Thailand', updated 2009, <<http://www.fao.org/fishery/facp/THA/en#CountrySector-GenGeoEconReport>>, accessed 27 August 2018.

32. Yenpoeng, 'Fisheries Country Profile: Thailand'.

February 2018 the Thai commercial fishing fleet consisted of 11,000 vessels larger than 10 GT, of which 6,100 were larger than 30 GT.³³ Later that year, the government revised its estimate of the size of its commercial fleet to 10,743.³⁴ Thailand has historically had a large distant-water fleet, with 40% of the total marine catch coming from outside Thailand's waters in 2007;³⁵ in 2015, there were reportedly 2,000 vessels in its distant-water fleet.³⁶ In the same year, the Indian Ocean Tuna Commission (IOTC) reported that 82% of Thailand's 172,000 fishers were migrants from other countries.³⁷

Vietnam

Vietnam, with a population of 96 million people, is the seventh-largest capture fisheries producer in the world and the second-largest in the SEA region, after Indonesia. Its EEZ is over 754,000 km² and its coastline 3,260 km.³⁸ Vietnam's offshore fleet – defined as any vessel with an engine of 90 CV or more – comprises approximately 25,500 vessels.³⁹ These vessels – some of which operate beyond the EEZ – are cheap to build and are known as 'blue boats' because of the colour of their hulls. Despite a 2014 decree (No. 67) from the government making it easier to build steel-hulled vessels, the majority of Vietnamese fishing vessels are wooden.⁴⁰

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33. Thailand Ministry of Foreign Affairs (MFA), 'Thailand's Effective Fleet Management and the Deployment of Police Officers at the Fishing Monitoring Center', press release, 8 February 2018.
 34. MFA, 'Deputy Prime Minister led the Diplomatic Corps to Observe the Demolition of Unregistered Fishing Vessels and a Demonstration of Thailand's Traceability System', press release, 14 September 2018.
 35. FAO, 'Fisheries Statistics: Thailand'.
 36. Environmental Justice Foundation (EJF), 'EU Warning to Thailand to Tackle Pirate Fishing or Risk Trade Sanctions', 21 April 2015, <<https://ejfoundation.org/news-media/2015/eu-warning-to-thailand-to-tackle-pirate-fishing-or-risk-trade-sanctions-1>>, accessed 3 September 2019.
 37. Indian Ocean Tuna Commission (IOTC), 'Thailand National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (Thailand NPOA-IUU) 2015 – 2019', 2015, p. 5.
 38. FAO, 'The Socialist Republic of Viet Nam', January 2019, <<http://www.fao.org/fishery/facp/VNM/en>>, accessed 11 November 2019. Note, however, that the boundaries of Vietnam's EEZ is disputed by other countries, and so estimates of the size of its EEZ will vary.
 39. Vietnam Association of Seafood Exporters and Producers (VASEP), 'Whitebook on Combating IUU Fishing in Vietnam', 2018, p. 12, <http://seafood.vasep.com.vn/whybuy/747_12422/white-bookon-combating-iuu-fishing-in-vietnam.htm>, accessed 23 October 2019.
 40. Nguyen Tuan Uyen, 'Fisheries Country Profile: Viet Nam', SEAFDEC, 2018, <<http://www.seafdec.org/fisheries-country-profile-viet-nam/>>, accessed 12 August 2019.

Western Indian Ocean

Tanzania

Tanzania, with 56 million people and a coastline stretching 1,424 km, has the 43rd-largest capture fisheries production in the world and the second-largest in the WIO region after South Africa. Approximately 15% of this catch comes from the country's marine fisheries.⁴¹ Tanzania's EEZ covers 223,000 km² and is predominantly fished for large pelagic species such as tuna, shark and swordfish.⁴² As these species are migratory, the vessels fishing them – mostly foreign-flagged – will only spend part of the year in the EEZ.⁴³ In 2018 there were 24 foreign commercial fishing vessels licensed to fish in Tanzania's EEZ.⁴⁴ Tanzania itself does not have a commercial fishing fleet, with only one Tanzanian-flagged vessel currently authorised to fish in the IOTC's area.⁴⁵

South Africa

South Africa, with a population of 58 million, has the 33rd-largest capture fisheries production in the world and the largest in the region, catching 524,000 tonnes in 2017, almost all from its marine fisheries.⁴⁶ Its EEZ is over 1 million km² and it has a coastline of 3,600 km stretching from the Indian Ocean to the Atlantic.⁴⁷ Offshore fishing is dominated by the hake fishery, which contributes approximately 40% of the total value of all South African catch.⁴⁸ Foreign fishing vessels do not have the right to fish in South Africa's EEZ,⁴⁹ although there are some joint ventures in operation, particularly with Japanese vessels fishing for tuna.⁵⁰ However, distant-water fleets from East Asia that are bound for the Atlantic do use South Africa's ports, particularly Cape Town, to re-supply.

41. FAO, *Fishery and Aquaculture Statistics: Capture Production – 2017*.

42. Pelagic fish live neither near the bottom nor near the shore of lakes, coasts and open oceans.

43. Tanzania Ministry of Agriculture, Livestock and Fisheries, 'The Tanzanian Fisheries Sector: Challenges and Opportunities', September 2016.

44. *Sea Shepherd*, 'Tanzanian Authorities Issue Over €6 Million in Fines to Foreign Fishing Vessels Evading Inspections', 28 February 2018.

45. FAO, 'Record of Currently Authorized Vessels', <<https://www.iotc.org/vessels/current>>, accessed 12 August 2019.

46. FAO, *Fishery and Aquaculture Statistics: Capture Production – 2017*.

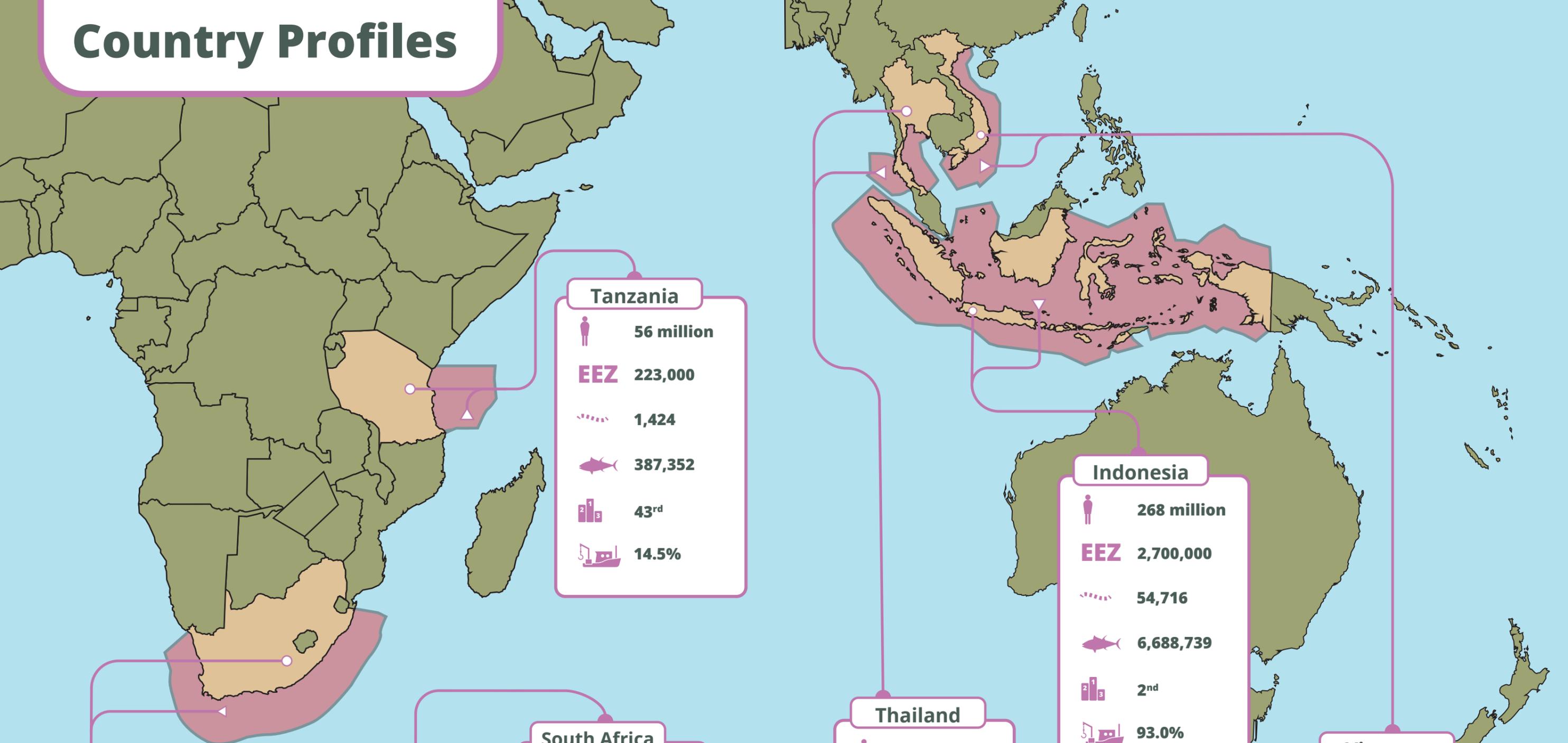
47. SADC-EU EPA Outreach South Africa, 'South African Fisheries and the SADC-EU Economic Partnership Agreement', July 2017, p. 5, <<https://sadc-epa-outreach.com/images/files/sadc-eu-epa-fisheries-july-2017.pdf>>, accessed 23 October 2019.

48. *Ibid.*

49. WWF, 'Fisheries: Facts and Trends, South Africa', 2011, p. 13.

50. Authors' interview with P11, private sector representative, Cape Town, April 2019.

Country Profiles



Tanzania

- Population: 56 million
- EEZ: 223,000
- Coastline: 1,424
- Size of capture fisheries production in 2017 (tonnes): 387,352
- World ranking for capture production in 2017: 43rd
- % of capture production from marine fisheries: 14.5%

Indonesia

- Population: 268 million
- EEZ: 2,700,000
- Coastline: 54,716
- Size of capture fisheries production in 2017 (tonnes): 6,688,739
- World ranking for capture production in 2017: 2nd
- % of capture production from marine fisheries: 93.0%

Thailand

- Population: 69 million
- EEZ: 316,000
- Coastline: 2,624
- Size of capture fisheries production in 2017 (tonnes): 1,479,369
- World ranking for capture production in 2017: 15th
- % of capture production from marine fisheries: 87.1%

Vietnam

- Population: 95.5 million
- EEZ: 753,883
- Coastline: 3,260
- Size of capture fisheries production in 2017 (tonnes): 3,277,574
- World ranking for capture production in 2017: 7th
- % of capture production from marine fisheries: 95.2%

South Africa

- Population: 58 million
- EEZ: 1,071,883
- Coastline: 3,623
- Size of capture fisheries production in 2017 (tonnes): 523,568
- World ranking for capture production in 2017: 33rd
- % of capture production from marine fisheries: 99.8%

KEY

- Population
- EEZ Exclusive Economic Zone (km²)
- Coastline (km)
- Size of capture fisheries production in 2017 (tonnes)
- World ranking for capture production in 2017
- % of capture production from marine fisheries
- Country
- EEZ area

II. IUU Fishing and Organised Crime

IUU Fishing: Scale, Drivers and Types

Any assessment of responses to large-scale IUU fishing depends on a clear understanding of the threat landscape. Spread across two regional hotspots, the extent of IUU fishing in all focus countries is reportedly vast. In Thailand, IUU fishing is estimated to cost up to \$230 million per year.⁵¹ In Indonesia, Prime Minister Joko Widodo has estimated the cost at over \$20 billion per year.⁵² Although this figure is debatable (IUU fishing *globally* is valued at \$10-23.5 billion)⁵³, even more conservative estimates, which put Indonesia's losses at \$3 billion or \$4 billion,⁵⁴ point to IUU fishing on a grand scale. No published estimate is available of the cost of IUU fishing to Vietnam. Meanwhile, in South Africa and Tanzania, losses have been estimated at \$97 million per year and \$40 million per year, respectively, based on data from the Sea Around Us project.⁵⁵

While a chunk of these losses may come from small-scale IUU fishing, a large proportion is a result of IUU fishing by large-scale commercial vessels.⁵⁶ In many cases, there is evidence that many of those involved are capable of running highly organised and networked criminal operations, to grave ecological, social and economic effect. The main driver of such organised activity across the focus countries is the pursuit of profit, at all human, social and ecological costs. This is exacerbated by overfishing: declining fish stocks means that fishers need to put in more effort to maintain their catches. This leads to smaller profit margins and therefore a greater incentive to cut costs or gain an advantage through other means, such as by using illegal gear or under-reporting catches.

The same logic means that IUU fishing is also driven by overcapacity in the commercial fishing fleet. This is a problem in Southeast Asia, where subsidies have encouraged increased fishing activity, regardless of whether the total allowable catch can support this. Asia as a whole remains

51. IOTC, 'Thailand National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing', p. 6.

52. Prashanth Parameswaran, 'Indonesia Wants Global War on Illegal Fishing', *The Diplomat*, 9 May 2017.

53. Agnew et al., 'Estimating the Worldwide Extent of Illegal Fishing'.

54. Heriyanto, 'Illegal Fishing Costs Indonesia 3 Billion Dollars A Year', *Reporting Asean*, 2012; Reniel B Cabral et al., 'Rapid and Lasting Gains From Solving Illegal Fishing', *Nature Ecology and Evolution* (Vol. 2, No. 4, April 2018), p. 651.

55. Sea Around Us, <<http://www.seaaroundus.org/>>, accessed 10 September 2019.

56. Mavrellis, 'Transnational Crime and the Developing World', p. 62.

the greatest subsidising region, contributing 43% of worldwide subsidies, worth \$35 billion in 2016.⁵⁷ This has allowed fleets to cover the fuel and operating costs needed to fish further afield – sometimes exporting IUU practices from one ocean to another.⁵⁸ An estimated 1,000 Vietnamese blue boats – which cost as little as \$25,000 to build – are suspected of engaging in IUU fishing in the Pacific Ocean and China Sea.⁵⁹ The race to fish and incentives to cut costs also drive crimes such as modern slavery, where labour violations allow criminal business models to profit further.⁶⁰

The modus operandi of those engaged in large-scale IUU fishing are similar across the focus countries. Common tactics include: the use of forged or fraudulently obtained licences; use of illegal fishing gear; use of flags of convenience; flag-hopping, where vessels repeatedly register with new flag states to avoid detection; and serial vessel name changes. To avoid detection, a common tactic is to enter an EEZ and turn off the vessel monitoring system (VMS) and automatic identification system (AIS), thereby ‘going dark’. Another is to use transshipment – when one vessel links to another to offload a portion of its catch – to disguise the origin of fish that may have been caught illegally or not reported.⁶¹ In parallel, products may be mislabelled to evade interception or appropriate tax – resulting in ‘food fraud’, where consumers are sold mislabelled products.

IUU Fishing as Transnational Organised Crime

That illegal operations on a large scale meet many of the criteria of transnational organised crime is increasingly recognised across the focus countries. Most prominently, in 2017, Susi Pudjiastuti, Indonesia’s Minister of Marine Affairs and Fisheries, called on the UN to declare IUU fishing a transnational organised crime, pointing to overlaps with crimes such as modern slavery.⁶² Cross-regional consensus has also emerged: signatories to the Copenhagen Declaration, including Indonesia, have called on ‘the world community to recognize the existence of transnational organized crime in the global fishing industry’.⁶³ In 2016, meanwhile, most African Union (AU)

57. U Rashid Sumaila et al., ‘Global Fisheries Subsidies: An Updated Estimate’, *Marine Policy* (Vol. 69, July 2016), pp. 189–93.

58. Oby Ezekwesili, ‘Why We Need to End Fisheries Subsidies’, World Economic Forum, 2 October 2015.

59. Priit Ojamaa, ‘Research for PECH Committee – Fisheries in Vietnam’, IN-Depth Analysis, European Union, October 2018.

60. Global Slavery Index, ‘Importing Risk: Fishing’, <<https://www.globallslaveryindex.org/2018/findings/importing-risk/fishing/>>, accessed 23 October 2019.

61. Stop Illegal Fishing and PescaDOLUS, ‘Record of The First International Symposium on FishCRIME’, 2015, <<https://bluejustice.org/fishcrime/wp-content/uploads/2016/09/FishCRIME2015.pdf>>, accessed 23 October 2019.

62. *Undercurrent News*, ‘Indonesia Lobbies UN to Make IUU Fishing a Transnational Organized Crime’, 8 May 2017.

63. Copenhagen and Ålesund Declarations, ‘Copenhagen Declaration’, <<https://bluejustice.org/copenhagen-declaration/>>, accessed 23 October 2019.

members signed the Lomé Charter on Maritime Security, Safety and Development, committing them, among other things, to suppress transnational crime and IUU fishing.⁶⁴ Large-scale, organised IUU fishing has also grown as a priority under the 2017 Jeddah Amendment to the Djibouti Code of Conduct (DCoC+), which widened the scope of the Code from repressing piracy to confronting IUU fishing as a major threat.⁶⁵

This recognition comes despite the fact that IUU fishing does not currently qualify under the UN Convention Against Transnational Organized Crime (UNTOC). The Convention defines an 'organized criminal group' as 'a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences ... in order to obtain, directly or indirectly, a financial or other material benefit'.⁶⁶ Multiple reports have illustrated the ways in which large-scale IUU operators meet key aspects of this definition, whilst engaged in activities that are clearly transnational in scale.⁶⁷ Nonetheless, IUU fishing is currently excluded from UNTOC, owing to the Convention's requirement that a 'serious crime' afford a minimum custodial sentence of four years – a condition not met by IUU fishing in many jurisdictions.

This exclusion at a global level fails to reflect abundant evidence of the organised criminal nature of large-scale IUU fishing in practice. As a 2015 Global Initiative Against Transnational Organized Crime and The Black Fish report note, many IUU cases involve 'cooperation between hundreds of people, across multiple jurisdictions, and massive long-term investment in ... infrastructure'.⁶⁸ This links, in part, to the globalised nature of supply chains: today, many fish products are traded across continents, rather than consumed where caught. As such, many of the demand and supply factors driving IUU fishing are themselves global in nature.⁶⁹

In response, in many cases, the criminal operators involved run sophisticated operations stretching huge distances, as demonstrated by the cases of the *Viking* and the *STS-50*.

64. African Union (AU), 'African Charter on Maritime Security and Safety and Development in Africa (Lomé Charter)', adopted 15 October 2016, <<https://au.int/en/treaties/african-charter-maritime-security-and-safety-and-development-africa-lome-charter>>, accessed 23 October 2019. So far, only Togo has ratified the agreement.

65. International Maritime Organization, 'Djibouti Code of Conduct', <<http://www.imo.org/en/OurWork/Security/PIU/Pages/DCoC.aspx>>, accessed 23 October 2019.

66. UNODC, 'United Nations Convention Against Transnational Organized Crime and the Protocols Thereto', 2004, Article 2, p. 5.

67. Phelps Bondaroff, van der Werf and Reitano, 'The Illegal Fishing and Organized Crime Nexus'; Telesetsky, 'Laundering Fish in the Global Undercurrents'.

68. Phelps Bondaroff, van der Werf and Reitano, 'The Illegal Fishing and Organized Crime Nexus', p. 9.

69. Nicola Okes et al., *Empty Shells: An Assessment of Abalone Poaching and Trade from Southern Africa* (Cambridge: TRAFFIC International, 2018), p. 12.

The *Viking* was a 1,300-GT fishing vessel mainly operating in the Antarctic Ocean. It was wanted for poaching toothfish and was finally intercepted in the Indonesian EEZ in February 2016.⁷⁰ Owned by companies in Spain and Panama, the *Viking* was operated by an agent domiciled in various SEA countries, exporting through an investment company in South Africa. For years, this vessel evaded detection by regularly changing names; providing false documents to inspectors; and flying the flag of at least eight different states, including that of Nigeria when it was caught.⁷¹

The *STS-50* was another toothfish-poacher fishing vessel that was intercepted by the Indonesian navy after evading custody first in China, then in Mozambique.⁷² The vessel owner was a Russian with known organised crime links, working with a South Korean partner to recruit an Indonesian, Russian and Ukrainian crew.⁷³ Based on reconstructed AIS data, it is estimated that during its 10 years in operation, the *STS-50* may have extracted up to \$50 million in fish products from the Antarctic Ocean.⁷⁴

Organised, long-distance operations account for a substantial proportion of large-scale IUU fishing in the WIO. This is because few WIO countries have significant domestic industrial fishing industries; instead, domestic fleets tend to be artisanal, small scale and fish close to the shore, not in EEZs.⁷⁵ (Exceptions include the semi-industrial fleets of the Seychelles and South Africa, and to a lesser extent Mozambique; with each of these countries also flagging foreign vessels under joint agreements, as in the case of Chinese vessels operating in Mozambique's EEZ, or Japanese vessels in those of South Africa). As a result, large-scale IUU fishing in countries such as Tanzania tends to be dominated by foreign actors from outside the region. Meanwhile, government revenues from large-scale capture fisheries tend to derive from licensing, rather than homegrown fishing.

In 2017, for example, as many as 460 foreign longliners, purse seiners and service vessels were licensed to fish by the countries of FISH-i Africa, a partnership between Comoros, Kenya,

70. Yunus Husein, 'Indonesia's Fight Against Illegal, Unreported And Unregulated Fishing', presentation given at Our Ocean Conference, 29–30 October 2018, Bali, Indonesia, <http://pesforum.org/docs/2018/DFC_Indonesia.pdf>, accessed 5 March 2019.

71. Steve Mollman, 'An Illegal Fishing Vessel Wanted by 13 Nations Has Finally Been Destroyed by Indonesia', *Quartz*, 15 March 2016.

72. Husein, 'Indonesia's Fight Against Illegal, Unreported And Unregulated Fishing'.

73. *Maritime Executive*, 'Escaped Fishing Vessel Recaptured in Indonesia', 9 April 2018; *Sea Shepherd*, 'Hot Pursuit of Toothfish Poacher Ends with Arrest in Indonesia', 7 April 2018; authors' interview with IG1, government representative, Jakarta, 18 July 2018.

74. Richard Gray, 'The Hunt for the Fish Pirates Who Exploit the Sea', *BBC Future*, 18 February 2019.

75. M O Bergh et al., 'Economic, Social and Environmental Impact of Illegal, Unreported And Unregulated Fishing In Africa', African Union Inter-African Bureau for Animal Resources (AU-IBAR), Nairobi, 2016, p. xiii, <<http://www.au-ibar.org/component/jdownloads/finish/5-gi/2834-economic-social-and-environmental-impact-of-illegal-unreported-and-unregulated-fishing-in-africa>>, accessed 5 June 2019; Marie Lecomte et al., 'Indian Ocean Tuna Fisheries: Between Development Opportunities and Sustainability Issues', IDDRI, June 2017, p. 11.

Madagascar, Mauritius, Mozambique, Seychelles, Somalia and Tanzania.⁷⁶ Where monitoring, control and surveillance (MCS) activity is poorly resourced, this leaves EEZs vulnerable to IUU activity by distant-water fleets. Indeed, 15 investigations by FISH-i Africa between 2012 and 2017 involved vessels from 23 flag states, 13 ports, and owners and operators from at least 12 countries.⁷⁷ In some cases, these vessels remain closely networked. For example, the 19 foreign vessels cumulatively fined €6.8 million for leaving Tanzania's EEZ without inspection during 2018's Operation *Jodari* – a public–private enforcement operation with the NGO Sea Shepherd – all had the same agent.⁷⁸ These networks are often hidden behind corrupt practices and complex company structures that obscure the beneficial owners – those who actually gain from the IUU fishing activities.

The picture is somewhat more diverse in the focus countries in SEA, where large-scale IUU fishing is often conducted by a mix of homegrown fleets, as well as neighbouring and distant-water fleets from outside the region. This situation has come about, over recent decades, as SEA fisheries have transformed from small-scale capture fisheries catering to a domestic market into a combination of smaller- and larger-scale export-oriented fisheries.⁷⁹

Organised IUU activity by neighbouring states is particularly important in SEA. In Indonesia, for example, from the start of 2013 to July 2017, the KKP (Indonesian Ministry of Maritime Affairs and Fisheries) reported arresting 476 fishing vessels, of which 70% were foreign.⁸⁰ Neighbouring Vietnam is often singled out: from November 2014 to August 2018, authorities sunk 276 Vietnamese vessels in Indonesian waters,⁸¹ while a 2017 government report noted that 14,000 Vietnamese nationals had been intercepted fishing in foreign waters between 2011 and 2016.⁸² In the first five months of 2019, there were reportedly 41 cases of IUU fishing by Vietnamese vessels in foreign waters.⁸³ For their part, officials in Vietnam have begun to recognise that

76. Stop Illegal Fishing, 'Illegal Fishing? Evidence and Analysis', 2017, p. 26.

77. *Ibid.*

78. Authors' telephone interview with N30, NGO representative, March 2019; authors' interview with C12, independent consultant, Cape Town, April 2019; *Sea Shepherd*, 'LEGAL UPDATE: Two More Arrests in Tanzanian Illegal Fishing Investigation', 5 June 2018.

79. FAO and OECD, *OECD-FAO Agricultural Outlook 2017-2026: Special Focus: Southeast Asia* (Paris: OECD Publishing, 2017), p. 65.

80. KKP and JICA, 'Indonesia: Marine and Fisheries Book 2017', p. 24.

81. Participant presentation at roundtable, 'Countering the Threats of IUU Fishing', 20 July 2018; Mas Achmad Santosa, 'Combating IUU Fishing and Fisheries Crime: Presentation at the 4th International Symposium on Fisheries Crime', Copenhagen, 15 October 2018, <<https://bluejustice.org/fishcrime/wp-content/uploads/2018/11/Combating-IUU-Fishing-Fisheries-Crime.pdf>>, accessed 23 October 2019.

82. Stop Illegal Fishing, 'Cases of Vietnamese Caught Fishing in Foreign Waters on the Rise: Report', 5 December 2017, <<https://stopillegalfishing.com/press-links/cases-vietnamese-caught-fishing-foreign-waters-rise-report/>>, accessed 23 October 2019.

83. *Tuoi tre*, 'Không giải quyết được khuyến nghị của EC, thủy sản có nguy cơ dính 'thẻ đỏ' ['Without Implementing EC Recommendations, the Seafood Sector is at Risk of Being Given a "Red Card"'],

their fishers are part of the problem,⁸⁴ but have also denounced neighbours for IUU fishing in Vietnam's waters.⁸⁵ Clashes with Chinese fishing vessels in Vietnam's EEZ might suggest that the country is both a victim and a regional exporter of IUU fishing, with the issue exacerbated by ongoing maritime territorial disputes.⁸⁶

IUU Fishing and Organised Crime in Territorial Seas

Across all focus countries, attention continues to centre on organised criminal IUU fishing in EEZs as the greatest threat. This is unsurprising: EEZs contain 90% of the world's fish stocks and are a key focus for large-scale IUU operators.⁸⁷ Yet, in parallel, all focus countries suffer IUU fishing and related organised criminal activity in their territorial seas. Here, perpetrators can be small-scale fishers, driven more by need than by greed, but they can also be industrial vessels and other criminal operators fishing illegally in these seas.

Although not the main focus of this report, a number of examples of organised criminal activity in focus country territorial waters are worth mentioning briefly. A notable case involves the role of organised crime groups in illegally harvesting abalone and rock lobster in South Africa for Asian markets. Pointing to the scale of this trade, the environmental monitoring network TRAFFIC estimates that, between 2000 and 2016, around \$891 million of abalone was illegally harvested in South Africa, equal to 2,174 tonnes per year.⁸⁸ Speaking to the organised criminal dimensions of this trade, an estimated 43% of poached abalone is known to travel through criminal networks across sub-Saharan Africa, before being flown to Hong Kong.⁸⁹

A further example of organised illegal activity in the near shore concerns dynamite or 'blast' fishing in Tanzania and Indonesia. Over the years, this activity has permanently damaged more than 65% of Indonesia's reefs and devastated parts of Tanzania's coastline.⁹⁰ In 2016, there were an estimated 60,000–80,000 blasts along Tanzania's mainland coast.⁹¹ In the same year,

21 June 2019.

84. *Ibid.*

85. Authors' interview with VG2, VG3, VG4, government representatives, Hanoi, July 2018.

86. John Reed, 'South China Sea: Fishing on the Front Line of Beijing's Ambitions', *Financial Times*, 24 January 2019. Although neighbouring IUU incursions also occur in the WIO, these are generally small in scale and less significant than IUU activity by vessels from further afield.

87. Carmen-Paz Martí, 'International Fisheries Relations', European Parliament, April 2019, <<http://www.europarl.europa.eu/factsheets/en/sheet/119/international-fisheries-relations>>, accessed 23 October 2019.

88. Okes et al., *Empty Shells*, p. 28.

89. *Ibid.*, p. iv.

90. Office of the Director of National Intelligence of the United States of America, 'Global Implications of Illegal, Unreported, and Unregulated (IUU) Fishing', 19 September 2016, p. 12, <<https://fas.org/irp/nic/fishing.pdf>>, accessed 23 October 2019.

91. Jason Rubens, 'Combating Blast-Fishing in Tanzanian Marine Waters: Progress, Achievements and Lessons, 2016-2018', unpublished report to Hotel Association of Tanzania (HAT) and Best Dialogue,

the Tanzanian government cited this as the most acute IUU fishing issue facing the country, with law enforcement describing the organised criminal characteristics of the groups involved.⁹² As recently as 2015, the government confiscated a reported 35 detonators, 17 explosives and 252 kg of urea – all used to make homemade ‘bombs’.⁹³ Across the focus countries, these cases point to the need to address the links between IUU fishing and organised crime not only in EEZs, but also nearer to shore.

IUU Fishing and Convergence Crime

As awareness of these organised criminal dynamics has expanded, the international community has also grown increasingly aware of overlaps with various forms of associated criminal activity. Stop Illegal Fishing has described IUU vessels as ‘floating centres of lawlessness’,⁹⁴ while UNODC has described them as hubs for a ‘perfect storm of illegal activities in the fishing sector’.⁹⁵ This section considers evidence of such ‘crime convergence’ in the focus countries, covering economic crimes such as corruption, fraud and money laundering, and other associated crimes.

Corruption, Fraud and Money Laundering

The global evidence base on corruption and fraud associated with IUU fishing has increased gradually in recent years. On a macro scale, research has highlighted vulnerabilities throughout the value chain, from the negotiation of access agreements to the bribery of fisheries and customs agents to evade enforcement action.⁹⁶ UNODC attributes corruption vulnerabilities to three factors: the global nature of supply chains; growing competition for fishing resources; and an endemic lack of transparency in the fishing industry.⁹⁷

To date, however, few studies have examined the nature of corruption affecting the focus countries, with the exception of research related to inland waters, such as Lake Victoria, and various reports that mention links between corrupt officials and IUU fishing in Thailand.⁹⁸ The

2018, p. 11.

92. Robert E Katikiro and Jairos J Mahenge, ‘Fishers’ Perceptions of the Recurrence of Dynamite-Fishing Practices on the Coast of Tanzania’, *Frontiers in Marine Science* (Vol. 3, November 2016), p. 2; authors’ interview with TZG4, government representative, Dar Es Salaam, April 2019; Julia Amberger, ‘The Hunt for Dynamite Fishers in Tanzania’, *Ozy*, 15 February 2018.
93. Katikiro and Mahenge, ‘Fishers’ Perceptions of the Recurrence of Dynamite-Fishing Practices on the Coast of Tanzania’, p. 2.
94. Stop Illegal Fishing and PescaDOLUS, ‘Record of The First International Symposium on FishCRIME’, p. 2.
95. UNODC, ‘Fisheries Crime: Bringing to Light the Perfect Storm of Illegal Activities in the Fishing Sector’, 25 May 2016.
96. UNODC, ‘Rotten Fish: A Guide on Addressing Corruption in the Fisheries Sector’, 2019.
97. *Ibid.*, p. 7.
98. UNODC, ‘Improving Integrity in Fisheries Value Chains of Southeast Asia’, 29 November 2017; Fiona Nunan et al., ‘Compliance, Corruption and Co-Management: How Corruption Fuels

published evidence that does exist reinforces the global-level finding that these phenomena occur at every stage of the value chain. This was supported by interviewees consulted as part of the research for this report.

In Thailand, experts described corruption as ‘probably the biggest problem’ in efforts to combat IUU fishing, while interviewees in Vietnam talked of corruption as ‘just a way of life’ in the sector.⁹⁹ In Indonesia, respondents pointed to corruption linked to IUU fishing ‘at every level, in every transaction’.¹⁰⁰ These views were reiterated in the other focus countries,¹⁰¹ while data gathered by Stop Illegal Fishing suggests that document forgery and fraud, registration deception, and corrupt business practices were present in 80% of all cases investigated.¹⁰²

In some cases, corrupt officials are directly involved in IUU activity. In South Africa, for example, nine Department of Agriculture, Forestry and Fisheries (DAFF) officials were arrested in February 2018 for direct involvement in abalone poaching. Evidence leading to their arrests included 122 pages of transcribed telephone conversations allegedly detailing their intent to steal abalone from poachers and acquire firearms to protect their criminal enterprise.¹⁰³ Corruption among law enforcement in the Western Cape, where most abalone and rock lobster are harvested, was one of the motivations for involving officers from out of area in two-month rotations during Operation *Neptune II*.¹⁰⁴

More often, corruption acts as a heavily institutionalised enabler, a well-known ‘part-and-parcel’ element of doing business across the supply chain.¹⁰⁵ Indeed, where corruption

Illegalities and Undermines the Legitimacy of Fisheries Co-Management’, *International Journal of the Commons* (Vol. 12, No. 2, October 2018), p. 58–79; Human Rights Watch, ‘Hidden Chains: Rights Abuses and Forced Labor in Thailand’s Fishing Industry: Recommendations’, 2018, <https://www.hrw.org/sites/default/files/supporting_resources/201801asia_thailand_recommendations_0.pdf>, accessed 23 October 2019; EJF, *Thailand’s Seafood Slaves: Human Trafficking, Slavery and Murder in Kantang’s Fishing Industry* (London: Environmental Justice Foundation, 2015).

99. Authors’ interview with O2, representative of international organisation, Bangkok, 4 July 2018; authors’ interview with C4, C5, C6, independent consultants, Bangkok, 6 July 2018; authors’ interview with O11, O12, representatives of international organisation, Hanoi, July 2018.

100. Authors’ interview with G1, G2, G3, representatives of diplomatic mission, Jakarta, July 2018; authors’ interview with O8, O9, representatives of international organisation, Jakarta, July 2018.

101. Authors’ interview with N28, NGO representative, London, March 2019.

102. Stop Illegal Fishing, ‘Fish-i Africa: Our Future’, 2017, p. 11, <https://www.fish-i-africa.org/wp-content/uploads/2017/09/FISH-i_Africa_Our_future_WEB.pdf>, accessed 23 October 2019.

103. Aron Hyman and Bobby Jordan, ‘Officials Charged With Corruption Over Abalone Poaching are Back at Work’, *Times Live*, 20 June 2018; Kimon de Greef, ‘Fisheries Department Rotting from the Top’, *News24*, 13 November 2018.

104. Anthony Minnaar, Leandri van Schalkwyk and Sarika Kader, ‘The Difficulties in Policing and Combatting of a Maritime Crime: The Case of Abalone Poaching Along South Africa’s Coastline’, *Journal of the Indian Ocean Region* (Vol. 14, No. 1, January 2018), p. 79.

105. Authors’ interview with N28, NGO representative, London, March 2019.

becomes entrenched, interviewees reported significant difficulty in tackling the core drivers of IUU and in the enforcement of regulations, given the structural incentives for public officials to seek bribes. Sometimes vested interests were reported at a political level, where officials have private fishing interests or depend on electoral support from coastal constituents.¹⁰⁶ Such incentives for corruption also apply to negotiations over fisheries access agreements, where an ongoing lack of transparency continues to elicit suspicions of corruption.¹⁰⁷

In all focus countries, the role of the agent (or ‘broker’) was identified as an essential node in corrupt networks. Among other services, the agent pays for the fish when it lands before selling it on, taking a small margin. By their nature, agents are paid to navigate the political economy of a given country, landing catches and securing licences at the lowest cost. As a result, they are well equipped to make ‘smart’ bribes – dispensing minimum resources to maximum effect.¹⁰⁸ The embeddedness of these agents in a country’s political economy has been identified as a key obstacle to rooting out corruption in the system – including facilitating the trafficking of unwitting victims onto IUU vessels.¹⁰⁹

The giving of bribes to avoid enforcement action is also common. A 2016 AU report notes that bribery of MCS officials occurs regularly, citing the case of the Hout Bay Fishing Company’s involvement in rock lobster poaching in South Africa in the 1990s, when fishery inspectors were bribed to not report overfishing.¹¹⁰ In Indonesia, interviewees stressed the lucrative nature of bribes relative to low salaries.¹¹¹ Speaking further to the scale of the incentives, a 2017 investigation by Malaysian authorities found that Vietnamese fishers had bribed Malaysian officials RM50,000–200,000 (£10,000–£38,000) per vessel for permits to fish in the country’s eastern seas and a free pass to fish illegally.¹¹²

106. Josh Stride, ‘Assessing Government and Business Responses to the Thai Seafood Crisis’, Freedom Fund, 2016, p. 19; authors’ interview with C1, independent consultant, Bangkok, July 2018.

107. André Standing, ‘Criminality in Africa’s Fishing Industry: A Threat to Human Security’, Africa Security Brief, No. 33, 6 June 2017, <<https://africacenter.org/publication/criminality-africa-fishing-industry-threat-human-security/>>, accessed 23 October 2019; Dyhia Belhabib et al., ‘Euros vs. Yuan: Comparing European and Chinese Fishing Access in West Africa’, *PLOS ONE*, 20 March 2015, <<https://doi.org/10.1371/journal.pone.0118351>>.

108. Authors’ interview with N32, NGO representative, Dar Es Salaam, April 2019.

109. UNODC, ‘Rotten Fish’; Aksel Sundström, ‘Corruption in the Commons: Why Bribery Hampers Enforcement of Environmental Regulations in South African Fisheries’, *International Journal of the Commons* (Vol. 7, No. 2, August 2013), pp. 454–72; authors’ interview with C12, independent consultant, Cape Town, April 2019.

110. Bergh et al., *Economic, Social and Environmental Impact of Illegal, Unreported And Unregulated Fishing In Africa*, p. 9; Bill Blumenfeld, ‘Hout Bay fishing Company Found Guilty’, *Independent Online*, 30 April 2002.

111. Authors’ interview with N4, NGO representative, Jakarta, 17 July 2018.

112. Charles Ramendran, ‘MMEA, DoF Officers Arrested Over Bribes for Illegal Fishing Activities’, *Sun Daily*, 6 November 2017.

Corruption is also used regularly to escape punishment for IUU fishing and related crimes.¹¹³ Indeed, the research revealed that in none of the focus countries are officials regularly prosecuted for facilitating IUU fishing or associated crimes. This is unsurprising as prosecution rates are low even for corruption associated with the most serious crimes, such as human trafficking: the US State Department points to ‘endemic corruption’ in Indonesia resulting in only one official being prosecuted for complicity in human trafficking in 2017.¹¹⁴

At other times, corrupt practices overlap closely with fraud. This can occur particularly in the issuing of fishing licences to IUU operators. For example, the act of ‘marking down’ vessels or registering them as a lower GT enables operators to systematically gain benefits reserved for smaller vessels – activity which, when routinely carried out by a group, indicates the existence of organised crime.¹¹⁵ In Indonesia, an official spoke of vessels in Central Java as large as 140 GT marked as less than 30 GT.¹¹⁶

Fraud is also seen in broader licensing processes. One case concerns a fake licensing operation uncovered in Tanzania in 2012, following the discovery of two tuna longliners with fraudulent licences in the EEZ.¹¹⁷ These were obtained through at least one corrupt Tanzanian fishery official, working with an agent on behalf of the Taiwanese vessel owners, taking payment through a private bank account.¹¹⁸ Investigations uncovered a further 11 forged licences, with at least \$100,000 forfeited to the state.¹¹⁹ Described as an ‘organised crime network’ by an experienced MCS expert, these officials were also linked to the issuance of forged licences to vessels from the Seychelles.¹²⁰

Beyond corruption and fraud, evidence around money laundering linked to IUU fishing remains highly limited. On a global scale, the OECD has reported a reliance on shell companies and jurisdictions enabling ownership secrecy, but little empirical evidence exists.¹²¹ Interviewees’ lack of information is likely due to the failure to apply financial investigation tools to the study of IUU fishing and to the fact that anti-money-laundering legislation in many jurisdictions does not cover this activity. Yet it is clear that money laundering is a critical part of IUU business models

113. Authors’ interview with N18, N19, N20, NGO representatives, Bangkok, July 2018.

114. US Department of State, ‘Indonesia’, Trafficking in Persons Report 2017.

115. Stop Illegal Fishing, ‘Illegal Fishing?’, p. 36; authors’ telephone interview with O14, representative of international organisation, July 2018.

116. Authors’ interview with IG2, government representative, Jakarta, July 2018.

117. Fish-i Africa, ‘Fake Licensing Operation Uncovered in Tanzania’, <<https://fish-i-africa.org/what-we-do/fish-i-investigations/fake-licensing-operation-uncovered-in-tanzania/>>, accessed 23 October 2019.

118. Stop Illegal Fishing, ‘Illegal Fishing?’, p. 10.

119. Geoffrey Nanyaro, ‘The Tanzanian Experience with MCS’, Tanzania Deep Sea Fishing Authority, 2014, <http://www.imcsnet.org/wp-content/uploads/2014/10/Geoffrey-Nanyaro_Presentation.pdf>, accessed 23 October 2019.

120. Interview with N28, NGO representative, London, March 2019.

121. OECD, ‘Evading the Net: Tax Crime in the Fisheries Sector’, 2013.

– the ability to integrate proceeds into the legitimate economy is what ultimately renders IUU fishing profitable. Dedicated research into the nature and dynamics of the illicit financial flows generated, and the means used to launder them, is thus urgently needed.

Modern Slavery and Human Trafficking

Beyond economic crimes, large-scale IUU fishing has been linked to other crimes across the focus countries. Most prominent are links to human trafficking for the purposes of forced labour, although few reliable estimates of prevalence exist. A 2017 estimate by the International Labour Organization (ILO) – considered conservative – counts up to 2 million victims of modern slavery across the fishing and agricultural sectors globally.¹²² Responding to the scale of the issue, Interpol issued a Purple Notice¹²³ to all 190 member countries in 2017, describing the methods used to transport unsuspecting workers onto vessels,¹²⁴ based primarily on patterns uncovered in SEA.

The Global Slavery Index and partners have identified six risk factors for modern slavery in fisheries. These include high subsidies, indicating low competitiveness; large numbers of vessels in foreign EEZs, where there is reduced oversight; a reliance on distant-water fishing; large-scale IUU fishing; a low average catch per fisher, indicating low productivity; and low per capita GDP, limiting resources for MCS.¹²⁵ Across the focus countries, interviewees also highlighted the role of informal recruitment channels, unmonitored transshipment and poorly regulated ports.¹²⁶ Poverty and economic migration were considered further risks, producing a stream of disenfranchised workers. Labour shortages in the Thai fishing industry were highlighted in particular: in 2017, Thailand registered more than 57,000 migrant workers on 6,700 commercial fishing vessels, with recruitment practices often open to abuse.¹²⁷

Evidence of links to human trafficking is particularly robust in the SEA focus countries. Here, numerous high-profile exposés have revealed the plight of those trapped at sea. In 2015, for example, the *Associated Press* published an investigation into slavery in the Indonesian village of Benjina, finding that men – mostly from Myanmar – had been forced to fish 20–22 hours a day,

122. International Labour Organization (ILO) and Walk Free Foundation, *Global Estimates of Modern Slavery: Forced Labour and Forced Marriage* (Geneva: International Labour Organization and Walk Free Foundation, 2017), p. 8.

123. An Interpol Purple Notice seeks or provides information on modus operandi, objects, devices and concealment methods used by criminals.

124. Interpol, 'INTERPOL Warning on Human Trafficking Links to the Fishing Industry', 4 May 2017.

125. Global Slavery Index, 'Importing Risk: Fishing'.

126. Roundtable contribution by TZG13, government representative, Dar Es Salaam, April 2019; authors' interview with SAG8, government representative, Cape Town, April 2019; authors' interviews with O5, O6, O7, representatives of international organisation, Jakarta, July 2018.

127. European Union and ILO, 'Ship to Shore Rights Project: Baseline Research Findings on Fishers and Seafood Workers in Thailand' (Geneva: International Labour Organization, 2018), p. 7; Stride, 'Assessing Government and Business Responses to the Thai Seafood Crisis', p. 11.

and were subjected to violence on board IUU vessels.¹²⁸ Indonesian authorities subsequently found that 682 seamen had become victims in Benjina,¹²⁹ forced to work on vessels engaged in illegal transshipment, the use of prohibited gear, forgery and double-flagging. The Benjina case was linked to another on the island of Ambon, where 391 fishers were forced to work excessive hours without pay.¹³⁰

In WIO focus countries, relevant cases include a 2014 International Organization for Migration (IOM) study of Cambodian fishers trafficked by the Giant Ocean International Fishery Company onto deep-sea vessels operating off South Africa.¹³¹ Company records and over 200 police complaints suggest that up to 700 men were sent abroad by the agency, while interviews with 31 victims revealed that none had access to ID documents, all had been at sea for multiple years, and all but two endured psychological and physical abuse. Other instances include 75 Indonesian and Taiwanese crew repatriated from Cape Town in 2013, some of whom reported working on tuna vessels for between three and five years without pay.¹³²

Indicators of forced labour were also identified on vessels inspected under Operation *Jodari* in 2018, in particular the Malaysian-flagged *Buah Naga 1* and the Chinese-flagged *Tai Hong 1*.¹³³ On both vessels there was evidence of illegal shark finning, but the crew also reported abuse, deprivation of food and water, and cramped and unventilated living conditions. As Operation *Jodari* represents the first time Tanzania has been able to effectively patrol its EEZ since independence, these cases suggest that the scale of the problem may be larger. Reinforcing this, a 2016 AU report noted: 'There is very little documented information on the scale and exact nature of these human rights abuses ... [with] further work to better ascertain these linkages ... urgently required'.¹³⁴

128. Robin McDowell, Margie Mason and Martha Mendoza, 'AP Investigation: Slaves May Have Caught the Fish You Bought', *Associated Press*, 25 March 2015.

129. International Organization for Migration (IOM), 'Report on Human Trafficking, Forced Labour and Fisheries Crime in the Indonesian Fishing Industry', 2016, p. 20.

130. IOM, 'Report on Human Trafficking, Forced Labour and Fisheries Crime in the Indonesian Fishing Industry'; Ioannis Chapsos and Steve Hamilton, 'Illegal Fishing and Fisheries Crime as a Transnational Organized Crime in Indonesia', *Trends in Organized Crime* (Vol. 22, No. 3, September 2019), pp. 255–73.

131. Greenpeace, 'Turn the Tide: Human Rights Abuses and Illegal Fishing in Thailand's Overseas Fishing Industry', 2016; Rebecca Surtees, 'In African Waters: The Trafficking of Cambodian Fishers in South Africa', IOM and Nexus Institute, 2014, p. 18.

132. FISH-i Africa, 'Investigation No. 5: Fugitives from Justice', <<http://fishforce.mandela.ac.za/getmedia/95451ffc-d714-44a7-9510-8b6ae63274a4/05-Fugitives-from-justice?disposition=attachment>>, accessed 23 October 2019; *Undercurrent News*, 'South Africa Detains Tuna Vessels Over Slave Labor', 29 January 2014.

133. FISH-i Africa, 'Crew Exploitation Uncovered in Western Indian Ocean', 16 February 2018; Stop Illegal Fishing, 'Operation Jodari', Stop Illegal Fishing Case Study Series 16, January 2019.

134. Bergh et al., *Economic, Social and Environmental Impact of IUU Fishing in Africa*, p. 96.

Drug Trafficking

A final area covered in the research relates to potential overlaps with drug trafficking. These were discussed bearing in mind the frequent use of fishing vessels in drug-trafficking operations across the so-called 'Southern Route' for heroin trafficking from South Asia to Europe via the WIO. In 2016, for example, Seychelles authorities seized 98.5 kg of heroin and opium from an Iranian dhow, which was to be transferred by fishing vessels to Tanzania.¹³⁵ In Mozambique and Kenya, too, heroin is reportedly transferred from dhows to small fishing boats that transport it to the mainland.¹³⁶ In SEA, fishing vessels are also used to smuggle drugs: in February 2018, the Indonesian navy intercepted two fishing vessels each carrying over a tonne of crystal methamphetamine.¹³⁷ Given the apparently widespread use of fishing boats for drug trafficking, it was expected that there would be some convergence between IUU fishing and drug trafficking.

However, no evidence was found of vessels engaging in fisheries violations associated with IUU activity and drug trafficking simultaneously. Interviewees working across the Southern Route noted that most professional traffickers instead go 'to great lengths' to appear as if legitimate fishing is taking place to remain inconspicuous.¹³⁸ According to one, along Africa's east coast, vessels transporting drugs from dhows offshore to the coast are mostly 'legal fishing vessels that engage in a[n illicit] side business', with 'no indication' that they are involved in fisheries violations.¹³⁹ However, overlaps were found where commodities are used as part of a barter payment system. For example, connections with drug trafficking in South Africa's illegal abalone trade are well established. East Asian organised crime groups are known to have forged 'cash-free' relationships with the Cape gangs controlling the local drug market, swapping abalone for precursors used to create methamphetamine.¹⁴⁰ A similar example includes live-hatch eggs poached from turtle breeding grounds along the East African coast, which are then exchanged for drugs or cash.¹⁴¹

135. Stop Illegal Fishing, 'Illegal Fishing?', p. 18.

136. Simone Haysom, Peter Gastrow and Mark Shaw, 'The Heroin Coast: A Political Economy Along the Eastern African Seaboard', 2018, Global Initiative Against Transnational Organized Crime, p. 12, <<https://globalinitiative.net/wp-content/uploads/2018/07/2018-06-27-research-paper-heroin-coast-pdf.pdf>>, accessed 28 October 2019.

137. Francis Chan, 'Indonesian Navy Seizes Boat With One-Tonne of Crystal Meth in Waters off Batam', *Straits Times*, 10 February 2018; Wahyudi Soeriaatmadja, 'Indonesia Seizes Second Drug-Loaded Boat Falsely Flying Singapore Flag', *Straits Times*, 21 February 2018.

138. UNODC, 'Transnational Organized Crime in the Fishing Industry', 2011, p. 93; authors' interview with N28, NGO representative, London, March 2019; authors' telephone interview with O24, representative of diplomatic mission, March 2019; authors' interview with G10, representative of diplomatic mission, Dar Es Salaam, April 2019.

139. Authors' telephone interview with O21, representative of international organisation, 27 February 2019.

140. Donald Liddick, 'The Dimensions of a Transnational Crime Problem: The Case of IUU Fishing', *Trends in Organized Crime* (Vol. 17, No. 4, January 2014), pp. 290–312; Okes et al., *Empty Shells*, p. 3.

141. Bergh et al., *Economic, Social and Environmental Impact of IUU Fishing in Africa*, p. 85.

Taken together, the findings illustrate the transnational, multidimensional challenges posed by large-scale IUU fishing and associated crimes across the focus countries. Although in many cases these organised criminal dynamics are clear, they rarely represent what may be commonly imagined as ‘conventional’ organised crime or ‘mafia’-style operations – instead aligning more to a model of corporate criminality, conducted under a veil of perceived legitimacy by ostensibly legally operating entities. This complex, multifaceted threat landscape inevitably poses significant obstacles to the design of effective responses. The remaining chapters of this report consider experience to date in efforts to conceive and implement such responses across the focus countries.

III. Responding to the Threat: Governance Frameworks

IN RESPONDING TO the dynamics outlined in Chapter II, the overall aim of counter-IUU actors must be to convert IUU fishing from a low-risk, high-reward activity to a *high-risk, low-reward* activity. To do this, states must have in place the governance and institutional frameworks to allow effective disruptive and deterrent action against a multidimensional threat. All focus countries have taken steps to enhance structures and frameworks to address large-scale IUU fishing in recent years. This chapter considers experience in four key areas: legislative and sanctions reform; revised licensing practices; creation of multi-agency task forces; and embracing cross-border frameworks. In each case, it assesses how far action to date has empowered counter-IUU actors to effectively address the dynamics discussed previously.

Strengthening Domestic Legislation and Increasing Sanctions

That IUU fishing remains a low-risk and high-reward activity across the globe is in part a function of weak legislation. This results in the issuance of penalties that often pale in comparison with the potential profits to be gained from IUU activity. Although few recent analyses exist, one 2010 OECD study concludes that, globally, penalties would have to increase up to 24 times to match the profits made from the crime.¹⁴² For this reason, there is a need to strengthen legislation, such that penalties for the most harmful forms of IUU fishing meet the UNTOC definition of ‘serious crime’ – a four-year minimum sentence.¹⁴³

Most focus countries have taken steps to increase sanctions for IUU fishing. In Thailand, where penalties for illegal fishing were historically as low as THB50 (\$1.40), legislation passed in 2015 increased fines to at least THB200,000 (\$6,600),¹⁴⁴ while custodial sentences have also been meted out.¹⁴⁵ In Vietnam, the amended Fisheries Law, which took effect in January 2019, increased sanctions for some IUU fishing activities to up to VND4 billion (\$221,000) and up to 10 years in prison.¹⁴⁶

142. Patrick Love, *Fisheries: While Stocks Last?* (Geneva: OECD, 2010), p. 66.

143. UNODC, ‘United Nations Convention against Transnational Organized Crime and the Protocols Thereto’, p. 5.

144. Stride, ‘Assessing Government and Business Responses to the Thai Seafood Crisis’, p. 6.

145. Royal Thai Embassy in the Netherlands, ‘Prime Minister led the Cabinet to Visit Samut Sakhon Province for a Follow-up Session to Address Illegal Fishing and Labour in the Fisheries Sector’, press release, 5 March 2018.

146. National Assembly of Vietnam, ‘Aquatic Law’, Law No. 18/2017/QH14, 21 November 2017, Article 105, <<https://thuvienphapluat.vn/van-ban/Tai-nguyen-Moi-truong/Law-18-2017-QH14-on-fisheries-372768.aspx>>, accessed 23 October 2019; VASEP, ‘Fisheries Law (Amended): Vietnam’s

Legislation also offers notable sanctions in the other focus countries. In Indonesia, those fishing without a licence in an Indonesian-flagged vessel can be imprisoned for up to six years and fined RBP5 billion (\$173,000) and foreign-flagged vessels can be fined RBP20 billion (\$661,000).¹⁴⁷ Those using fake licences face up to seven years in prison and a RBP20 billion (\$661,000) fine.¹⁴⁸ In South Africa, those contravening certain provisions of the Marine Living Resources Act of 1998, such as fishing without a licence, face fines up to ZAR2 million (\$137,000) or up to five years' imprisonment.¹⁴⁹ Tanzania has the strictest penalties of the countries surveyed: IUU fishing can earn fines of up to TZS1 billion (\$435,000) or up to 20-year prison sentences.¹⁵⁰

Promisingly, several of these legal regimes place a growing premium on sanctioning not only the captain, but also beneficial owners and companies integral to illegal supply chains. A number of cases in Indonesia have established corporate liability for IUU fishing, as have others in South Africa and Thailand.¹⁵¹ Some countries have also made use of asset recovery measures. In 2015, Thai police, working with the Anti-Money Laundering Office (Thailand's financial intelligence unit) seized the assets of a company based in Kantang in southwest Thailand involved in IUU fishing and human trafficking.¹⁵² In South Africa, asset recovery is incentivised by the 1998 Marine Living Resources Fund, which reinvests seized assets in DAFF operational activity.¹⁵³ Yet a lack of capacity and resources often prevents a more systematic use of this approach, with provisions unclear on what should happen to recovered assets.

Commitments on IUU Have Been Incorporated into the Law', 7 December 2017, <http://seafood.vasep.com.vn/whybuy/749_12346/fisheries-law-amended-vietnams-commitments-on-iuu-have-been-incorporated-into-the-law.htm>, accessed 23 October 2019; *Viet Nam News*, 'Positive Actions Adopted to Fight IUU', 19 April 2018.

147. 'Law of the Republic of Indonesia No. 31/2004 Concerning Fishery with the Grace of Almighty God, President of the Republic of Indonesia', Article 93, <<http://www.flevin.com/id/lgso/translations/JICA%20Mirror/english/17.31.2004.eng.qc.html>>, accessed 23 October 2019.
148. 'Amendment to Law No. 31 Year 2004 Concerning Fishery (R.I. Law No. 45 Year 2009, dated October 29, 2009)', <<http://extwprlegs1.fao.org/docs/pdf/ins97600.pdf>>, accessed 23 October 2019.
149. 2004 Marine Living Resources Act [South Africa], Article 58.1(b).
150. Deep Sea Fishing Authority Act 1998 [Tanzania], Article 18.
151. Authors' telephone interview with A7, academic, June 2018; Basten Gokkon, 'Indonesia Targets Illegal Fishing Vessel Owners Under New Bill', *Mongabay*, 31 May 2018; Yunus Husein, 'Strategy on Combating IUU Fishing and Post Moratorium Policies Plan', Presentation to Symposium on FISHCRIME, 12–13 October 2015.
152. MFA, 'Joint Operation to Combat Human Trafficking in the Fishing Industry', 2015, <<http://www.thaiembassy.org/copenhagen/en/news/5939/65163-Joint-operation-to-combat-human-trafficking-in-the.html>>, accessed 21 October 2019; EJF, *Thailand's Seafood Slaves*, p. 7; EJF, 'Press Release: 14 Year Jail Sentences for Thai Human Traffickers', 21 March 2017.
153. Department of Agriculture, Forestry and Fisheries (DAFF), *Marine Living Resources Fund, Annual Report 2016-2017* (Pretoria: Republic of South Africa Department of Agriculture, Forestry and Fisheries, 2018).

Another form of sanction is the destruction of IUU vessels, a policy pursued in Indonesia in what one official described as ‘shock therapy’.¹⁵⁴ From November 2014 to August 2018, Indonesian authorities reportedly scuttled or destroyed 488 vessels, the majority from Vietnam (276), the Philippines (90), Thailand (50), and Malaysia (41), with only 26 from Indonesia itself.¹⁵⁵ The policy has received widespread coverage in the media, leading to Indonesia being perceived as a global leader in the response to IUU fishing; however, it is too early to judge the overall impact of destroying IUU vessels. The fact that a further 51 (mostly Vietnamese-flagged) vessels were sunk in May 2019 suggests that the policy is yet to have a deterrent effect. Indeed, because Vietnamese ‘blue boats’ are subsidised and relatively cheap to build, the punitive effect may be relatively small.¹⁵⁶

The above developments nonetheless reveal clear progress towards increasing sanctions for IUU fishing. Yet there is also some way to go before the most harmful forms of IUU fishing – those forms of illegal fishing or overfishing that occur on a scale that significantly damages fish stocks and those who rely on them – are uniformly treated as serious crime in line with UNTOC, allowing counter-IUU actors to access the binding obligations UNTOC confers on its 179 state parties. However, in many cases, interviewees observed that implementation of existing legislation is more important than further legislative reform. Indeed, some experts expressed the view that an adequate (albeit imperfect) legal framework was in place; what was lacking was consistent application of available sanctions.¹⁵⁷ These considerations point to an overarching need, when considering old and new legislation, for realistic plans around implementation.

Here, the research uncovered a range of obstacles. Often the complexity of laws and regulations were found to create confusion among officials, as well as the fishers expected to comply with them. In some cases, legislation and regulations lack guidance on implementation, or are unclear or contradictory, complicating efforts to apply sanctions. For example, interviewees in Indonesia lamented the tendency to introduce new laws without repealing the old, stressing the existence of competing laws at central and provincial levels.¹⁵⁸ There is evidence that the administration acknowledges the issue: within two years of assuming power, President Joko Widodo annulled more than 3,000 local bylaws.¹⁵⁹ However, the problem remains salient in the fisheries sector.¹⁶⁰

154. Authors’ interview with IG1, government official, Jakarta, 18 July 2018; this policy represents the implementation of Law No. 45/2009, which amended Law No. 31/2004.

155. Delegate presentation at roundtable, ‘Countering the Threats of IUU Fishing’, Jakarta, 20 July 2018; Santosa, ‘Combating IUU Fishing and Fisheries Crime’.

156. Ojamaa, ‘Research for PECH Committee: Fisheries in Vietnam’.

157. Authors’ interview with O3, representative of diplomatic mission, Jakarta, July 2018; authors’ interview with VG6, government representative, Hanoi, July 2018.

158. Authors’ interviews with O8, O9, representatives of international organisation, Jakarta, July 2018; authors’ telephone interview with N26, NGO representative, June 2018.

159. Ayomi Amindoni, ‘Government Annuls 3,143 Bylaws’, *Jakarta Post*, 13 June 2016.

160. Authors’ interview with IG2, government representative, Jakarta, July 2018.

A lack of guidance on implementation also negatively affects efforts to introduce new legislation to disrupt human trafficking in the sector. For example, the introduction of Indonesia's Ministerial Regulation No. 2/2017 meant that only companies with human rights certifications were permitted to operate in Indonesian waters, with sanctions available for those in breach.¹⁶¹ This could be a key tool in improving labour standards, yet there is little guidance on how the regulation should be enacted, resulting in confusion, including among NGOs wishing to support the process.¹⁶² As a result, reportedly only two companies have been certified since the regulation was signed.¹⁶³

When considering new legislation, further obstacles arise where the implications for operational activity are inadequately considered. Here, the research highlighted issues around overlapping or ambiguous mandates, with a lack of clarity in some cases over which agencies are responsible for enforcing which law, or with responsibilities divided impractically. For example, in South Africa's marine protected areas, if fishing is allowed, the responsibility for enforcement falls under the mandate of the DAFF; if not, it falls under the Department of Environmental Affairs (DEA).¹⁶⁴ This links in with a broader issue of siloed legislation and regulations, with each area of concern – whether IUU fishing, human trafficking or corruption – dealt with through separate policy frameworks that do not necessarily align. This results in segregated implementation of fisheries-related law and regulations, as well as segregated enforcement action, creating gaps that can be criminally exploited.¹⁶⁵

In addressing these issues, interviewees stressed the need to consult even more broadly on the formulation of new legislation, across the whole of government, and with civil society and the private sector.¹⁶⁶ Such consultation mechanisms should be designed to enable legislators to better anticipate drivers of non-compliance, as well as challenges around duplication and implementation. Interviewees also stressed the need to publish legislation in all relevant local languages, and for greater engagement with citizens via educational programmes – for example,

161. Business and Human Rights Resource Centre, 'Indonesia: Ministry Creates Certification Mechanism to Address Human Rights Abuses in Fishing Industry', 31 March 2017, <<https://www.business-humanrights.org/en/indonesia-fisheries-ministry-creates-certification-mechanism-to-ensure-industry-is-free-from-human-rights-violations>>, accessed 23 October 2019.

162. Authors' interviews with N11, N12, NGO representatives, Jakarta, 16 July 2018.

163. Authors' interviews with O5, O6, O7, O8, O9, representatives of international organisations, Jakarta, July 2018.

164. Authors' interview with A11, academic, Cape Town, April 2019; WWF and South Africa Department of Environmental Affairs, 'State of Management of South Africa's Marine Protected Areas', 2014, p. 110.

165. Jessica L Sparks, 'Social Conflict on The Seas: Links Between Overfishing-Induced Marine Fish Stock Declines and Forced Labor Slavery', *Electronic Theses and Dissertations*, June 2018.

166. Authors' interviews with P4, P5, P6, private sector representatives, Bangkok, July 2018; authors' interviews with O5, O6, O7, representatives of international organisations, Jakarta, July 2018.

to address confusion among fishers of laws governing their rights, reducing vulnerability to exploitation.¹⁶⁷

The importance of such consultation is illustrated by the Thai response to chronic labour shortages in the fishing industry – predominantly by reducing the time and cost of recruiting migrants legally and registering undocumented foreign workers.¹⁶⁸ Although the government consulted with the private sector and labour-providing countries, the specific regulations adopted had unintended consequences. In an effort to encourage registration, legislation was introduced in June 2017 that made migrant workers liable to a fine and jail time if they did not register in newly established one-stop service centres.¹⁶⁹ This led to an exodus of an estimated 60,000 workers in just a few weeks.¹⁷⁰ By improving consultation, anticipating drivers of non-compliance and deploying public campaigns to encourage uptake and adherence, opportunities exist to avoid such unintended consequences.

Recommendation 1: Strengthening legislation and sanctions. Where efforts are made to strengthen legislation, proactive measures should be taken to ensure that this can be easily implemented in practice. Prior to passing legislation, attention should be paid to ensure that new laws do not contradict or stand apart from other legal frameworks, are not passed without repealing earlier legislation, and are accompanied by appropriate implementation guidance in all relevant local languages. This can be achieved by instituting systematic, whole-of-government consultation mechanisms, involving civil society and the private sector as appropriate.

Reforming Licensing Practices

In addition to challenges around the design of legislation and sanctions regimes, the research highlighted obstacles to designing effective licensing practices. A lack of scrutiny in these practices was often found to allow IUU operators free rein. To address this, several focus countries have amended existing procedures to reduce opportunities for offenders. These efforts have focused across a range of regimes, from those applicable to distant-water domestic vessels to those applied to foreign vessels operating in their waters.

Reforms in Thailand, for example, have been most far reaching for the domestic distant-water fleet. This has been prioritised in light of the fact that this fleet had been implicated in IUU

167. Authors' interviews with VG7, VG8, VG9, VG10, government representatives, Hanoi, July 2018; authors' interview with O13, representative of international organisation, Hanoi, July 2018; authors' interview with TZG2, government representative, Dar Es Salaam, April 2019; authors' interview with N17, NGO representative, Bangkok, July 2018.

168. Authors' interview with TG2, government representative, Bangkok, July 2018.

169. Royal Ordinance Concerning the Management of Foreign Workers' Employment, B.E. 2560 (2017) (Thailand).

170. Amy Sawitta Lefevre, 'Thailand's New Labor Rules Send Thousands of Migrant Workers Fleeing', *Reuters*, 3 July 2017.

fishing and human rights abuses.¹⁷¹ Following a review in which the fleet was ordered to return to port, 61 vessels were prosecuted for IUU fishing and labour violations, with a new distant-water licensing regime established in December 2015. This led to a reduction in the number of fishing licences from 76 to 20, with new overseas licences banned pending an improvement in MCS capabilities.¹⁷²

Indonesia, for its part, has transformed its licensing regime for foreign vessels. This reflects its concern over the threat from Thai- and Vietnamese-flagged IUU vessels, but also its desire to build up its domestic fishing fleet and recast Indonesia as a maritime nation. The reforms have seen foreign fishing vessels banned from Indonesian waters, with a moratorium declared in 2014 on former foreign fishing vessels – that is, those built outside Indonesia and subsequently re-flagged as Indonesian vessels.¹⁷³ This, in turn, was reported in 2018 to have reduced the fishing effort in Indonesian waters, by boat weight, by an estimated 40%.¹⁷⁴

While these reforms have sought to strengthen key aspects of national licensing regimes, they have not always been part of a comprehensive approach. Instead, some reforms have occurred in isolation, alongside a broader failure to tackle related licensing challenges. In the Indonesian case, for example, despite the implementation of licensing reforms for foreign vessels, issues within domestic licensing arrangements continue to go unaddressed. Here again, critical issues relate to the divide between central and provincial regimes, with fragmented structures creating a lack of accountability in practice.

These fragmented structures are epitomised by the fact that the central government issues licences for vessels over 30 GT, provincial governments for vessels of 10–30 GT, and district governments for those of 5–10 GT.¹⁷⁵ The system is reportedly sufficiently fragmented and complex that licensing middlemen – *chalo* – can offer to acquire licences for a fee, sometimes exploiting illiterate fishers.¹⁷⁶ Such systems can allow vessel owners to easily bribe officials at provincial level, where there may be less scrutiny.¹⁷⁷ This risk is amplified where provincial governments competing for investment have ‘soft’ requirements for businesses to set up shop.

Similar challenges around the existence of a fragmented approach persist in Tanzania. Here, the political division between mainland Tanzania and Zanzibar creates unique challenges around licensing and regulation.¹⁷⁸ Notably, Zanzibar and Tanzania have separate fisheries ministries and

171. Greenpeace, ‘Turn the Tide’.

172. FAO, ‘Global Study on Transshipment: Regulations, Practices, Monitoring and Control’, June 2018, p. 31.

173. Ministerial Regulation No. 56/2014 (Indonesia).

174. Cabral et al., ‘Rapid and Lasting Gains From Solving Illegal Fishing’.

175. Alan Koropitan, ‘Indonesia Scoping Report’, Bogor Agricultural University, August 2018.

176. Authors’ interview with N4, NGO representative, Jakarta, July 2018.

177. Authors’ interview with IG2, government representative, Jakarta, July 2018.

178. Authors’ interview with O25, representative of international organisation, Dar Es Salaam, 1 April 2019.

different licensing regimes for vessels operating in their respective near-shore waters. Despite the creation of the Deep Sea Fishing Authority (DSFA) in 2010, which centralised management of the EEZ,¹⁷⁹ this discrepancy in the near shore creates openings for criminal actors. Most prominently, it allows these actors to take advantage of the weaker scrutiny and oversight in Zanzibar, which is well known: the operations of the Zanzibar Maritime Authority, the body responsible for vessel registration for Zanzibar, were suspended in January 2018 after vessels were caught smuggling drugs and explosives.¹⁸⁰

Interviewees had limited suggestions in terms of opportunities to address the accountability gap across decentralised and devolved administrations. This is particularly challenging in a country such as Indonesia, whose 17,500+ islands span an EEZ larger than the Mediterranean Sea. The challenge here is enhanced by a longer-term trend towards further decentralisation: eight new provinces have been created since 1999 and, despite a 2009 moratorium on new provinces, another province (North Kalimantan) was established in 2012.¹⁸¹ In Tanzania, while the creation of the DSFA in 2010 was helpful in centralising the management of the EEZ, interviewees were sceptical about further integration in the current political climate.¹⁸² Indeed, although the suspension of the Zanzibar Maritime Authority triggered the establishment of a joint committee to review all vessels operating under the Tanzanian flag – and although the committee recommended the harmonisation of regulations – little further progress has been made.¹⁸³

Meanwhile, even where proactive licensing reforms have been implemented, interviewees pointed to a range of challenges. In Thailand, for example, private sector interviewees expressed concern over the impact on the country's fisheries sector of the licensing changes enacted for both the domestic commercial and the distant-water fleets. Here, they noted that the new regime had the effect of reducing the size of the commercial fleet, forcing seafood-processing factories to downsize.¹⁸⁴ Similarly, interviewees reported that Indonesia's licensing reforms had led to a reduction in fishing effort in areas such as Ambon and Bitung, forcing cold-storage and processing plants to close.¹⁸⁵ If these effects are not carefully managed, they warned, there is a danger that vessel owners will be incentivised to cut costs by other means, such as underpaying crew or adopting IUU practices.

179. Deep Sea Fishing Authority, 'History Background', <<http://www.dsfa.go.tz/history-background/>>, accessed 23 October 2019.

180. Stop Illegal Fishing, 'Tanzania Takes Action Against Flagged Vessels Operating Illegally', 19 January 2018.

181. *Borneo Post*, 'House Agrees on Creation of Indonesia's 34th Province: "North Kalimantan"', 23 October 2012.

182. Authors' interview with O30, representative of foreign delegation, Dar Es Salaam, April 2019.

183. *The Citizen*, 'Harmonise Mainland and Zanzibar Laws on Fisheries, Govt Advised', 3 June 2018.

184. Authors' interviews with P4, P5, P6, private sector representatives, Bangkok, 4 July 2018; MFA, 'Illegal Fishing Clampdown', press release, 15 October 2018.

185. Authors' interviews with O5, O6, O7, representatives of international organisation, Jakarta, July 2018; authors' telephone interviews with A5, A6, A7, academics, June 2018.

This links into another set of obstacles uncovered. Here, the research highlighted the potential negative impacts where licensing and other regulatory changes are accompanied by inadequate consultation or unrealistic timeframes. In some cases, this can give rise to issues with compliance or to negative externalities for workforces, where private sector operations are scaled back in response. In Thailand, for example, private sector interviewees complained of receiving insufficient notice to allow them to comply in the given timeframe in a number of cases.¹⁸⁶ According to the NGO Issara Institute, the notice period for legislative change in the country is just 15 days.¹⁸⁷

The research highlighted a number of opportunities for addressing this challenge. Most notably, interviewees stressed the need for the institution of a systematic, standardised and active consultative process and, on passage of legislation, the granting to companies of a realistic grace period to comply. Indeed, improved communication with the private sector was held up as having significant potential to reduce the unintended impacts of any licensing or other regulatory changes. This can also help to mitigate issues with compliance and reduce negative externalities for workforces.

Recommendation 2: Reforming licensing and other regulatory regimes. Where efforts are made to reform licensing and other regulatory regimes, these should be considered holistically, with systematic, standardised and active consultative processes instituted in all cases to limit unintended consequences, anticipate drivers of non-compliance and provide realistic timeframes for compliance. Where relevant, accountability gaps within decentralised or devolved political systems should be prioritised in terms of further reforms.

Establishing Inter-Agency Frameworks

Beyond weak legislation and lax licensing regimes, inadequate coordination and cooperation frameworks among domestic agencies have long been identified globally as an obstacle to tackling IUU fishing and related criminality. Indeed, creating and maintaining the institutional structures to facilitate coordination and cooperation has proven challenging across the global supply chain. In an attempt to bolster such cooperation, a common approach across the focus countries has been to set up multi-agency task forces. This is a model described as ‘an essential starting point’ to effective collaboration by the UNODC and the WWF.¹⁸⁸ Across the focus countries, experience to date has highlighted a range of obstacles encountered in such efforts – as well as, more positively, opportunities to overcome them.

186. Authors’ interviews with P4, P5, P6, private sector representatives, Bangkok, July 2018.

187. Issara Institute, ‘Eliminating Human Trafficking from the Thai Fishing Industry’, Series Paper 4, January 2018, p. 7.

188. WWF, ‘UNODC/WWF Fisheries Crime Expert Group Meeting, 24–26 February 2016’, WWF meeting report, p. 2.

While each country's architecture is unique, the mechanisms instituted to date across the focus countries can broadly be divided into two categories: high-level policy working groups and operational task forces. A multi-agency policy working group is typically a high-level committee guiding IUU fishing policy. One example is Vietnam's Task Force 689, set up in 2010 as a dedicated anti-IUU body with four participating ministries. Led by the Ministry of Agriculture and Rural Development (MARD), under which sits the Directorate of Fisheries (D-FISH), it guides implementation of Directive 689 (2010), on IUU fishing, meeting twice yearly to review progress.¹⁸⁹ Vietnam recently established another policy working group, the National Steering Committee, to assist the prime minister in ensuring that the government is fulfilling its objective to successfully combat IUU fishing.¹⁹⁰ The precise division of responsibilities between the two, however, remains unclear.

Thailand's version of a multi-agency policy working group is the Command Center for Combating Illegal Fishing (CCCIF), created in May 2015. Members include a range of agencies, including the navy and the Maritime Enforcement Coordinating Center (Thai-MECC).¹⁹¹ Active alongside CCCIF, Thai-MECC represents Thailand's effort to create a task force at the operational level. Set up in 2006 and headed by the navy, Thai-MECC coordinates all agencies charged with enforcement of regulations at sea, with IUU one of nine priorities.¹⁹² While DOF and the marine police are responsible for patrolling up to 30 nm, Thai-MECC is charged with interdicting IUU vessels in the rest of Thailand's EEZ.¹⁹³

Another operational task force exists in Indonesia's Task Force to Combat Illegal Fishing (Satgas 115), a dedicated anti-IUU body set up in 2015 as a ministerial task force within the KKP.¹⁹⁴ Satgas 115 was later upgraded to a presidential task force, incorporating members of the KKP, the navy, marine police, Bakamla (Maritime Security Agency), and the Attorney General's Office.¹⁹⁵ It has enjoyed high-level political direction under Minister Susi Pudjiastuti and the

189. VASEP, 'Directive 45/CT-TTG: On a Number of Tasks and Solutions to Remove the Warning of the European Commission Against Illegal, Unreported and Unregulated Fishing (IUU)', 2 January 2018; authors' interviews with VG7, VG8, VG9, VG10, government representatives, Hanoi, July 2018.

190. D-FISH, 'Establishment of National Steering Committee on Combating Illegal, Unreported and Unregulated (IUU) Fishing', 25 May 2019.

191. MFA, 'Highlights of Progress: Thailand's Commitment to Tackling IUU Fishing', press release, January 2017; authors' interview with TG6, government representatives, Bangkok, July 2018.

192. These bodies are the navy, marine police, Customs Department, DoF, Marine Department, and Department of Marine and Coastal Resources. See IOTC, 'Thailand National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing', p. 11; authors' interview with TG8, government representative, Bangkok, July 2018.

193. Authors' interview with TG1, government representative, Bangkok, July 2018; IOTC, 'Thailand National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing', p. 32.

194. Satgas 115, 'About Satgas', <<http://satgas115.id/>>, accessed 23 October 2019.

195. Authors' interview with IG1, government representative, Jakarta, July 2018.

navy's deputy chief of staff.¹⁹⁶ Its focus extends beyond IUU fishing to cover associated crimes taking place in parallel, with the task force thus looking to 'mainstream' understandings of IUU fishing as a convergence crime.¹⁹⁷

In Tanzania, the National Multi-Agency Task Team (NMATT), comprised seven ministries, was set up in 2015 to tackle wildlife crime, particularly ivory poaching, illegal timber trade and blast fishing, although its main focus soon became blast fishing. Since NMATT began operations, incidences of blast fishing have reportedly fallen by over 90%¹⁹⁸ – the result of a shift in enforcement focus from fishermen to the networks sourcing explosives.¹⁹⁹ In 2018, NMATT became involved in Operation *Jodari*, a public–private venture with the NGO Sea Shepherd (and supported by FISH-i Africa), which provided its 65-m offshore vessel, the *Ocean Warrior*, to patrol Tanzania's EEZ. The government provided law enforcement agents – or 'ship-riders' – through the NMATT, which included officers from the Drug Control Enforcement Agency (DCEA), the Tanzania Police Force (TPF), the Ministry of Livestock and Fisheries, the Deep Sea Fishing Authority (DSFA), Tanzanian navy (TPDF), and the Immigration Department, while Sea Shepherd provided the vessel, the crew and the fuel.²⁰⁰

South Africa, for its part, has pursued an initiative – Operation *Phakisa* – that does not fit the mould of a multi-agency taskforce, but nonetheless promotes cross-agency operations. *Phakisa*, meaning 'hurry up' in Sesotho, was created in 2014 by then President Jacob Zuma to promote cooperation among agencies and with NGOs.²⁰¹ Although not explicitly focused on IUU fishing, officials reported using *Phakisa* to coordinate joint patrols.²⁰² In the financial year 2017/18, such patrols involved the Department of Environmental Affairs, DAFF, the South African Police Service, the South African Revenue Service and the State Security Agency, among others. Resulting searches reportedly led to the confiscation of over R40.6 million (\$2.8 million), although it is not clear how much of this is related to IUU fishing.²⁰³

196. *Ibid.*

197. Husein, 'Indonesia's Fight Against Illegal, Unregulated and Unreported Fishing'.

198. World Bank, 'AFCC2 RI-South West Indian Ocean Fisheries Governance and Shared Growth Project 1 – Procurement Plan (P132123)', Implementation Status and Results Report, July 2018, <<http://documents.worldbank.org/curated/en/974881551124436877/Africa-AFRICA-P132123-AFCC2-RI-South-West-Indian-Ocean-Fisheries-Governance-and-Shared-Growth-Project-1-Procurement-Plan>>, accessed 23 October 2019.

199. Authors' interview with TZG4, government representative, Dar Es Salaam, April 2019; authors' telephone interview with N30, NGO representative, March 2019; Stop Illegal Fishing and PescaDOLUS, 'Record of The First International Symposium on FishCRIME', p. 7.

200. Stop Illegal Fishing, 'Operation Jodari'.

201. Republic of South Africa Department of Planning, Monitoring and Evaluation, 'Operation Phakisa', <<https://www.operationphakisa.gov.za/Pages/Home.aspx>>, accessed 23 October 2019.

202. Authors' interview with SAG9, government representative, Cape Town, April 2019.

203. South African Government, 'Environmental Affairs on Success of Operation Phakisa Initiative 5', 21 June 2018, <<https://www.gov.za/speeches/environmental-affairs-success-operation-phakisa-initiative-5-21-jun-2018-0000>>, accessed 23 October 2019.

Since their establishment, the record of many of these task forces has been highly positive. Taking the Tanzanian experience of Operation *Jodari* as an example, although it ended in November 2018, the collaboration was viewed by almost all interviewees as a highly effective model for enhancing cooperation and coordination.²⁰⁴ In early 2018, during its first patrol, the operation conducted nine inspections on foreign-flagged fishing vessels, resulting in the arrest of three vessels for various IUU and human rights violations.²⁰⁵ The Chinese-flagged *Tai Hong 1* was found to be carrying many more shark fins than bodies, illegal under Tanzanian law, as well as keeping its crew in cramped and squalid conditions. The Malaysian-flagged *Buah Naga 1* was also illegally shark-finning, and an unlicensed firearm was found onboard – reportedly used by the captain to threaten the crew. The *Swabir Jamil* was also detained for shark-finning and fishing without a licence. This first patrol led to many industrial vessels fleeing the Tanzanian EEZ – itself a violation, as vessels are supposed to come to port before leaving the EEZ – and so 19 of the 24 longliners licensed to fish in the EEZ were fined.²⁰⁶ An interviewee familiar with the operation described this as the ‘end of industrial-scale fishing in Tanzania’.²⁰⁷ In Indonesia, the results of Satgas 115 were held up as having been highly successful at an operational level, with the task force playing a part in the arrest of many of the 488 vessels sunk for IUU fishing between November 2014 and August 2018.²⁰⁸

In the course of the development of these structures, however, a range of obstacles has been encountered. These obstacles have been seen in at least three distinct areas: overlapping mandates; unsuitable location of structures within government; and reliance on external parties for resources. In terms of overlapping mandates, experience across the focus countries demonstrates the potential obstacle this can pose in terms of duplication of effort. In Tanzania, for example, NMATT began with a broad environmental mandate that somewhat overlapped with that of another task force, the National and Transnational Serious Crimes Investigation Unit (NTSCIU), which also covered wildlife crime.²⁰⁹ This duplication created a range of organisational issues, invoking the need for deconfliction and coordination at a national level, which was ultimately achieved, with NMATT’s subsequent shift in focus to fisheries crime allowing for such deconfliction.²¹⁰ However, time and resources could have been saved by anticipating such issues in advance.

204. Authors’ interview with N32, NGO representative, Dar Es Salaam, April 2019.

205. Sea Shepherd, ‘Sea Shepherd Launches Operation Jodari with Tanzania, Makes First Three Arrests’, 5 February 2018; Stop Illegal Fishing, ‘Operation Jodari’.

206. Stop Illegal Fishing, ‘Operation Jodari’.

207. Authors’ telephone interview with N30, NGO representative, March 2019.

208. Presentation at roundtable, ‘Countering the Threats of IUU Fishing’, 20 July 2018; Santosa, ‘Combating IUU Fishing and Fisheries Crime’.

209. *Africa Geographic*, ‘Tanzania’s Task Force Tightens Noose on International Traffickers’, 30 June 2017, <<https://africageographic.com/blog/tanzania-task-force-tightens-noose-traffickers/>>, accessed 23 October 2019.

210. Authors’ interview with N32, NGO representative, Dar Es Salaam, April 2019; Stop Illegal Fishing and PescaDOLUS, ‘Record of The First International Symposium on FishCRIME’.

Second, a set of further obstacles witnessed across the focus countries demonstrate the importance of locating initiatives in the ‘right part of government’, with adequate authority to command teams from multiple agencies. Interviewees again described this as a key challenge faced by NMATT, which was originally headed by the Inspector General of Police. Although powerful, the Inspector General was unable in practice to exert authority over other institutions, in order to commandeer the assets required for operations.²¹¹ This limited the task force’s impact: only the relocation of the NMATT secretariat to the Vice President’s office endowed it with the authority to run operations effectively. This mirrors Indonesia’s upgrading of Satgas 115 from a ministerial to a presidential task force – providing the authority to requisition assets as required. However, it should be noted that initial political support for an initiative must be transformed into long-term institutional backing; otherwise, such initiatives will be at the mercy of the political climate of the day.

Third, a reliance on external partners or member institutions for consistent and timely access to resources – funding, personnel and physical assets – has been a challenge in a number of cases. Both Satgas 115 and NMATT, for example, rely on member contributions, while the latter also relies heavily on donor funding. Although in Indonesia, the Satgas 115 leadership has been able to persuade members to provide resources in a timely fashion, this contribution-led model has at times not functioned efficiently in Tanzania. Notably, NMATT has struggled to consistently access resources in a timely and consistent manner. This situation has been exacerbated post-Operation *Jodari*, with the ending of an initiative that was itself reliant on an external platform – Sea Shepherd’s *Ocean Warrior*.²¹² Opportunities to avoid such issues exist where task forces can be granted their own dedicated resources to use at their discretion – as in the case of Thai-MECC, which has its own assets, albeit to serve priorities more diffuse than solely IUU.

Recommendation 3: Designing multi-agency structures. When designing multi-agency structures to respond to large-scale IUU fishing, those responsible should ensure, at design phase, that these are situated in the appropriate part of government to ensure authority over all constituent parts, do not duplicate existing initiatives, and are granted means to reliably access the assets and resources they need.

Engaging in Cross-Border Cooperative Frameworks

Moving beyond domestic inter-agency coordination, a final key challenge in efforts to design frameworks to tackle large-scale IUU fishing and associated crimes relates to the need to ensure effective cross-border collaboration. Indeed, where large-scale IUU fishing involves criminal networks capable of operating across multiple jurisdictions, national action can only go so far. To address this, the focus countries have made a range of efforts to enter into and enhance cross-border cooperative frameworks. This section now turns to their record in doing so.

211. Authors’ interview with TZG4, government representative, Dar Es Salaam, April 2019.

212. *Ibid.*

In looking to bolster cross-border collaboration, all focus countries have recognised that a first essential step involves ratification of relevant international instruments. Among the most important is the 2009 Port State Measures Agreement (PSMA), which governs use of ports by foreign vessels while encouraging information sharing,²¹³ and the 2012 Cape Town Agreement, which sets minimum requirements for the safety of fishing vessels longer than 24 m that operate on the high seas and calls for harmonised fisheries, labour and safety inspections.²¹⁴ Thailand, Indonesia and South Africa have all ratified the PSMA. Vietnam, under pressure from its yellow card, also did so in January 2019, although there is concern that its amended fisheries law fails to comply with the agreement.²¹⁵ Tanzania is the only focus country yet to ratify the PSMA. This is due to the fact that fishing in the deep sea/EEZ is regulated by the DSFA as a Union matter – that is, governed jointly by both mainland Tanzania and Zanzibar – whilst territorial waters remain separate responsibilities.²¹⁶ Each government has its own fisheries department, responsible for ports and licensing, and each parliament must approve the PSMA before proceeding, resulting in delays.

The focus countries' record of ratification is patchier in relation to other international agreements. For example, South Africa is the only one of the focus countries to date to have ratified the Cape Town Agreement. Similarly, ratification of the most relevant instruments on modern slavery in the fisheries sector remains inconsistent. These instruments include the ILO's Work in Fishing Convention 2007 (No. 188) and Forced Labour Protocol 2014.²¹⁷ The latter reinforces the international legal framework to combat forced labour, while the former aims to improve occupational safety – ensuring, for example, that fishers receive workers' agreements. Convention No. 188 entered into force in 2017, although only two of the focus countries, Thailand and South Africa, have ratified it to date (the latter becoming the first country to detain a vessel under the Convention in July 2018).²¹⁸ Thailand, for its part, is the only SEA country to have ratified the Forced Labour Protocol.²¹⁹ This inconsistency reflects a lack of international pressure to ratify key agreements, and constitutes a major gap in efforts to respond to large-scale IUU fishing in a consistent cross-border fashion.

213. FAO, *The State of World Fisheries and Aquaculture 2018*, pp. 98–99.

214. Peter Horn, 'The Cape Town Agreement Explained', Issue Brief, The Pew Charitable Trusts, 5 October 2018.

215. Ojamaa, 'Research for PECH Committee – Fisheries in Vietnam', p. 31.

216. FAO, 'Fisheries in the ESA-IO Region: Profile and Trends: Country Review 2014: Tanzania', 2014, <<http://www.fao.org/3/a-br800e.pdf>>, accessed 23 October 2019; FISH-i Africa, 'Zanzibar Hosts Port State Measures Agreement (PSMA) Stakeholder Consultation', 24 October 2017.

217. Protocol of 2014 to the Forced Labour Convention, 1930, <http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:P029>, accessed 23 October 2019.

218. ILO, 'First Fishing Vessel Detained Under ILO Fishing Convention', 17 July 2018; ILO, 'Ratifications of C188 – Work in Fishing Convention, 2007 (No. 188)', <https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO::P11300_INSTRUMENT_id:312333>, accessed 23 October 2019.

219. ILO, 'Ratifications of P029 – Protocol of 2014 to the Forced Labour Convention, 1930', <https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:3174672:NO>, accessed 23 October 2019.

Beyond international legal frameworks, the focus countries have, however, pursued bilateral agreements as a means to coordinate internationally in response to IUU fishing. There is insufficient space in this report to review each in turn, but many examples have regional impact. Indonesia, for example, has signed bilateral agreements on combating IUU fishing with Australia (2009), Vietnam (2010), Malaysia (2012), Papua New Guinea (2015), and Timor-Leste (2016), allowing for improved information sharing, training and, in some cases, coordinated patrols.²²⁰

At a regional level, meanwhile, the focus countries have embraced further frameworks for cooperation. Vietnam, Thailand and Indonesia have done so through the Association of Southeast Asian Nations (ASEAN) – which made combating IUU fishing a priority in 2017, issuing a Regional Forum Statement on Cooperation to Prevent, Deter and Eliminate IUU Fishing.²²¹ This built on earlier efforts: in 2009, ASEAN recognised IUU fishing as a ‘non-traditional security threat’, calling on states to implement a Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing (RPOA-IUU).²²² In 2015, meanwhile, ASEAN developed guidelines to prevent IUU products from entering the supply chain, in partnership with the Southeast Asian Fisheries Development Center (SEAFDEC), a regional non-binding body whose secretariat acts as the focal point for a Council of Directors drawn from member-state fisheries ministers.²²³ ASEAN is now actively exploring the possibility of establishing an IUU task force similar in style to FISH-i Africa, aimed at increasing information sharing and communication between the relevant law enforcement and government departments of its members.²²⁴

In the WIO, meanwhile, Tanzania and South Africa have embraced regional frameworks via their membership of the AU. Here, a range of initiatives of relevance to the fight against large-scale IUU fishing exist. For example, the AU’s adoption of the 2050 Africa’s Integrated

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220. KKP, ‘Indonesia National Action Plan to Prevent and to Combat Illegal, Unreported, and Unregulated Fishing’, 2012, p. 28, <<http://extwprlegs1.fao.org/docs/pdf/ins165159.pdf>>, accessed 23 October 2019; Indonesian Presidential Task Force to Combat Illegal Fishing, ‘Combatting Fisheries Crimes in Indonesia’, 2017.
221. Centre for International Law, ‘ASEAN Regional Forum Statement on Cooperation to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing’, 2017, <<https://cil.nus.edu.sg/wp-content/uploads/2019/02/2017-ARF-Stm-IUU.pdf>>, accessed 23 October 2019.
222. ASEAN Secretariat, *ASEAN Political-Security Community Blueprint* (Jakarta: ASEAN Secretariat, 2009), p. 13; Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing (RPOA-IUU), ‘Who We Are’, <<http://www.rpoaiuu.org/>>, accessed 23 October 2019. The RPOA-IUU has been signed by 11 fisheries ministers and four regional organisations.
223. Mazalina Ali et al. (eds), *ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain* (Kuala Terengganu, Malaysia: Southeast Asian Fisheries Development Center and Marine Fisheries Resources Development and Management Department, 2015), <<http://www.seafdec.org/download/asean-guidelines-for-preventing-the-entry-of-fish-and-fishery-products-from-iuu-fishing-activities-into-the-supply-chain/>>, accessed 23 October 2019.
224. ASEAN, ‘Joint Communique of the 52nd ASEAN Foreign Ministers’ Meeting, Bangkok, 31 July 2019’.

Maritime Strategy in 2014²²⁵ – embedded in the AU’s Agenda 2063 a year later – encourages information sharing and coordination of member-state policies in areas such as marine law enforcement. Another of the Strategy’s goals is to establish a ‘combined exclusive maritime zone of Africa’, maritime border disputes having undermined states’ willingness to implement the Strategy, and a dispute-resolution mechanism having not been agreed on.²²⁶ Other regional bodies working on IUU fishing to which Tanzania and/or South Africa adhere include: the Southern African Development Community (SADC);²²⁷ Indian Ocean Rim Association;²²⁸ South West Indian Ocean Fisheries Commission (SWIOFC);²²⁹ Indian Ocean Commission (IOC);²³⁰ Nairobi Convention;²³¹ and amended DCoC+.²³²

Despite their adherence to these frameworks, however, a lack of cross-border engagement in practice has often undermined the response across the focus countries.²³³ In 2012, for example, SmartFish detailed limited cooperation between Tanzania’s DSFA and counterparts in Kenya,²³⁴ while uneven engagement with regional organisations by members in practice has remained a key challenge.²³⁵ However, in the case of Tanzania, recent progress has been made through FISH-i Africa – a pioneering initiative allowing national MCS officers to build personal relationships and to quickly share information on suspicious activity.²³⁶ FISH-i Africa has also made significant

225. AU, ‘2050 Africa’s Integrated Maritime Strategy (2050 Aim Strategy)’, 2012, <https://www.au.int/web/sites/default/files/documents/30929-doc-2050_aim_strategy_eng_0.pdf>, accessed 23 October 2019.

226. Eric Pichon, ‘The African Union’s Blue Strategy’, European Parliamentary Research Service, March 2019.

227. Southern African Development Community, ‘Fisheries’, <<https://www.sadc.int/themes/natural-resources/fisheries/>>, accessed 23 October 2019.

228. Indian Ocean Rim Association, ‘Fisheries Management’, <<https://www.iora.int/en/priorities-focus-areas/fisheries-management>>, accessed 23 October 2019.

229. FAO, ‘Regional Fishery Bodies Summary Descriptions: Southwest Indian Ocean Fisheries Commission (SWIOFC)’, <<http://www.fao.org/fishery/rfb/swiofc/en>>, accessed 23 October 2019.

230. Stop Illegal Fishing, ‘Indian Ocean Commission’, <<https://stopillegalfishing.com/partners/indian-ocean-commission/>>, accessed 23 October 2019.

231. UN Environment Programme, ‘Vision: A Prosperous Western Indian Ocean Region with Healthy Rivers, Coasts and Oceans’, p. 3, <https://wedocs.unep.org/bitstream/handle/20.500.11822/11328/nairobi_convention_final_print_6sep.pdf?sequence=1&isAllowed=y>, accessed 23 October 2019.

232. IMO, ‘The Jeddah Amendment to the Djibouti Code of Conduct 2017’, <<http://www.imo.org/en/OurWork/Security/PIU/Pages/DCoC.aspx>>, accessed 23 October 2019.

233. Global Initiative Against Transnational Organized Crime, ‘Untangling Organized Crime and Terrorism in East Africa’, 8 August 2018.

234. Jim Anderson, ‘Options to Reduce IUU Fishing in Kenya, Tanzania, Uganda and Zanzibar’, SmartFish, 2012, p. 26.

235. Roundtable contribution by N38, NGO representative, Cape Town, April 2019.

236. FISH-i Africa, ‘How We Work’, <<https://fish-i-africa.org/what-we-do/how-we-work/>>, accessed 23 October 2019.

progress in building cross-border coordination by providing strategic, technical and operational advice to members.

In SEA, although ASEAN members and extra-regional partners interact on IUU fishing at working and summit level, operational progress has been incremental. This is due in part to an approach based on consensus-building among members and non-binding decision-making mechanisms.²³⁷ Dubbed 'The ASEAN Way', this is often a source of frustration, delaying progress on critical issues.²³⁸

More fundamentally, however, progress at ASEAN level has been slowed by a complex geopolitical backdrop, whereby member states conduct IUU fishing as part of strategic calculations over contested maritime territory.²³⁹ Indeed, while under the UN Convention on the Law of the Sea, states may enforce fisheries laws in their own EEZ,²⁴⁰ this is complicated in SEA by disputed maritime boundaries, creating confusion over jurisdiction of fishing grounds. A key source of tension involves China's claim to all maritime territory within the so-called 'Nine-Dash Line', comprising roughly 90% of the South China Sea. China continues to militarise artificially constructed islands to reinforce this claim, despite a 2016 Permanent Court of Arbitration final ruling against it.²⁴¹

In particular, the use of fishing vessels to stake out maritime claims poses a critical barrier to regional responses to IUU fishing in SEA. To understand this obstacle, a brief overview of some of the current geopolitical challenges involved is required. Notably, both China and Vietnam have been observed using fishing fleets as 'maritime militia' to support geopolitical objectives.²⁴² China's People's Armed Forces Maritime Militia has been identified by the Pentagon as 'the only government-sanctioned maritime militia in the world' whereby 'militia units organise around town, villages, urban sub-districts, and enterprises' and play 'a major role in coercive activities to achieve China's political goals without fighting'.²⁴³ In Vietnam, a 2018 EU briefing note reported that the government 'encourages Vietnam's fishing fleet to sail out into disputed waters and provide a maritime-defence function'.²⁴⁴ In 2014, Decree 67 created a \$400-million

237. Jörn Dosch and Christopher M Dent, *The Asia-Pacific, Regionalism and the Global System* (Cheltenham: Edward Elgar Publishing, 2012), p. 5.

238. Logan Masilamani and Jimmy Peterson, 'The "ASEAN Way": The Structural Underpinnings of Constructive Engagement', *Foreign Policy Journal*, 15 October 2014, <<https://www.foreignpolicyjournal.com/2014/10/15/the-asean-way-the-structural-underpinnings-of-constructive-engagement/>>, accessed 23 October 2019.

239. Authors' interview with A3, academic and government representative, Jakarta, 19 July 2018.

240. UN Convention on the Law of the Sea, Article 56, Part V.

241. Permanent Court of Arbitration, 'PCA Press Release: The South China Sea Arbitration (The Republic of the Philippines v. The People's Republic of China)', 12 July 2016.

242. *Japan Times*, 'Military Control of Chinese Coast Guard Adds Edge to Sea Disputes', 27 March 2018.

243. US Office of the Secretary of Defense, 'Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2018', p. 72.

244. Ojamaa, 'Research for PECH Committee – Fisheries in Vietnam', p. 21.

preferential loan to equip Vietnamese fishers with modern steel-hulled boats, in direct response to the wooden boats of its maritime militia being outmatched by China's fleet in a stand-off over China's HD-981 deep-water oil rig.²⁴⁵

Clashes between the two have become increasingly common. Beijing's assertive behaviour is held by Vietnam to deplete its fishing grounds, forcing fishers closer to other countries' EEZs.²⁴⁶ Indeed, Vietnamese vessels are regularly arrested in neighbouring EEZs, including Indonesia's.²⁴⁷ Yet defining such incursions is complicated by a further delimitation dispute between the two.²⁴⁸ The political will to solve the dispute is undermined by ongoing tension: in April 2019 the Vietnamese coast guard was accused of ramming an Indonesian patrol vessel to prevent the arrest of a suspected IUU vessel.²⁴⁹

The salience of these issues in hindering joint responses to IUU fishing is clear. Notably, the instrumentalisation of fishing activity to further maritime claims has a significant impact on states' willingness to collaborate. Faced with this obstacle, interviewees suggested that progress could be best achieved through engagement at sub-regional level, through bilateral or sub-regional groupings, which could be expanded as appropriate stepping stones to future regional action.²⁵⁰ A good example is the so-called 'MoU box', the memorandum of understanding signed between Australia and Indonesia that recognised the rights of access for traditional Indonesian fishers in the waters north of Australia, within its EEZ.²⁵¹

This is not to say that no initiatives should be supported at regional level. Indeed, further progress at this level is needed in both SEA and the WIO, and at continental level for the AU's AIM Strategy to be fully implemented. For this to happen, member states will need support for a host of measures, including the strengthening of licensing regimes and building of capacity to conduct sea patrols.²⁵² At a global level, meanwhile, the international community must prioritise greater coordination to avoid duplication when supporting cross-border initiatives.²⁵³

245. *Ibid.*

246. *Straits Times*, 'Vietnam Says China "Sank" Fishing Boat in South China Sea', 12 July 2016; authors' interview with VG6, government representative, Hanoi, July 2018.

247. Radio Free Asia, 'Indonesia to Sink More Foreign Boats Amid New Maritime Tensions with Vietnam', 29 April 2019, <<https://www.rfa.org/english/news/vietnam/indonesia-boats-04292019170113.html>>, accessed 23 October 2019.

248. Victor Prescott and Clive Schofield, 'Undelimited Maritime Boundaries of the Asian Rim in the Pacific Ocean', *Maritime Briefing* (Vol. 3, No. 1, 2001), p. 45.

249. *Asia Times*, 'Jakarta Fired up Over Clash With Vietnam Vessels', 29 April 2019.

250. Authors' interview with O17, representative of regional organisation, Bangkok, July 2018.

251. Australia Department of Agriculture, 'Indonesia – Australia Fisheries Cooperation', last reviewed 7 June 2016, <<http://www.agriculture.gov.au/fisheries/international/cooperation/indonesia>>, accessed 18 August 2019.

252. AU, '2050 Africa's Integrated Maritime Security Strategy', p. 18.

253. Stop Illegal Fishing and PescaDOLUS, 'Record of the First International Symposium on FishCRIME'.

Recommendation 4: Bolstering cross-border cooperation. When seeking to bolster cross-border cooperation, immediate priority should be placed on encouraging ratification of all international instruments related to large-scale IUU fishing and associated criminal activity. At a regional level, where obstacles to coordination persist, alternative approaches – including support for bilateral or sub-regional groupings – should be pursued as stepping stones to future regional action.

IV. Responding to the Threat: Monitoring and Enforcement

WHILE APPROPRIATE GOVERNANCE frameworks are essential to defeating IUU fishing, laws and structures are essentially useless if not used effectively in practice. As such, all affected countries globally need an effective monitoring and enforcement regime to detect, interdict, investigate and prosecute those engaged in IUU fishing and associated crimes. In recent years, all focus countries have enhanced aspects of these regimes. This chapter analyses experiences to date in two key areas: strengthening detection and interdiction; and bolstering investigation and prosecution. In each case, the chapter considers challenges faced across the focus countries and explores potential ways forward.

Strengthening Detection and Interdiction

Numerous actors along the supply chain can play a role in detecting IUU fishing and related criminality, from officials at fisheries monitoring centres (FMCs) to port inspectors, to customs and immigration officials conducting checks on crew, among others. These actors have a range of tools and methods available to them to disrupt IUU operators. This section focuses on experience to date in three key areas: use of vessel monitoring technology; use of air and sea patrols; and use of port inspections, which together comprise essential parts of countries' broader MCS regimes. Across the focus countries, efforts have been made to bolster each of these regimes, which are now considered briefly in turn.

Vessel Monitoring Technology

Technology-based surveillance systems are used in all focus countries, to varying levels of success. The most sophisticated was observed in Thailand, where all Thai vessels over 30 GT and all those with an overseas fishing licence are legally required to install and run vessel monitoring systems (VMS).²⁵⁴ A 24/7 Department of Fisheries (DOF)-run FMC monitors VMS and other tracking data for red flags such as indicators of unauthorised or unmonitored transshipment at sea.²⁵⁵ If a signal is lost, with no response in four hours, the FMC contacts Thai-MECC, which

254. Adisorn Promthep, 'Notification of the Department of Fisheries Determining Forms of Fishing Logbook, Period of Time and Electronic Reporting for Oversea Fishing Vessel B.E. 2560 (2017)', February 2017, <<http://extwprlegs1.fao.org/docs/pdf/tha169815.pdf>>, accessed 23 October 2019; US Department of State, '2017 Trafficking in Persons Report – Thailand', <<https://www.refworld.org/docid/5959ec41a.html>>, accessed 23 October 2019.

255. MFA, 'Thailand's Effective Fleet Management and the Deployment of Police Officers at the Fishing Monitoring Center', press release, 8 February 2018. See also, IOTC, 'Thailand National

decides whether to send a patrol boat.²⁵⁶ In rescinding Thailand's yellow card in January 2019, the EU cited the country's success in achieving full VMS coverage for its industrial fleet.²⁵⁷

In other countries, lack of coverage has proved a challenge when instituting surveillance systems. In Vietnam, for example, two systems are in operation: the VX-1700, a high-frequency radio-based system; and the Movimar satellite-based system.²⁵⁸ Vietnam's Fisheries Law of 2017 requires all fishing vessels over 15 m to use satellite positioning equipment.²⁵⁹ Yet, in 2018, the Vietnam Association of Seafood Exporters and Producers (VASEP) noted that only around 3,000 of Vietnam's 110,000 fishing vessels (of which around 33,000 are offshore vessels) were equipped with Movimar.²⁶⁰

Meanwhile, no system, even when fully implemented, is infallible. In the case of Vietnam, the VX-1700 system can reportedly suffer from poor signal and, as a terrestrial system, is vulnerable during natural disasters.²⁶¹ Moreover, VMS only monitors licensed vessels and some FMCs only have access to VMS data within their EEZ, potentially making them blind to vessels approaching from the high seas. AIS, on the other hand, can be manipulated and even turned off, as reported across the focus countries.²⁶² When AIS is turned off, there is little authorities can do, with little deterrent to such behaviour. Stop Illegal Fishing notes that lack of compliance with flag-state

Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing'; MFA, 'Highlights of Progress: Thailand's Commitment to Combatting IUU Fishing', p. 2.

256. Authors' interview with TG1, government representative, Bangkok, July 2018; Thai Embassy (Poland), 'Thailand's Fisheries Reform: Progress and Way Forward in the Fight Against IUU Fishing and Forced Labour', 14 March 2016.
257. European Commission, 'Questions and Answers – Illegal, Unreported and Unregulated (IUU) Fishing in General and in Thailand', 8 January 2019.
258. CLS, 'MOVIMAR: CLS Helps Vietnamese Government Managing Fishing Resources Sustainably', <<https://fisheries.groupcls.com/movimar-project-cls-helps-vietnamese-government-managing-fishing-resources-sustainably/>>, accessed 1 November 2019; authors' interview with C3, independent consultant, Hanoi, July 2018.
259. Ojamaa, 'Research for PECH Committee – Fisheries in Vietnam', p. 21; Sampa Kundu, 'How Vietnam Plans to Prevent Illegal, Unreported and Unregulated Fishing', *The Diplomat*, 24 May 2019.
260. Ministry of Agriculture and Rural Development (MARD), Directorate of Fisheries (D-FISH), 'Offshore Fishing Vessels will be Fitted With Tracking Equipment Before October, 2018', 8 January 2018, <<https://tongcuthuysan.gov.vn/en-us/capture-fisheries/doc-tin/011192/2018-08-17/offshore-fishing-vessels-willbe-fitted-with-tracking-equipment-before-october-2018>>, accessed 23 October 2019.
261. Authors' interview with C3, independent consultant, Hanoi, July 2018.
262. Authors' telephone interview with N13, N18, NGO representatives, June 2018; authors' interview with C3, consultant on Vietnamese fisheries, Hanoi, July 2018; authors' interview with TZG2, government representative, Dar Es Salaam, April 2019; authors' interview with C10, independent consultant on fisheries, Cape Town, April 2019.

AIS mandates is ‘generally dealt with administratively and fines, when imposed, are low’.²⁶³ Similarly, many IUU vessels may not even have AIS or VMS transmitters installed. In one study carried out by the Indonesian government, of the 363 fishing vessels apprehended between 2014 and 2017, only five had AIS equipment on board.²⁶⁴

Mindful of these challenges, across the focus countries, various efforts have been made to further improve surveillance technology. Under Operation *Phakisa*, for example, South Africa’s Council for Science and Industrial Research is developing a new ‘National Oceans and Coastal Information Management System’, to improve maritime domain awareness (MDA). The system will use all available inputs, including VMS and satellite, coastal and aperture radar, to enhance visibility of the maritime domain.²⁶⁵ In 2017, meanwhile, Indonesia entered a partnership with NGO Global Fishing Watch to make VMS data on all its flagged vessels public – the first country to do so globally, enabling researchers to better understand IUU activity.²⁶⁶

The latter example points to opportunities highlighted by the research to strengthen these efforts, where private and NGO sectors are able to contribute to enhancing surveillance technology. In 2018, for example, the Overseas Development Institute suggested that private big-data platforms could be ‘extremely useful in addressing IUU fishing ... in the waters of developing countries’, but noted that the scope of databases may limit application – covering only existing data in the system.²⁶⁷ Mindful of this potential, a collaboration between the Center for Strategic and International Studies and technology company Vulcan, Inc. has shown how diverse technologies – such as Synthetic Aperture Radar and Visible Infrared Imaging Radiometer Suite, which detects light sources at sea – can detect vessels that do not transmit AIS or VMS.²⁶⁸

Yet a range of obstacles exist in this regard. Crucially, these technologies are expensive and typically require specialist expertise for analysis. Meanwhile, despite the short-term payoffs, use of such third-party systems does little to build long-term capacity. Indeed, sophisticated technology – often provided by donors – is useless without the human resources to use and maintain it. Similarly, although AIS is one of the least expensive systems, Stop Illegal Fishing stresses the need to consider the ‘software and analytical capacity ... required to translate raw

263. Authors’ interview with C13, consultant, Cape Town, April 2019; Stop Illegal Fishing, ‘The Potential Use of AIS as a Fisheries Monitoring Tool’, 2018, p. 8.

264. Aulia Riza Farhan et al., ‘Calculation Model of Economic Losses Due To Illegal Fishing Activities In Indonesian Territorial Waters’, Conservation Strategy Fund, Fellowship Report, December 2018, p. 10.

265. Authors’ interview with SAG2, Pretoria, April 2019.

266. Global Fishing Watch, ‘Joint Statement from the Republic of Indonesia and Global Fishing Watch, Inc.’, June 2017.

267. Miren Gutierrez et al., ‘Fishing for Data: The Role of Private Data Platforms in Addressing Illegal, Unreported and Unregulated Fishing and Overfishing’, Overseas Development Institute (ODI), January 2018, p. 3.

268. Gregory B Poling, ‘Illuminating the South China Sea’s Dark Fishing Fleets’, Center for Strategic and International Studies, 9 January 2019.

AIS data into usable intelligence [as] an integral cost ... Without [these] human expertise and software tools ... AIS will have minimal utility to MCS operations'.²⁶⁹

Recommendation 5: Strengthening surveillance systems. When instituting new and strengthening existing surveillance systems, sustainability must be a central consideration, requiring realistic long-term planning around ongoing running costs, maintenance and the development of human capacity to sustainably use and tangibly benefit from technological solutions.

Air and Sea Patrols

Surveillance technology is but one aspect of a broader MCS system. As one interviewee put it, 'MCS is an integrated process', with surveillance technology most effective when combined with tools like air and vessel patrols.²⁷⁰ Yet air capability in the focus countries was found to be limited, with most MCS departments reliant on navy or air force resources. In Tanzania, for example, the DSFA occasionally collaborates with the Tanzania People's Defence Force and other agencies for surveillance, but more often charters planes through a private company; from 2013 to July 2018, the DSFA reportedly conducted 392 hours of air patrols, with 10 vessels sighted.²⁷¹

Multi-agency task forces are one way to put such collaboration on a more sustainable footing. In Thailand and Indonesia, for example, Thai-MECC and Satgas 115 have access to the aerial assets of each country's navy.²⁷² Yet even this is no guarantee of access in the face of fiscal limitations: such patrols are expensive, and reliant on resourcing in agencies with much broader mandates. As such, UAVs or 'drones' have become increasingly popular means to conduct aerial surveillance. Since 2018, for example, Thailand has used UAVs to run intelligence-led 'suppression' activities and 'deterrent' surveillance patrols in high-risk areas.²⁷³ However, concerns centre again on the human capacity to maintain these systems, and on longer-term running costs.²⁷⁴

269. Stop Illegal Fishing, 'The Potential Use of AIS as a Fisheries Monitoring Tool', p. 17.

270. Authors' interview with C13, consultant, Cape Town, April 2019; Stop Illegal Fishing, 'The Potential Use of AIS as a Fisheries Monitoring Tool', p. 4; Standing, 'Criminality in Africa's Fishing Industry', pp. 2–3.

271. Christian Alphonse Nzowa, 'Compliance and Enforcement for the Exclusive Economic Zone Fisheries Management in the United Republic of Tanzania', World Maritime University Dissertations, No. 682, 2018, p. 52.

272. Authors' interview with TG6, government representative, Bangkok, 5 July 2018; Lyle J Morris and Giacomo Persi Paoli, *A Preliminary Assessment of Indonesia's Maritime Security Threats and Capabilities* (Santa Monica, CA: RAND Corporation, 2018), p. 40.

273. MFA, 'Thailand to use Unmanned Aerial Vehicles to Monitor Illegal Fishing', press release, 19 June 2018, <<http://www.mfa.go.th/main/en/news3/6886/90692-Thailand-to-use-Unmanned-Aerial-Vehicles-to-Monito.html>>, accessed 23 October 2019; authors' interview with TG6, government representative, Bangkok, July 2018.

274. Authors' interview with C13, consultant, Cape Town, April 2019.

Complementing air surveillance, sea patrols are another essential tool in interdicting IUU vessels. Again, a wide variety in resources and capability exists across the focus countries. In SEA, Thailand, Vietnam and Indonesia reportedly possess large numbers of vessels: Thailand's DOF reportedly has at least 60 available, while the navy has five offshore patrol vessels.²⁷⁵ Vietnam's Fisheries Resources Surveillance agency has 92 vessels operating in the EEZ, although only eight reportedly have engines over 500 CV that are able to monitor fishing beyond the EEZ.²⁷⁶ In Indonesia, Satgas 115 has around 50 vessels available to it – on request – and the navy around 236.²⁷⁷ Despite this, interviewees reported that coverage remained an issue, especially across Indonesia's expansive EEZ.²⁷⁸

Of the WIO focus countries, South Africa has the most advanced sea patrol capability. DAFF has three inshore and one offshore patrol vessel, the 80-m *Sarah Bartaan*.²⁷⁹ However, as in many other countries, the government has struggled to keep these vessels operational, partly due to budget limitations, but also as a result of corruption involved in the award of maintenance contracts, which led to the vessels being out of action between 2012 and 2014.²⁸⁰ For its part, Tanzania was found to have few deployable sea patrol assets, with only the Tanzanian navy possessing offshore capability, and even this capability being limited by concerns about fuel and supplies.

Yet Tanzania has shown that improving offshore patrol capability need not mean procuring expensive new patrol vessels. From January to June 2018, through Operation *Jodari*, the Tanzanian government used an offshore patrol vessel owned and run by the NGO Sea Shepherd – but with Tanzanian law enforcement on board – in order to control fishing vessel operations in its EEZ. This same partnership model has been used by Sea Shepherd in other countries with limited patrolling capabilities, including Liberia, Gabon, and São Tomé and Príncipe.²⁸¹

Whatever the assets available, the expensive nature of air and sea patrols raises the importance of intelligence-led targeting. Thailand was found to have the most sophisticated system in this regard, based around a data-driven, risk-based approach. In line with this, all Thai-registered vessels are assigned a formal risk level: those with a high likelihood of engaging in IUU fishing

275. Ganapathiraju Pramod, 'Global Evaluation of Fisheries Monitoring Control and Surveillance in 84 Countries: Thailand – Country Report', *IUU Risk Intelligence*, April 2018.

276. Ojamaa, 'Research for PECH Committee – Fisheries in Vietnam'.

277. Morris and Paoli, *A Preliminary Assessment of Indonesia's Maritime Security Threats and Capabilities*, p. 52.

278. Authors' interview with IG2, government representative, Jakarta, 18 July 2018.

279. DAFF, 'Monitoring Control and Surveillance (MCS)', <<https://www.daff.gov.za/daffweb3/Branches/Fisheries-Management/Monitoring-Control-and-Surveillance/FISHPVESSELS>>, accessed 23 October 2019.

280. Public Prosecutor South Africa, 'Docked Vessels', Report No. 21 of 2013/14, December 2013; Hanlie Gouws, 'All Fisheries Dept Vessels Finally Back at Sea', *News24*, 29 July 2016.

281. Sea Shepherd, 'What is Sea Shepherd Doing?', <<https://seashepherd.org/campaigns/iuu-fishing-africa/what-is-sea-shepherd-doing/>>, accessed 23 October 2019.

are designated ‘urgent targets’ for inspection, while lower-risk vessels are deprioritised.²⁸² From May 2015 to January 2016, 8,398 fishing vessels were inspected at sea, with 430 instances of IUU fishing or other infringements uncovered.²⁸³ This risk-based approach also incentivises compliance among operators: if a vessel is moved to a lower-risk category, it is less likely to be inspected, saving time and money.

Across the focus countries more broadly, interviewees noted that external support can be of critical operational value in supporting such targeting. Such support can help to ensure that targeting is informed by cross-border data collection, analysis and sharing – a crucial aspect of successful MCS. Mindful of this, opportunities were identified to make better use of existing law enforcement databases and information-sharing platforms operated by UNODC, Interpol and the World Customs Union.²⁸⁴ Further opportunities were identified in initiatives such as FISH-i Africa – which can be crucial in connecting MCS officers at regional level – as well as efforts by SADC to fill gaps in the regional MDA architecture. The latter include the establishment of regional information fusion centres, and a Regional Fisheries Monitoring Control and Surveillance Coordination Centre in Mozambique.²⁸⁵

Some interviewees suggested that joint data analysis and sharing could be further supported through the creation of a regional coastguard. This seems far off, however: in SEA, the proposal for an ASEAN Coast Guard Forum – to ensure cooperation and coordination among ASEAN coast guards and maritime law enforcement agencies – was put forward in 2014, but has seen slow progress since, and there appears little appetite for a proactive regional enforcement body.²⁸⁶ Prospects also seem remote in the WIO, with Kenya only recently establishing its own coast guard.²⁸⁷

In this context, the research highlighted opportunities for external actors to support joint patrols and training exercises – both table-top and tactical at sea. However, it is clear that initiatives must be locally driven by countries in the region to ensure ownership and build on existing levels of trust so as to develop initiatives that involve palatable levels of information sharing and exchange. In the past, in the WIO region, the EU has offered table-top exercises for maritime

282. Authors’ interview with TG8, government representative, Bangkok, 6 July 2018.

283. Authors’ interview with TG1 and TG8, government representative, Bangkok, 5-6 July 2018; Thai Embassy (Poland), ‘Thailand’s Fisheries Reform: Progress and Way Forward in the Fight Against IUU Fishing and Forced Labour’.

284. WWF, ‘UNODC/WWF Fisheries Crime Expert Group Meeting’, p. 13.

285. Authors’ interview with G17, representative of diplomatic mission, Pretoria, April 2019; SADC, ‘SADC Monitoring, Control and Surveillance Coordination Centre Under Discussion’, November 2017, <<https://nfdi.info/news/sadc-monitoring-control-and-surveillance-coordination-centre-under-discussion/>>, accessed 23 October 2019.

286. Philippine Coast Guard, ‘PCG Hosts First Expert’s Group Meeting on ASEAN Coast Guard Forum’, 19 August 2015, <<http://www.coastguard.gov.ph/index.php/11-news/923-pcg-hosts-first-expert-s-group-meeting-on-asean-coast-guard-forum>>, accessed 1 November 2019.

287. Jeremy Binnie, ‘Kenya Launches Coast Guard’, *Jane’s Defence Weekly*, 20 November 2018.

crisis management that included sharing information and coordinating responses,²⁸⁸ while MoUs have allowed opportunities for joint exercises and patrols, for example in the case of South Africa, Tanzania and Mozambique.²⁸⁹ Given the links with modern slavery, interviewees stressed the need to connect joint trainings on land and sea to identify such convergence crimes.²⁹⁰

Recommendation 6: Bolstering sea and air patrols. In seeking to bolster the effectiveness of sea and air patrols, realistic appraisals must be made around sustainability and cost, and innovative approaches adopted to ensure effective intelligence-led targeting. A potentially replicable model is offered by Thailand’s data-driven, risk-based approach to targeting. Cross-border initiatives to ensure that targeting is informed by cross-border data analysis and sharing are also essential.

Port Inspections

Port inspections are another opportunity for the detection and interdiction of perpetrators. Such inspections aim to detect not just IUU violations but also red flags for forced labour on board. As such, these are among the most important tools in tackling the multi-dimensional threat posed – although, again, a variety in resources and capacity was encountered across the focus countries.

Again, the most sophisticated system was found in Thailand, whose Port-In Port-Out (PIPO) inspections became operational in May 2015.²⁹¹ Mandatory for all vessels over 30 GT and Thai overseas fishing vessels, inspections are coordinated by the CCCIF and run by a multi-agency team to target fisheries and labour violations. Again, inspections are conducted in line with risk-based assessments, using a web-based ‘single-window’ system.²⁹² Online documents are requested two hours before arrival at port, at which point captain and crew are interviewed, via

288. Giulia Nicoloso, ‘EU CRIMARIO: Crisis Management Exercise Against Oil Spilling in Seychelles’, Critical Maritime Routes Programme, 29 September 2016, <<https://criticalmaritimeroles.eu/2016/09/29/eu-crimario-information-sharing-protecting-maritime-domain-pollution/>>, accessed 23 October 2019.

289. Future Directions International, ‘South Africa, Mozambique to Undertake Joint Anti-Piracy Patrols’, 8 June 2011, <<http://www.futuredirections.org.au/publication/south-africa-mozambique-to-undertake-joint-anti-piracy-patrols/>>, accessed 23 October 2019; South African Institute of International Affairs, ‘Mozambique’s Security Cooperation: Protecting the Maritime Borders’, 29 June 2012, <<https://saiaa.org.za/research/mozambiques-security-cooperation-protecting-the-maritime-borders/>>, accessed 23 October 2019.

290. Authors’ telephone interview with SAG4, former government representative, April 2019.

291. Ministry of Social Development and Human Security, ‘Thailand’s Country Report on Anti-Human Trafficking Response (1 January–31 December 2016)’, 2017, p. 116; EIJ, *Thailand’s Seafood Slaves*.

292. Thai Embassy, Washington, DC, ‘Thailand’s Fisheries Reform: Progress and Way Forward in the Fight Against IUU Fishing and Forced Labor: Meeting with the Food Marketing Institute’s Seafood Committee at the Seafood Expo North America 2016’, Boston, 5 March 2016, <<http://thaiembdc.org/2016/03/07/thailands-fisheries-reform/>>, accessed 23 October 2019; Human Rights Watch,

interpreters if necessary.²⁹³ Crew may be required to provide iris scans, a form of tamperproof ID introduced by the Ministry of Labour, with 70,000 fishers reportedly registered by July 2018.²⁹⁴

According to one interviewee, the PIPO system is designed to prevent ‘the worst forms of exploitation’ on Thai vessels.²⁹⁵ Such checks – both human and iris-scanner – should in theory prevent fishers from being transhipped or disappeared at sea, as in Ambon and Benjina.²⁹⁶ At the same time, the web-based ‘single-window’ system makes it more difficult to forge logbooks or manifests, while ensuring that data on a vessel and its catch is uploaded to a single system, accessible to customs, the Marine Department and the DOF.²⁹⁷ The risk-based approach increases efficiency, while incentivising compliance. At the same time, the rotation of inspectors every two years is designed to reduce the risk of corruption²⁹⁸ – although there is a lack of information on effectiveness.

In practice, however, concerns have been raised that PIPO inspections are at times insufficiently rigorous, failing to prevent exploitation on Thai vessels. In 2017, Freedom Fund reported that crew checks ‘consisted solely of cursory document inspection, cross-checked against the crew list’.²⁹⁹ Human Rights Watch has found that PIPO teams do not always carry out physical vessel inspections, allowing workers to be hidden onboard.³⁰⁰ Indeed, from 6 May 2015 to 8 January 2016, PIPO inspectors reportedly did not find a single case of forced labour among 474,334 fishers.³⁰¹ Just seven cases of trafficking for the purposes of forced labour in the sector were investigated in 2017.³⁰²

Port inspection systems elsewhere were less sophisticated and, notably, mainly paper-based. Such systems are vulnerable to fraud and impede efforts to link IUU fishing with other related

‘Hidden Chains’; authors’ interview with C1, independent consultant, Bangkok, July 2018; authors’ interview with TG1, government representative, Bangkok, July 2018.

293. Authors’ interview with TG8, government representative, Bangkok, July 2018.

294. Authors’ interview with TG2, government representative, Bangkok, July 2018; Ministry of Labour (Thailand), ‘Gen. Adul Announced the Results of Scanning the Alien Iris’, 28 March 2018; *Reuters*, ‘Thailand Scans Fishermen’s Eyes to Cut Slavery’, 20 February 2018.

295. Authors’ interview with C1, independent consultant, Bangkok, July 2018.

296. IOM Indonesia, ‘Report on Human Trafficking, Forced Labour and Fisheries Crime in the Indonesian Fishing Industry’, 2016.

297. MFA, ‘Thailand’s Effective Fleet Management and the Deployment of Police Officers at the Fishing Monitoring Center’, press release, 8 February 2018.

298. Authors’ interview with TG8, government representative, Bangkok, July 2018.

299. Stride, ‘Assessing Government and Business Responses to the Thai Seafood Crisis’, p. 19.

300. Human Rights Watch, ‘Hidden Chains’, p. 106; EJF, *Thailand’s Seafood Slaves*.

301. Royal Thai Government, ‘Trafficking in Persons Report 2015: The Royal Thai Government’s Response 1 January–31 December 2015’, p. 84, <http://ccpl.mol.go.th/ewt_dl_link.php?nid=86&>, accessed 23 October 2019.

302. US Department of State, ‘2018 Trafficking in Persons Report – Thailand’, <<https://www.refworld.org/docid/5b3e0a604.html>>, accessed 23 October 2019.

crimes. For example, an electronic system can be used to link catch data to the tax system, to verify whether a vessel owner has paid the right tax.³⁰³ Both Vietnam and Indonesia plan to introduce electronic systems and should be encouraged to adopt the kind of ‘single-window’ system used in Thailand.

Thailand also has the only system involving routine checks for labour violations by officers trained to spot them. In Indonesia, by contrast, the relevant harbourmasters inspect catch and gear used, among other checks, but are not necessarily trained to conduct labour checks.³⁰⁴ Indeed, the US State Department notes that Indonesia does not always follow its own procedures for proactive victim identification, often leaving this to international organisations and NGOs.³⁰⁵

In South Africa, meanwhile, interviewees noted that DAFF fisheries inspectors are allowed to board any fishing vessel in port but are not trained to identify labour abuses.³⁰⁶ Instead, labour checks are made by the South African Maritime Safety Authority, but they are rarely present when fisheries officers make their inspections. This is particularly problematic in South Africa, as many of the vessels coming into port are part of distant-water fleets from East Asia, and crews of such vessels are at increased risk of being subject to labour abuses and modern slavery.³⁰⁷ The ability to spot abuses is particularly crucial where crew are coached or coerced into lying about conditions; fishers may also lie willingly, to avoid losing a paying job, even if conditions are exploitative.³⁰⁸

Language barriers pose further issues, with interpreters not always available for fisheries incidents.³⁰⁹ Where inspectors cannot speak the crew’s language, there is a danger that captains will interpret, concealing any offences. In South Africa, interviewees complained that inspectors rarely had the language skills to speak to the captains or crews of vessels in port, or easy access to interpreters.³¹⁰ One interviewee called for the creation of a pool of interpreters

303. Roundtable contribution by O11, representative of international organisation, Hanoi, July 2018.

304. KKP, ‘Indonesia National Action Plan to Prevent and to Combat Illegal, Unreported, and Unregulated Fishing’, p. 18; authors’ interview with O8, O9, representatives of international organisation, Jakarta, July 2018.

305. US Department of State, ‘2017 Trafficking in Persons Report – Thailand’.

306. Authors’ interview with N35, NGO representative, Cape Town, April 2019.

307. David Tickler et al., ‘Modern Slavery and the Race to Fish’, *Nature Communications* (Vol. 9, No. 1, November 2018), pp. 1–9; Greenpeace, ‘Made in Taiwan: Government Failure and Illegal, Abusive and Criminal Fisheries’, 2016.

308. Authors’ interview with N17, NGO representative, Bangkok, 5 July 2018; Human Rights Watch, ‘Hidden Chains’.

309. Roundtable contribution by SAG7, government representative, Cape Town, April 2019; roundtable contribution by N35, NGO representative, Cape Town, April 2019.

310. Contribution to roundtable discussion by N35, NGO representative, Cape Town, April 2019; contribution to roundtable discussion by SAG7, government representative, Cape Town, April 2019.

to work ‘specifically on sea issues’.³¹¹ In Thailand, until recently, fishers’ words were translated by the very people enabling their exploitation: their employers.³¹² The country has since sought to overcome this by employing interpreters to accompany PIPO teams and conducting interviews with crew away from the captain.³¹³ Meanwhile, civil society bodies such as Stella Maris, an NGO working with those vulnerable to labour exploitation in the fishing industry, can also contribute by offering a less formal and intimidating context for interviews. Where NGOs already offer this service, interviewees described crew reports as ‘completely different’ to those told to officers in uniform.³¹⁴

One way to address the issue of specialisation – whereby fisheries officers are trained to spot only fishing violations – is to diversify skills and knowledge, empowering officers to identify wider crimes. Similarly, those inspecting for other violations, such as those related to customs, could be trained to spot potential fisheries violations. Some steps towards this have been taken, with growing recognition of IUU as organised crime increasingly allowing attendance at donor-run law enforcement training.³¹⁵ A more focused option involves the creation of specialised institutions. A positive example is the FishFORCE academy at Nelson Mandela Metropolitan University in South Africa. Set up in 2016 with Norwegian government funding, the academy provides tailored courses to fisheries officers to ensure that ‘law enforcement activities in the fisheries crime field is promoted’.³¹⁶ FishFORCE also provides a hotline, offering officers real-time guidance on cases.

Between 2016 and 2018, the academy trained 398 officers from the DAFF and other agencies.³¹⁷ The FishFORCE model has also been extended to other countries: an academy was established

311. Contribution to roundtable discussion by SAG11, FishFORCE representative, Cape Town, April 2019.

312. Human Rights Watch, ‘Hidden Chains’, p. 114.

313. US Department of State, ‘2018 Trafficking in Persons Report – Thailand’.

314. Authors’ interview with O18 and O19, representatives of international organisation, Bangkok, July 2018.

315. UNODC, ‘South Asia: UNODC, World Customs Organization Hold Training to Fight Fisheries Crime’, 8 January 2017, <https://www.unodc.org/unodc/en/frontpage/2018/January/south-asia_-unodc-world-customs-organization-hold-training-to-fight-fisheries-crime.html>, accessed 23 October 2019.

316. Norwegian Government, ‘Grant Agreement Between the Norwegian Ministry of Foreign Affairs and the Nelson Mandela Metropolitan University Regarding RSA-3133, RAS-16/0001: Development of a Training Programme for Fisheries Law Enforcement Officers (FishFORCE)’, 6 June 2016, <<https://fishforce.mandela.ac.za/fishforce/media/Store/documents/MOU/fishforce-mou.pdf>>, accessed 28 October 2019; Stop Illegal Fishing and PescaDOLUS, ‘Record of the First International Symposium on FishCRIME’, p. 28.

317. Nelson Mandela University, ‘Overall Training Statistics 2016–2018’, <<https://fishforce.mandela.ac.za/Infographics/Overall-Training-Statistics-2016-2018>>, accessed 23 October 2019.

in Indonesia in March 2017, with plans to expand to Kenya in discussion since 2016.³¹⁸ Both the South African and Indonesian academies now train visiting delegations.³¹⁹ Interviewees stressed the value of replicating this experience, particularly in countries such as Vietnam where, according to one interviewee, since the merging of D-FISH into MARD in 2007, no dedicated educational institute exists.³²⁰

Recommendation 7: Enhancing the effectiveness of port inspections. When looking to enhance port inspections, interventions should ensure that those mandated to conduct inspections of fishing vessels are trained to go ‘beyond fish’, with the ability to spot labour and other associated criminal violations. Dedicated training institutions should be supported to diversify skills in this regard, with the FishFORCE academy offering a useful model. In parallel, paper-based inspection systems must be replaced by electronic systems as a matter of urgency, with a potential model offered by the ‘single-window’ system used in Thailand.

Bolstering Investigation and Prosecution

Detection and interdiction are vital stages in the disruption of IUU fishing and associated crimes. However, effective investigation and prosecution must follow to secure lasting gains against perpetrators. As discussed, all focus countries have increased sanctions for IUU fishing, but these will only act as a deterrent if crimes are effectively investigated and penalties consistently applied.

Overall, the situation across the focus countries remains one where, if intercepted, perpetrators are still unlikely to be prosecuted in a criminal court. For those who are convicted, custodial sentences – even where available – remain rare, with fines more often issued. Vietnam, for example, has been among the least willing of the focus countries to mete out criminal sanctions, with most violations punished by administrative penalties. The country’s last criminal conviction for IUU fishing reportedly came in 2016 when, in Hai Phong, a vessel captain received a three-year sentence for blast fishing.³²¹

In other focus countries, the experience has been more promising. Thailand, for example, prosecuted 1,144 cases of IUU fishing between 2016 and 2018, the majority (1,065) concerning

318. FishCRIME, ‘Indonesia Opens the International FishFORCE Academy of Indonesia (IFFAI)’, 16 March 2017; Nelson Mandela University, ‘Concept Note on the Establishment of the Fishforce Academy’, April 2019, <<https://fishforce.mandela.ac.za/getmedia/f4f59e69-9df8-47d5-bf84-d2916af0d7cf/CONCEPT-NOTE-ON-THE-ESTABLISHMENT-OF-THE-FISHFORCE-ACADEMY?disposition=attachment>>, accessed 23 October 2019.

319. Nelson Mandela University, ‘Kenyan Delegation FishFORCE Training at Nelson Mandela University’, 1 April 2019; *Tempo.co*, ‘Illegal Fishing: Susi Calls on All Countries to Open VMS Data’, 22 July 2019.

320. Authors’ interview with O13, representative of international organisation, Hanoi, 12 July 2018.

321. Authors’ interview with VG6, government representative, Hanoi, 10 July 2018.

offences in Thai waters, with a further 79 among the distant-water fleet.³²² Although there have been fewer relevant cases – owing to a lack of detection of IUU offences prior to the creation of the NMATT and the Operation *Jodari* collaboration – Tanzania has also shown itself as able to issue weighty penalties for IUU fishing. As a case in point, the Malaysian owner, agent and Taiwanese captain of the Malaysian-flagged *Buah Naga 1* are currently serving 20-year prison sentences for illegal shark-finning, among other charges.³²³

Ultimately, human factors underscore the successful investigation and prosecution of IUU fishing and associated crimes. Where officers lack the relevant skills, cases are likely to collapse in court. A key challenge here is preservation of the crime scene and chain of evidence – an issue affecting all focus countries.³²⁴ This is partly because, unlike illegal commodities such as drugs, fish products are largely legal, so evidence must be found in other forms, such as logbooks. The problem is exacerbated by the transnational nature of many cases, including those involving human trafficking. Even where evidence can be obtained, many victims are repatriated long before a case begins, or refuse to testify out of fear of reprisals or stigmatisation.³²⁵

Other obstacles identified relate to mutual frustration between investigators and prosecutors. This can occur where prosecutors are unwilling to take on a case due to insufficiently robust evidence or where poor evidence collection prevents prosecution.³²⁶ Prosecutors, in particular, were described as lacking the training to secure convictions, whether for IUU fishing or related crimes. In Thailand, a further challenge stems from divergent definitions, with prosecutors reportedly unwilling to pursue human-trafficking charges without evidence of use of physical force.³²⁷

As a result, in Thailand, prosecutions for human trafficking in the fishing industry are low. Of the 644 onboard inspections conducted by the Thai Ministry of Labour in 2017, and of the 34 labour violations identified, only three cases were prosecuted.³²⁸ To address this, in March 2018, the Thai Attorney General issued guidelines on IUU fishing cases, including descriptions of charges and sentencing recommendations. However, meaningful convictions also depend on sensitisation of the judiciary on appropriate penalties.³²⁹ The difficulties associated with prosecution and achieving meaningful convictions mean that often cases are settled out of court. Such settlements are subject to negotiation, during which the alleged criminal offences may be ‘forgotten’ in order to ensure that a settlement is reached.

322. Thai Embassy, ‘Thai Embassy Update No. 2/2018, IUU Facts and Figures’, 9 February 2018, <<http://thaiembassy.se/wp-content/uploads/180213.pdf>>, accessed 23 October 2019.

323. Stop Illegal Fishing, ‘Tanzania Convicts Captain, Owner and Agent of BUAH NAGA NO 1 for Unlawful Shark Finning’, 15 January 2019.

324. Stop Illegal Fishing and PescaDOLUS, ‘Record of the First International Symposium on FishCRIME’.

325. Authors’ interview with O10, representative of international organisation, Hanoi, 10 July 2018.

326. Authors’ interview with G10, representative of diplomatic mission, Dar Es Salaam, April 2019.

327. Authors’ telephone interview with G2, foreign government officials, July 2018; authors’ interview with N23, N24, N25, NGO representatives, June 2018.

328. US Department of State, ‘2018 Trafficking in Persons Report – Thailand’.

329. Authors’ telephone interview with G2, representative of diplomatic mission, July 2018.

Various opportunities to improve investigative and prosecutorial capacity emerged from the research. These include the provision of technical training specific to IUU fishing and associated crimes. Whilst some short-term training is on offer, interviewees stressed the need for dedicated domestic training institutions to develop the knowledge and skills required.³³⁰ Others emphasised the need for closer and earlier consultation between investigators and prosecutors.

Where capacity is weak, meanwhile, the research pointed to the value of embedding experienced law enforcement agents in units responsible for investigating and prosecuting IUU fishing and associated crimes. Such a model has been used in Tanzania to help interdict illicit drug shipments, with international officers acting as law enforcement detachments on maritime operations by the DCEA.³³¹ This has helped to ensure that officers internalise best practice in preserving the crime scene and chain of evidence. Some interviewees suggested that such on-the-job mentorship was more effective than training,³³² and, whilst expensive, could lead to more sustainable results, including when applied to challenges such as IUU fishing.

Such initiatives could usefully be accompanied by the development of IUU fishing-specific Rapid Reference Guides for investigators and prosecutors – of the kind developed to tackle wildlife trafficking in countries such as Tanzania.³³³ Alongside fisheries laws, such guides should detail how prosecutors can use ancillary legislation – relating to corruption, money laundering and human trafficking – which can offer weightier penalties.³³⁴ The potential impact of doing so is apparent in Thailand – one country that has successfully used alternative legislation, in the form of labour laws. In January 2018, a Thai court sentenced two individuals to 11 years each for facilitating forced labour on the *Katesuwanrat 11*.³³⁵ Another example is that of the *Tawariq 1* in Tanzania, for which the captain and agent of the ship were fined in 2012 for pollution offences.³³⁶

Specialised courts can also encourage consistent sentencing and the use of ancillary legislation. To tackle rampant abalone poaching in South Africa, for example, a dedicated environmental court was created in 2003, in its first 18 months achieving a prosecution rate of 75% – well above the

330. Authors' interview with TZG1, government representative, Dar Es Salaam, April 2019; authors' interview with TZG10, government representative, Dar Es Salaam, April 2019.

331. EU NAVFOR Somalia, 'Operation Atalanta Flagship ESPC Galicia Trains with Tanzania Maritime Law Enforcement Detachment During Port Visit to Dar es Salaam in Tanzania', 17 April 2017.

332. Authors' telephone interview with O22, representative of international organisation, March 2019; authors' interview with G9, UK government representative, March 2019.

333. UNODC, 'Quarterly Newsletter from the Regional Office for Eastern Africa', 2017, p. 1, <https://www.unodc.org/documents/easternafrika//FrontOffice/ROEA_Newsletter_Q1-_2017b.pdf>, accessed 23 October 2019.

334. UNODC, 'Outcome of the 2nd International Symposium on Fisheries Crime, 10-11 October 2016, Yogyakarta, Indonesia'.

335. MFA, 'Thai Court Imposed an 11-Year Prison Sentence on Two Defendants Guilty of Human Trafficking on Board Fishing Vessel', press release, 15 February 2018.

336. Stop Illegal Fishing, 'Tawariq 1', <<https://stopillegalfishing.com/tawariq-1/>>, accessed 23 October 2019.

10% rate in mainstream courts.³³⁷ A former official explained the parallel benefits to investigators, who could consult court prosecutors with expertise on IUU fishing for specialist advice.³³⁸ Although terminated in 2006 – when the court’s workload decreased such that it was deemed surplus to requirements – the current abalone poaching crisis has led to suggestions that it be reinstated.³³⁹ Such specialised courts could also be set up elsewhere, including in SEA. Here, measures are already being trialled to expedite IUU court cases: Thailand, for example, has convened two special panels of judges in the Thai Criminal Court to ensure cases are tried within six months of charges being accepted.³⁴⁰

Finally, the research found that capacity to investigate and prosecute IUU fishing and associated crimes could be improved by ‘following the money’ more consistently. Financial investigations are commonly used in relation to other crimes but underused in environmental crimes. These investigations could also help to uncover links with corruption, money laundering and fraud. However, challenges stem from what UNODC describes as a ‘lack of transparency surrounding corporate structures and the associated difficulty in identifying a vessel’s beneficial owner’.³⁴¹ This has been seen in cases across the focus countries, including those of the *Naham 4* in South Africa and *Lucky Star* in Tanzania.³⁴²

Indeed, financial investigations are complex to conduct, requiring specialist skills. As such, their use in relation to IUU fishing depends on both increased resourcing and delivery of tailored capacity building, as well as closer contact with domestic financial crime bodies. Here, a number of promising initiatives have increasingly been undertaken in relation to other environmental crimes, which could be replicated or expanded to consider IUU fishing. From 2017 to 2019, for example, tailored capacity building has been supported by the UK government across Eastern and Southern Africa to bolster the use of financial tools in the investigation and prosecution of wildlife crime – approaches which could be easily expanded to benefit those charged with responding to large-scale IUU fishing.

Recommendation 8: Strengthening investigation and prosecution. Where working to strengthen investigation and prosecution, enhanced training in evidence-collection techniques for investigators should be prioritised through dedicated domestic institutions. Prosecutorial capacity should also be built, with a focus on closer and earlier consultation with investigators. Options to achieve this include: the development of IUU fishing-specific Rapid Reference Guides; the provision of financial investigation training; and, where appropriate, the establishment of specialised courts, whereby investigators are able to consult prosecutors with expertise on IUU fishing for specialist advice.

337. Kimon De Greef and Serge Raemaekers, *South Africa’s Illicit Abalone Trade: An Updated Overview and Knowledge Gap Analysis* (Cambridge: TRAFFIC International, 2014), p. 7.

338. Authors’ interview with N37, NGO representative, Cape Town, April 2019.

339. Authors’ interview with N35, NGO representative, Cape Town, April 2019; roundtable contribution by SAG7, government representative, Cape Town, April 2019.

340. Thai Embassy, ‘Thai Embassy Update No. 2/2018, IUU Facts and Figures’.

341. UNODC, ‘Outcome of the 2nd International Symposium on Fisheries Crime, 10–11 October 2016, Yogyakarta, Indonesia’.

342. Stop Illegal Fishing, ‘Illegal Fishing?’, p. 12.

Conclusions

ALL OF THE countries examined have suffered – and continue to suffer – as a result of the multidimensional security threat posed by IUU fishing. In many cases, there is evidence that the criminal networks involved are capable of running highly sophisticated operations to grave ecological, social and economic effect. This systematic, high-volume IUU fishing constitutes organised crime on a transnational scale, requiring a new response over and above the technical fisheries management approach traditionally adopted.

In recognition of this, each country has made concerted efforts to enhance its law enforcement response. In examining experience to date, this report has considered the range of challenges encountered in bolstering legislative, regulatory and institutional frameworks, strengthening detection and interdiction capabilities, and enhancing investigation and prosecution. For example, recent experience confirms that reforming legislation to reflect the gravity of the threat is essential. However, challenges have frequently arisen around ensuring consistent application of new frameworks – essential if a long-term deterrent is to emerge. Further challenges have surrounded the need to base reform on genuine consultation to avoid negative consequences across the chain.

In terms of monitoring and enforcement, challenges have derived from the fact that many recent responses are technologically driven, involving the integration of new tools into MCS systems. When used as part of an intelligence-led risk-based system, these tools offer essential aides in detecting, interdicting and investigating those engaged in IUU fishing. A recurrent issue has emerged around sustainability, however, with insufficient focus on upskilling the human resources needed to operate tools sustainably. Meanwhile, further issues arise around ensuring that human officers possess the breadth of skills required to identify the broader crimes with which IUU fishing intersects.

Through semi-structured interviews with over 100 respondents, a range of opportunities to address these challenges have also emerged. These are highlighted throughout the report, alongside positive progress where this has occurred in particular countries. To ensure progress in tackling the multidimensional threat posed, it is crucial that this real-world experience is recognised and regularly accounted for, with lessons learned translated into updated policy and practice.

The recommendations outlined throughout the report are offered to support this process, drawing on experience detailed throughout the analysis. Importantly, the recommendations do not reiterate global recommendations made extensively elsewhere, which affected countries worldwide have already sought to apply. Rather, they offer specific guidance on *tailoring* existing approaches, in light of the on-the-ground experience in developing responses in the five focus countries considered. The full list of recommendations can be found in the Executive Summary.

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