"Is progress being made to reduce the incidence and extent of IUU fishing? It is clear that in some areas of the world IUU fishing is being beaten...In other areas, the incidence of IUU fishing remains high and is expanding."

VERTIC BRIEF • 18 • July 2012

B R I E

Challenging times for sustainable fisheries:

Combating illegal, unreported and unregulated fishing David J. Doulman¹



"IUU fishing is a problem of global proportions, sometimes associated with other forms of trans-boundary crime."

Introduction

For more than a decade the international community has been concerned about the damage, destruction and theft associated with illegal, unreported and unregulated (IUU) fishing. The scope of IUU fishing, as set forth in the 2001 International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU),² and adopted in subsequent binding and voluntary instruments, is broad.³

It ranges from fishing in areas under national jurisdiction without the authorization of the coastal state; fishing that contravenes or undermines conservation and management effective administration of regional fisheries management organizations and arrangements (RFMOs); failure by flag states to exercise effectively the required jurisdiction or control over vessels and nationals, and failure to fully and accurately meet fishery and fishing vessel data collection and reporting requirements.⁴

IUU fishing is a problem of global proportions, sometimes associated with other forms of trans-boundary crime. IUU fishing is motivated financially, taking advantage of fragile governance structures and weak political commitment to achieve sustainability. Furthermore, a lack of effective regional fisheries cooperation, the non-observance of flag-state obligations under international law, the presence of 'ports of non-compliance', poor monitoring, control and surveillance (MCS), and limited technical and financial capacity, contribute to, and facilitate, IUU fishing. Since its inscription on the global fisheries agenda in 2000, there have been persistent calls in national, regional and international forums to implement stronger measures against IUU fishing and to develop new instruments as additional tools to tackle the problem.

The term 'IUU fishing' was adopted in the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 1997 and came to global prominence in 1999 at a ministerial-level fisheries meeting at the Food and Agricul-

ture Organization of the United Nations (FAO) in Rome. The meeting had been convened to consider progress with the implementation of the 1995 FAO Code of Conduct for Responsible Fisheries (Code of Conduct).⁵ In adopting the 'Rome Declaration' the Ministers decided that FAO should develop 'a global plan of action to deal effectively with all forms of illegal, unreported and unregulated fishing including fishing vessels flying 'flags of convenience'.6 This seminal initiative set the stage for efforts, within the framework of the Code of Conduct, to launch a coherent suite of actions against IUU fishing and provided the impetus for the FAO to pursue the negotiation and adoption of the IPOA-IUU.

IUU fishing was cited in 2000 in the United Nations resolution on oceans and law of the sea, and subsequently, in the sustainable fisheries resolutions. In the same year, the United Nations Openended Informal Consultative Process on Oceans and the Law of the Sea (UNIC-POLOS) discussed IUU fishing for the first time and reinforced the UN's focus on IUU fishing and its deleterious effects on marine ecosystems, fisheries, food security and livelihoods, in 2000. UN agencies and other organizations such as the International Maritime Organization (IMO) and the Commission on Sustainable Development, and regional fisheries bodies (RFBs), including RFMOs, also adopted the terminology and started assessing the causes, impacts and means to combat IUU fishing.

Assessment, monitoring, verification

While global assessments of the quantity and value of IUU fishing have been attempted, the nature of clandestine fishing does not permit ready global estimation. Anecdotal information about IUU fishing is widespread and suggests that it could account for up to 30 per cent of total catches in some important commercial fisheries and that IUU landings could account for 50 per cent of total landings in some ports. In the case of CCAMLR, it was estimated in the late 1990s that IUU catches could have been as high as three times permitted catch levels.⁷ The

scale and scope of these data have major consequences for national and regional efforts to manage fisheries in a long-term sustainable manner, including on the key issue of efforts to rebuild depleted, overfished stocks.

The most recent and authoritative global estimate of IUU fishing was published in 2008.⁸ This worldwide estimate indicated that the annual IUU fishing catch was in the range of 11-26 million tonnes with an estimated value of USD 10-23 billion. Interestingly, the report noted that these values were consistent with earlier less rigorous 2002, 2005 and 2007 estimates.

The FAO has been hesitant to develop global IUU fishing and value estimates principally because of the paucity of reliable data. It has taken the position that while work relating to IUU estimation is encouraged, the most effective and reliable means of developing estimates is through RFMOs; these organizations are close to IUU fishing activities and are called on to monitor and verify IUU fishing on an almost daily basis.

About 35-40 per cent of FAO members⁹ respond biennially to a questionnaire relating to the implementation of the Code of Conduct. In recent reports countries have stressed that IUU fishing occurs in all capture fisheries, irrespective of their locations, but its extent and full impact is not well known. Many countries lack the human capacity and financial resources to undertake quantitative surveys and assessments to monitor and verify IUU fishing in areas under national jurisdiction. ¹⁰

To put the magnitude of the IUU fishing problem into global perspective, FAO estimated, on the basis of information provided to it by members, that worldwide inland and marine capture fisheries production was 90.0 million tonnes in 2009.¹¹ A comparison of the estimated IUU fishing catch published in 2008 (11-26 million tonnes) shows that this catch was equivalent to 12-29 per cent of total global capture fisheries production. While the two data sets may not be strictly comparable, the comparison demonstrates

indicative proportions that are of major concern.

Post-UNCED instruments

IUU fishing, per se, was not addressed at UNCED nor in its outcome, 'Agenda 21: The United Nations Programme of Action from Rio'.12 This was primarily because IUU fishing was somewhat of an emerging issue between 1990 and 1992 when UNCED documentation was being negotiated. However, a decade later in the follow-up to UNCED, the 2002 World Summit on Sustainable Development (WSSD) reviewed the scope and effects of IUU fishing.¹³ The Johannesburg Plan of Implementation (JPI), adopted by WSSD, called on countries to implement the Conduct of Conduct and its related international plans of action and guidelines in a time-bound manner.

Significantly, the JPI urged countries to implement national and regional plans of action by 2004 to give effect to the IPOA-IUU. This was the deadline set in the instrument for countries to develop national plans of action to combat IUU fishing (NPOAs-IUU) when the IPOA-IUU was being negotiated, even though some developing countries lamented, with justification, that a three-year timeframe was insufficient to elaborate NPOAs-IUU and put in place the measures and procedures to implement them.

FAO produced two guides to assist countries elaborate NPOAs-IUU. One was used as training material in the global series of workshops to promote the development of NPOAs-IUU.14 In the workshops, participants were briefed on all aspects of the IPOA-IUU, including on techniques of drafting NPOAs-IUU. The second document was prepared for use in the Pacific Islands, taking account of the region's specificities in relation to inshore and offshore fisheries, in particular tuna. Its contents were however applicable to other regions of the world, particularly small island states in the Caribbean and Indian Ocean.¹⁵ Both documents provided step-by-step explanations about each section of the IPOA-IUU. They indicated issues that should be highlighted and dis-

"The most recent and authoritative global estimate of IUU fishing was published in 2008. This worldwide estimate indicated that the annual **IUU** fishing catch was in the range of 11-26 million tonnes with an estimated value of USD 10-23 billion." "The most important voluntary instrument concluded since UNCED is the Code of Conduct."

cussed, and follow-up action that might be necessary, for example, ratification of instruments. Many countries found the process for the elaboration of the NPOA-IUU beneficial because it enabled them to identify and fill gaps in existing policies, legislation, measures and procedures.

Most recently, a 2011 UN inter-agency document has identified that important national commitments from UNCED and WSSD have not been met, including progress with the implementation of the IPOA-IUU.

The FAO estimates that fewer than 40 countries have developed NPOAs-IUU and fewer than 10 countries have incorporated key aspects of the IPOA-IUU in a systematic way into national policy and legislation. In addition, not more than five regional plans of action (RPOAs-IUU) have been elaborated.¹⁶ Many RFBs have, however, sought to sensitize members about the need to take action to defeat IUU fishing. And RFMOs, inspired by the IPOA-IUU, have adopted binding conservation and management measures for parties and, in some cases, measures to encourage non-parties to cooperate against IUU fishing.

UNCED was a unique global event. It marked a turning point in the way in which the international community viewed how natural resources were utilized, and how they should be utilized. The universal acceptance of the concept of long-term sustainability prompted the negotiation of a number of voluntary and binding international fisheries instruments. After UNCED a large number of instruments have been concluded, more than in the preceding 50 years. But their implementation has placed a heavy burden on many countries. The so-called 'instrument implementation fatigue' has been highlighted in international forums (for example. FAO), even by some developed countries, and in the fisheries literature.17

All post-UNCED voluntary and binding instruments, irrespective of whether they address IUU fishing specifically, have

conservation and management goals that are fundamentally incompatible with IUU fishing. Consequently, the implementation of these instruments should help to improving governance, provide more robust fisheries management, and at the same time, defeat IUU fishing.

Voluntary instruments Code of Conduct

The most important voluntary instrument concluded since UNCED is the Code of Conduct. ¹⁸ Intended to provide a comprehensive framework for the development and management of fisheries and aquaculture, and to be implemented in a holistic manner, the code is a dynamic, global instrument, setting standards and providing best practices for fisheries. Its implementation is underpinned by technical guidelines that provide state of the art 'how to' information for governments and other stakeholders.

Guidelines are prepared and updated periodically. One set of guidelines was produced in 2001 to support the implementation of the IPOA-IUU.¹⁹ A series of simple language guides to assist implementation of the c have also been prepared and disseminated. These are intended to inform small-scale fishers and fishing communities about the Code of Conduct and the rationale for its implementation.

In addition to the technical guidelines, four IPOAs (incidental catch of seabirds in long-line fisheries, management of sharks, management of fishing capacity²⁰ and IUU fishing), four sets of guidelines (eco-labelling of fish and fishery products from marine capture fisheries,21 eco-labelling of fish and fishery products from inland fisheries, aquaculture certification,²² and reduction of sea turtle mortality in fishing operations), and two sets of international guidelines (bycatch management and reduction of discards and management of deep-sea fisheries on the high seas) have been elaborated under the Code of Conduct's umbrella. Furthermore, two binding instruments (Compliance and Port State Measures Agreements) have been concluded. But the Code of

Conduct does not address IUU fishing: the IPOA-IUU was concluded to fill that gap.

IPOA-IUU

There was widespread enthusiasm among FAO members for the development of the IPOA-IUU. As normal with the elaboration of FAO instruments of this type, a two-step process was agreed and followed.

The first step was an Expert Consultation on Illegal, Unreported and Unregulated Fishing hosted by the Australian Government in cooperation with FAO.²³ This meeting was held in Sydney in May 2000. The experts were tasked to prepare a preliminary draft IPOA-IUU, The second step was a FAO Technical Consultation on Illegal, Unreported and Unregulated Fishing. Its first meeting was in October 2000.²⁴ As expected, the consultation agreed to use the Sydney text as the point of departure.

The consultation commenced with a methodical review and negotiation of the text, addressing the nature and scope of IUU fishing, objectives and principles, key actions in combating IUU fishing (including all state, flag state and port state responsibilities), internationallyagreed market-related measures, research, regional fisheries management organizations, special requirement of developing countries, reporting and the role of FAO. Although sound progress was made in the consultation, it was agreed that a further session would be beneficial to refine the text prior to its submission to COFI in 2001.

The second session of the Technical Consultation duly took place in February 2001, immediately prior to COFI.²⁵ The report of this meeting, including the revised draft IPOA-IUU, was adopted with the request that the report be submitted to COFI for eventual adoption. However, a number of countries expressed reservations to the IPOA-IUU text, although Chile and the USA strongly supported it.

Though there was protracted debate at COFI, the IPOA-IUU was adopted by

consensus.²⁶ Some countries indicated that they reserved the right to exercise stronger measures to combat IUU fishing than those reflected in the IPOA-IUU. Other countries expressed reservations on specific paragraphs. COFI acknowledged the important role that FAO should play in promoting the implementation of the IPOA-IUU, particularly in the provision of technical assistance to developing countries.

Model Scheme

Concerned about the need to promote and deepen the implementation of the IPOA-IUU, FAO convened an Expert Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing in 2002. Its purpose was simple: to facilitate the implementation of the IPOA-IUU in the key area of port state measures. The experts at the meeting focused attention on a paper entitled 'Port State Control of Foreign Fish Vessels'. In doing so, they undertook an exhaustive review of port state measures relating to fishing vessels. The paper contained a draft memorandum of understanding (MOU) on port state measures to combat IUU fishing. The consultation recognized that regional MOUs, similar in approach to IMO MOUs, could serve as important and effective tools for enhancing responsible fisheries management. The meeting also identified elements that might be included in such regional MOUs.

The expert consultation made several recommendations including that FAO convene a technical consultation to address principles and guidelines for the establishment of regional MOUs on port state measures to combat IUU fishing, elaborate and implement programmes of assistance to facilitate human resource development and institutional strengthening in developing countries and establish a database concerning port state measures.

These recommendations were considered by the 2003 COFI session. The committee endorsed the proposal to convene a Technical Consultation, including the possibility of addressing an international "There was widespread enthusiasm among FAO members for the development of the IPOA-IUU."

"Parties to international instruments are required to take concrete steps to implement them."

instrument on port state measures to combat IUU fishing. This decision paved the way for the eventual negotiation of the Port State Measures Agreement.

The Technical Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing was convened in 2004.27 Its objectives were to consider issues relating to the role of the port state in combating IUU fishing and principles and guidelines for the establishment of regional memoranda on port states against IUU fishing. The output of the meeting was a voluntary instrument, the 2005 FAO Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing (Model Scheme).28 In addition, the Technical Consultation supported a proposed programme of capacity development and the establishment of an FAO database on port state measures.

In line with COFI's decision, FAO instigated a comprehensive global capacity-development programme to support the implementation of the Model Scheme. However, the instrument had a rather short life as it was agreed in COFI in 2007 that the FAO should negotiate a binding international instrument on port state measures. This development was not fully anticipated when the Model Scheme was endorsed by COFI some three years earlier. But the database was established and is managed by the FAO Legal Office.

Draft flag state performance criteria

Exasperated at the unbridled reign of states offering 'flags of non-compliance', the international community took action. This was done because IUU fishing can be traced directly to countries that are unable or unwilling to exercise effective flag state control in accordance with international law over the operations of their fishing vessels. COFI in 2007 considered issues relating to irresponsible flag states, and it was agreed that criteria should be developed to assess flag states' performance and to examine possible actions against vessels flying the flags of states not meeting the criteria.

Following a Canadian workshop, COFI in 2009 revisited flag state performance. It agreed that an FAO Expert Consultation should be convened in June 2009 to be followed by a FAO Technical Consultation before the 2011 COFI session. After intense deliberations, the experts agreed to recommend to a Technical Consultation that international guidelines should be developed for criteria addressing flag state performance.²⁹

An assessment process would be an important part of such guidelines. Noting the basis provided by international law for such assessments, the expert consultation proposed two processes: one for self-assessment, and the other for international or multilateral assessment that would be undertaken in a spirit of cooperation, consistent with the 1982 UN Convention on the Law of the Sea (1982 Convention).³⁰

In May 2011, the FAO Technical Consultation on Flag State Performance was convened. The consultation's first session proved to be difficult and limited progress was achieved despite a large amount of preparation. There was an apparent reluctance by some countries to negotiate and a noticeable lack of leadership in the meeting that affected the quality and level of debate as well as the consultation's results.³¹ It remains work in progress; and many key issues are yet to be addressed.

Binding instruments

Parties to international instruments are required to take concrete steps to implement them. Essentially this means framing and implementing measures and procedures to satisfy the parties' obligations that they assumed when they ratified, accepted, approved or acceded to an instrument. How this is achieved in a practical way varies among parties to an instrument and between instruments. It depends on issues such as the nature of the instrument, the number of national agencies involved in the instrument's implementation for example, fisheries, health, immigration, defense and police, and the types of measures to be implemented.

Measures and procedures implementing an instrument could consist of, for instance, the institution of, or an increase in, port inspections for fishing vessels to verify operational parameters; or 100 per cent observer coverage on vessels to verify the accuracy of catches (in terms of quantity, species and sizes); checks on at-sea operations; compulsory installation of electronic-tracking vessel monitoring systems, and verification that catch documentation scheme (CDS) requirements have been fulfilled. In addition, the implementation of most international fisheries instruments requires a degree of regional cooperation. This necessitates that parties agree on bilateral and multilateral measures to support that cooperation.

Compliance Agreement

The 1993 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (Compliance Agreement)³² was concluded in some haste. It enables parties to take action—consistent with international law—to ensure compliance with certain international conservation and management measures for living marine resources of the high seas.

The rate of acceptance of the Compliance Agreement has been low, and this has affected its standing as an international instrument. Some countries have expressed the view that the agreement did not meet their needs, that it catered too much to the interests of distant-water fishing nations (DWFNs—these are fishing states that operate on the high seas or under license in the exclusive economic zones of other countries, usually long distances from their home ports), and that it had been superseded by later, more-widely accepted, international instruments. The speculation in the mid-1990s that the instrument would quickly become customary international law has faded, though FAO and UN fisheries resolutions continue to urge countries to accept the agreement.

Fish Stocks Agreement

The 1995 Fish Stocks Agreement was a

direct UNCED outcome and a landmark instrument.³³ The agreement was concluded within the framework of the 1982 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 consolidates certain of its provisions.³⁴

Straddling fish stocks and highly migratory fish stocks are the target resources for some of the world's most commercially valuable fisheries (for example, cod and tuna). A high degree of international cooperation is envisaged between coastal states and DWFNs on a range of technical issues to achieve the goals of the agreement. This cooperation, logically run through RFMOs, is fundamental as unilateral action to conserve and manage straddling and highly migratory resources would have little practical effect.

Informal consultations among the parties to the Fish Stocks Agreement have been held annually since 2002. These provide an opportunity for parties to address issues of common concern and to reach out to non-parties to encourage them to join the agreement. They are characterized by frank debate, even if some parties hold the view that the role and visibility of non-parties in the consultations are inappropriately high.

When the Fish Stocks Agreement was negotiated there was strong interest in having a review conference so that parties could assess how, and to what extent, the agreement was being implemented. Consequently, the Fish Stocks Agreement provided in Part XII for a Review Conference to be held four years after the treaty entered into force. This conference was convened in May 2006 and resumed in May 2010. Parties agreed that the conference's resumption was important to ensure that the implementation momentum achieved in the first four years of the agreement's life was maintained, and if possible, accelerated.

At the 2010 resumed session, parties provided self-assessments in relation to two broad topics: review of the implementa-

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tion of the extensive recommendations adopted at the 2006 Review Conference, and proposed means of further strengthening the substance and methods of implementation of the agreement. The 2010 Review Conference's report provides a detailed synthesis of the self-assessments provided by the parties.³⁵

Port State Measures Agreement

The 2009 FAO Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (Port State Measures Agreement)³⁶ is the most recent international instrument to be negotiated.

The Port State Measures agreement was approved in November 2009 by the FAO Conference. Immediately following its approval, the agreement opened for signature and remained open for one year. In that period 23 countries signed it. Currently, it has one ratification, one approval and two accessions. It will enter into force 30 days after the date of the deposit of the twenty-fifth instrument of ratification, acceptance, approval or accession with the depositary, the Director-General of FAO.

The purpose of the Port State Measures Agreement is to combat IUU fishing through the implementation of effective port state measures. The intention is that the agreement will be applied by parties, in their capacities as port states, for vessels not entitled to fly their flags.³⁷ It will apply to these vessels when they are seeking entry to parties' ports or while they are in port. If implemented effectively, the agreement will stem or block the flow of IUUcaught fish into national and international markets. By making it more difficult to market fish, the economic incentive to engage in IUU fishing should be reduced. Port State measures, if used in conjunction with CDSs, should have the potential to be one of the most cost-effective and efficient means of combating IUU fishing.

Regional cooperation and action

Efforts to prevent, deter and eliminate IUU fishing rely heavily on effective regional cooperation among countries by encouraging harmonized standards, meas-

ures and procedures against IUU fishers who exploit weak regional governance. The implementation of harmonized and coherent regional measures can shut out IUU fishers from a region. For this reason countries are encouraged to cooperate closely in matters relating to sustainability so that opportunities for IUU fishers to unload, tranship and process catches are reduced or eliminated. RFBs and RFMOs are the mechanisms to promote regional cooperation against IUU fishing.

RFBs

RFBs such as the Pacific Islands Forum Fisheries Agency (FFA), Permanent Commission for the South Pacific (CPPS), Western Central Atlantic Fishery Commission (WECAFC) have dedicated fisheries mandates. Other organizations such as the Asia-Pacific Economic Cooperation (APEC),³⁸ the Caribbean Community and Common Market (CARICOM) and the Southern African Development Community (SADC) have wider social and economic mandates that include fisheries. All of these organizations promote regional fisheries cooperation, harmonization of activities and work to galvanize regional action against IUU fishing.

For the last 20 years FFA has had measures in place to combat IUU fishing, or what was known more euphemistically in the UN in the 1980s as 'unauthorized fishing in zones of national jurisdiction'. Initial FFA estimates of illegal fishing by Asian fleets on the rich tuna stocks of the Pacific Islands were reported in 1994. It was assessed that in 1990 under-reporting of tuna catches by the main fleets operating in the Pacific Islands was in the range of 15-79 per cent while non-reporting was estimated to be in the range of 5-75 per cent.

These are staggering estimates. The pillage of resources by foreign fleets and the limited capacity of small island developing states to regulate and control access to their national waters led directly to FFA members implementing what is today recognized as the most effective regional MCS programme in the developing world. In the Caribbean, CARICOM

Ministers approved the Declaration on Illegal, Unreported and Unregulated Fishing for CARICOM Members States. The declaration was timely; despite a 2004 regional FAO workshop in Trinidad and Tobago on the need for, and how to, elaborate NPOAs-IUU, FAO is aware that only one country in the region (Antigua and Barbuda) developed a NPOA-IUU.

In West Africa, IUU fishing is rampant. It thrives on a number of factors (that are not unique to the region). Some of these include poorly conceived policies and measures to address IUU fishing, outdated legislation, limited human and financial resources to manage fisheries, and low sanctions that do not act as effective deterrents.

The scope and effect of inadequate governance and management structures in West Africa have been documented extensively, together with the impact of IUU fishing by foreign industrial fleets on small-scale fisheries and the livelihoods of coastal communities.

RMF0s

RFMOs³⁹ are engaged in frontline efforts to combat IUU fishing. Their scientific analysis on the status of fish stocks is undermined by IUU fishers' activities, which in the extreme, has the potential to render conservation and management measures futile. RFMOs have made recommendations, resolutions and adopted management measures relating to IUU fishing by parties and non-parties, the development of lists of 'black' (banned) or 'white' (authorized) vessels, the implementation of CDSs, and the unauthorized transhipments of catch and crew. In some RFMOs, IUU fishing by parties' vessels is highly problematic. It is not solely a problem of non-party vessels.

Tuna RFMOs seek to collaborate directly in real-time because of the high mobility of tuna fishing vessels across the world's tuna fishing grounds. In the past vessels that infringed conservation and management measures in one convention area could move rapidly to another area with impunity. The existence of means to share

real-time information and the enhancement of global IUU fishing vessel lists will close loopholes and strengthen the capacity of tuna RFMOs to deal with IUU fishers.

Market-related measures

The IPOA-IUU calls for the implementation of internationally-agreed market-related measures (consistent with principles, rights, and obligations established by the World Trade Organization) to prevent IUU-caught product being traded or imported. The IPOA-IUU suggests that trade-related measures could include the adoption of CDSs, as well as import and export controls or prohibitions.

During the IPOA-IUU negotiations, however, the internationally-agreed market-related measures were highly controversial. Some states, particularly developing countries, feared that these measures could be used discriminatorily against them. But there has been no evidence that unilateral measures to block the entry of IUU-caught product into countries have been abused.

Rather, given the lack of progress that has been made against IUU fishing, responsible unilateral measures have been welcomed by the international community to stem the growth of IUU fishing and to reduce the incentive for IUU fishers to engage in criminal activity. These measures are a recent development and are likely to become more common as countries, increasingly frustrated by the spread and impacts of IUU fishing, seek to block market entry for IUU-caught product.

In 2008 the European Council took a forward-looking step against IUU fishing in approving Regulation No 1005/2008. With effect from 1 January 2010, the regulation permitted marine fisheries products to be imported into, or exported from the EU, only if they had been validated by the flag or exporting state. 40

The regulation provides for heavy penalties for EU fishers who engage in IUU fishing anywhere in the world. A list of non-compliant vessels and flag states

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that fail to combat IUU fishing has been developed. Although the EU provided considerable advance notice to countries exporting marine products to the Union, many of them have encountered difficulties in complying with the regulation's rigorous requirements.

New requirements were introduced by Chile in 2009 for imports of aquatic species or by-products. Imports now require a certificate of legal origin verifying that the imported product was captured or harvested pursuant to national and international regulations applicable in the country of origin. If fisheries products verification is required, the species or raw material used, and the manufacturing processes, must conform with the new regulations.

In its efforts to beat IUU fishing, the United States of America in 2009 published its first biennial US Congress report of countries identified as having vessels engaged in IUU fishing. The report included the six countries whose vessels had engaged in IUU fishing in 2007 and 2008, together with a description of efforts taken by the countries to take corrective action. If countries have been identified as having vessels engaged in IUU fishing, the US Government will work withthose countries to take remedial action against IUU fishing.

However, if a country does not take action the US Government could invoke import sanctions unilaterally on fisheries products. At the completion of the process the US Government will certify each of the countries as either having adopted effective measures against IUU fishing or as having vessels still engaged in IUU fishing. In the latter case the country's vessels could be denied entry into US ports and fisheries imports prohibited.

In September 2011 the EU and the USA agreed to coordinate activities.⁴² They agreed to work together towards improving and expanding multilateral catch documentation and certification requirements, including electronic schemes. A joint statement underscored the serious

threats posed by IUU fishing.

Sanctions

The IPOA-IUU calls on countries to have effective national legislation to address IUU fishing and urges countries to adopt sufficiently severe penalties to combat the problem. The possibility of using a civil sanction regime, based on administrative penalties, is proposed.

But many developing countries have fisheries and related legislation that is outdated. Often, lists of infringements are obsolete and sanctions are low, being based on cost structures and approaches to sanctions and penalties from another era. Legislation in some countries has not been reviewed and revised for several decades. It tends to be narrow in focus, not catering for the rapid changes that have taken place in fisheries and the growth of non-sustainable fishing practices. Legislation of this nature does not deter IUU fishing. Rather, sanctions, if imposed, are lenient and regarded as a cost of doing business. IUU fishers incorporate fines into the total cost function along with other operational costs such as fuel, wages, port fees, vessel depreciation and insurance.

For some 30 years, the FAO has had a programme to assist developing countries in revising and redrafting fisheries legislation. In lieu of low monetary fines for infringements, countries have been urged to provide mandatory penalties in redrafted legislation that are substantial and require, for example, the confiscation of vessels and catches, cancellation of fishing authorizations and financial penalties of a high order commensurate with the nature of the crime and the quantity and value of the fish harvested. The use of mandatory provisions assists fisheries and legal personnel to administer legislation, reducing the possibility for corrupt behaviour, which encourages IUU fishing and other irresponsible fisheries practices.

In many countries judicial process is slow, bogged down with court cases extending back over months and years. The FAO and the IPOA-IUU also encourage coun-

tries to consider the use of more efficient and less costly administrative penalties as an alternative to judicial proceedings. By using this approach, penalties can be handed down swiftly, even within a few days, as opposed to months under sluggish judicial systems.

Stakeholder participation

The stakeholder groundswell against IUU fishing has been unprecedented in the fisheries sector. It has been one of the few fisheries issues where there has been consistent opposition and persistent demand for action. Coastal States, DWFNs, importing states, industry groups, labour and environmental organizations have called in unison for concrete measures and tough action against IUU fishers.

As an objective and principle, the IPOA-IUU encourages broad stakeholder participation and coordination. For maximum effect the IPOA-IUU stresses that it should be implemented by countries either directly or in cooperation with other countries, and indirectly through RFMOs, FAO and other international organizations. The IPOA-IUU underscores the need to involve all stakeholders, nominating in particular industry, fishing communities and non-governmental organizations (NGOs).

Many national and international industry groups have been active in promoting actions to stifle and frustrate IUU fishing. In addition, the International Collective in Support of Fishworkers (ICSF) compliments the activities of the industrial groups in their opposition to IUU fishing. The ICSF's primary focus is promoting sustainability in small-scale fisheries, including monitoring, assessing and verifying the impacts of IUU industrial fishers on fish workers and small-scale fishing communities. The collective's role is important in ensuring that fishers and communities most damaged by IUU industrial fishing are not discounted or overlooked.

Global environmental organizations and NGOs with a market orientation including the Marine Stewardship Council and Friends of the Sea have also worked to sensitize the international community and consumers about IUU fishing and related matters. ⁴³ Coupled with international NGOs action, national and regional NGOs and projects such as Stop Illegal Fishing, operating in the Southern African region, have taken notable and complimentary action.

Environmental crime

While there is not universal agreement, there is a broadening international consensus that IUU fishing is an environmental crime and its perpetrators should be treated as criminals.⁴⁴

Underscoring its importance as an international fisheries issue, the UN, starting in 2008 in its sustainable fisheries resolution, referred to the relationship between international organized crime and IUU fishing in certain regions of the world. The draft 2011 resolution was expanded to refer to a transnational organized crime in the fishing industry. Citing a UN Office for Drugs and Crime study, the draft resolution noted that there were reported instances where human trafficking in persons on board fishing vessels were linked to marine living resource crimes, that transnational organized criminal groups were engaged in marine living resource crimes in relation to high value, low volume species such as abalone, and that some transnational fishing operators were engaged in marine living resource crime.45

Capacity development

Developing countries require assistance to develop, draft and implement policies, legislation and measures against IUU fishing. The IPOA-IUU provides guidance to the international donor community in areas, identified by developing countries, where assistance might be directed.

In terms of FAO's capacity-development assistance, contributions tend to be short-term, focusing on human resource development and, in some cases, the provision of capital assets to enhance institutional capabilities. In contrast, ightly focused

"While there is not universal agreement, there is a broadening international consensus that IUU fishing is an environmental crime and its perpetrators should be treated as criminals."

"Monitoring, assessing and verifying IUU fishing is not an easy task."

bilateral assistance programmes tend to be longer-term, well-funded, addressing sustainability in a broader context, including IUU fishing. Often, bilateral programmes have a significant capital component and opportunities for longer-term training and education.

Article 21 concerning the capacity needs of developing states is a central component of the Port State Measures Agreement. The article seeks to promote the effective participation of developing state parties in the agreement and, at the same time, ensure that harmonized regional approaches to implementation are fostered. At the request of the 2011 COFI session, FAO convened an informal open-ended meeting in November 2011 to consider issues relating to the implementation of Article 21.46

The meeting was productive but unfortunately not well attended by developing countries, especially by African countries, which had requested the meeting. Its outcome will be considered by COFI in 2012. It is possible that a dedicated fund will be established to support the implementation of the Port State Measures Agreement after it enters into force. The fund is likely to be modelled on the Part VII Fund established under the Fish Stocks Agreement which has been operating successfully for more than five years.

Assistance to implement international instruments is a key consideration if regional processes are to be strengthened. Moreover, capacity development is an evergreen activity. For success, it requires reinforcement and repetition given the high turnover of staff in some national fisheries administrations resulting from movements in the civil service, transfers to the private sector and, in some cases, overseas migration.

Conclusion

Monitoring, assessing and verifying IUU fishing is not an easy task. This is because of the nature of the fishing activities and the protection afforded to IUU fishers by vast tracts of ocean, at-sea laundering of IUU-caught product (transshipment and

repackaging to disguise the product origin), inexpensive and easy access to 'flags of non-compliance' that encourages flag 'hopping', and the existence of 'ports of non-compliance' that have little concern for the illicit operations of the vessels they service and support. Coupled with these considerations is the high cost of surface and air surveillance that is beyond the financial reach of many countries.

There is little stigma attached to IUU fishing and there has been a reluctance in some RFMOs to adopt 'name and shame' policies. This situation encourages IUU fishing. At the same time, IUU fishers have access to excellent operational and market intelligence. They have the capacity to switch fishing areas quickly and change gear. Their fishing activities are directed professionally because of the high financial stakes.

At the 2011 CCAMLR session an EU representative said that IUU fishing will not be defeated on the water. Rather tackling this proble, will come through the application of port state measures and CDSs. Both of these tools should limit market access for IUU-caught product. If it cannot be sold, or only marketed with difficulty, the incentive to engage in IUU fishing will be diminished.

Is progress being made to reduce the incidence and extent of IUU fishing? This is a difficult question to answer. It is clear that in some areas of the world IUU fishing is being beaten. These areas include CCAMLR and NEAFC convention areas where conservation and management measures to combat IUU fishing—including for example, the use of vessel lists, transhipment prohibition, implementation of port measures, and the flag state certification of catches—have taken root and are effective.

In other areas, the incidence of IUU fishing remains high and is expanding. In the Pacific Islands region the FFA has assessed that IUU fishing continues to affect the resources and the livelihoods of Pacific Islanders. A similar situation is found in West Africa. These examples in the

developing world are not the exception but rather the norm. They imply there is a long and difficult road to travel before major impacts are made on moderating IUU fishing, or until it is eradicated.

Footnotes:

1. Senior fishery Liaison Officer, Fisheries and Aquaculture Department, FAO, Rome, Italy. The views expressed in this article are those of the author and do not represent necessarily the views of FAO or any of its Members. The author has served as secretary of all FAO Expert and Technical Consultations, and other meetings, relating to IUU fishing, port state measures and flag state performance. The author recognized research assistance provided by Laura Antonini, FAO consultation. 2. FAO. 2001. International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. FAO. Rome. 24p. Although a definition of IUU fishing was developed prior to the Sydney meetingand refined by experts during it—the Rome Technical Consultation initially decided to discard it. However, since delegations were uncomfortable that a new instrument addressing IUU fishing would not define the term, a working group was formed within the consultation to propose a definition. Consequently, the working group proposed to the Technical Consultation that the definition in the IPOA-IUU be accepted. The definition was agreed although it was considered far from perfect. 3. Edeson. W. 2001. The International Plan of Action on Illegal, Unreported and Unregulated Fishing: The Legal Context of a Nonlegally Binding Instrument. International Journal or Marine and Coastal Law. 16(4). pp.603-623. 4. This data consideration excludes fisheries that are classified 'data poor' or 'data deficient'. These terms refer to fisheries where stock assessments are not feasible, yet they provide continuing yields for fisheries. See Seafish. Available on 1 December 2011 at: http:// www.seafish.org/retailers/responsible-sourcing/ protecting-fish-stocks/data-deficient-fisheries 5. FAO. 1995. Code of Conduct for Responsible Fisheries. FAO. Rome. 41p. 6. FAO. 1999. The Rome Declaration on the Implementation of the Code of Conduct for Responsible Fisheries. FAO. Rome. 5p. 'Flags of convenience' are now more commonly referred to as 'flags of non-compliance'. 7. Since 2003 there has been a significant overall decline in IUU fishing in the CCAM-LR convention area owing to the success of conservation and management measures. 8. MRAG and the Fisheries Ecosystems Restoration Research Fisheries Centre, University of British Columbia. 2008. The Extent of Illegal Fishing: Final Report. MRAG. London. 33p. 9. On 1 January 2012 FAO had 191 Members and one Member Organization, the European

Union and two Associate Members, The Faroe Islands and Tokelau.

10. In the CARICOM region, for example, the extent of IUU fishing is not quantified. At the national level, there is limited capacity to assess the extent of such fishing, but in all states, the fisheries authorities report that IUU fishing is considered significant. See Combating Illegal Fishing in the CARICOM Region. Available on 1 December 2011 at: http://www.agriculture.gov.vc/

11. FAO. 2010. The State of World Fisheries and Aquaculture 2008. FAO. Rome. 176p. 12. UN. 1992. Earth Summit Agenda 21 The Programme of Action from Rio. UN. New York. 294p.

13. UN. 2003. Johannesburg Declaration on Sustainable Development and Plan of Implementation of the World Summit on Sustainable Development. UN. New York. 88p. 14. FAO. 2004. National plans to combat illegal, unreported and unregulated fishing: Models for coastal and small island developing states. FAO/FishCode Review No 6. FAO. Rome. 67p.

15. FAO. 2005. Model Plan for a Pacific Island Country: National plan of action to prevent, deter and eliminate illegal, unreported and unregulated fishing. FAO. Rome. 43p. 16. RPOAs-IUU known to FAO includes the European Community Plan of Action, the Lake Victoria Fisheries Organization, and the Regional Plan of Action to Promote Responsible Fishing Practices (including Combating IUU Fishing) in Southeast Asia.

17. Cochrane, K L and David J Doulman. 2005. The rising tide of fisheries instruments and the struggle to keep afloat. Philosophical Transactions of the Royal Society B. London. 360. pp.77-94.

18. Swan, J. 2004. International systems for monitoring and verifying fisheries agreements. Verification Yearbook. www.vertic.org/pages/homepage/programmes/environment/environment-publications.

19. FAO. 2002. Implementation of the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. FAO. Rome. 122p.

20. FAO. 1999. International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries, International Plan of Action for the Conservations and Management of Sharks, International Plan of Action for the Management of Fishing Capacity. FAO. Rome. 26p.

21. Marine and inland capture fisheries are those fisheries based on the harvest of wild fish stocks.

22. Aquaculture product certification seeks to

ensure that product meets specified minimum standards, usually with respect to quality and safety. However, certification can address also other issues such sustainability, environmental and labour issues, and animal welfare.

23. FAO. 2001. Report and Papers presented at the Expert Consultation on Illegal, Unreported and Unregulated Fishing. FAO Fisheries Report No 666. FAO. Rome. 306p.

24. FAO. 2000. Report of the Technical Consultation on Illegal, Unreported and Unregulated Fishing. FAO Fisheries Report No 634. FAO. Rome. 39p.

25. FAO. 2001. Report of the Second Technical Consultation on Illegal, Unreported and Unregulated Fishing. FAO Fisheries Report No 646. FAO. Rome. 38p.

26. FAO. 2001. Report of the Twenty-fourth Session of the Committee on Fisheries. FAO Fisheries Report No 655. FAO. Rome. 87p. 27. FAO. 2004. Report of the Technical Consultation to Review Port State Measures to Combat Illegal, Unreported and Unregulated Fishing. FAO Fisheries Report. No. 759. FAO. Rome. 34p.

28. FAO. 2007. Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing. FAO. Rome. 46p. 29. FAO. 2009. Report of the Expert Consultation on Flag State Performance. FAO Fisheries and Aquaculture Report No. 918. FAO. Rome. 94p. The consultation further agreed upon draft criteria for flag state performance, processes for conducting assessments, post-assessment actions and assistance to developing countries to improve their performance as flag states. The experts considered that these criteria and actions should form an appropriate framework for review by a Technical Consultation.

30. UN. 1983. The Law of the Sea: United Nations Convention on the Law of the Sea. UN. New York. 224p.

31. The Technical Consultation met again in March of this year. It should be noted that all FAO post-UNCED instruments have relied heavily on extra-budgetary funding for their negotiation and conclusion. FAO regular programme funds (for example, staff time) are used to support the organization of meetings but the direct costs (translation, interpretation, security and so on) are funded from extra-budgetary sources.

32. FAO. 1993. Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas. FAO. Rome. 12p. As at 18 May 2012 the Compliance Agreement had 39 acceptances, including the EU.

33. The full name of the Fish Stocks Agreement is the 1995 UN Agreement for the

Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. FAO and UN. 1998. International Fisheries: Instruments with Index. UN. New York. 110p.

34. As at at 18 May 2012, 78 countries had ratified or acceded to the Fish Stocks Agreement.

35. UN. 2010. Report of the Resumed Review Conference on the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Available on 16 December 2011 at: http://www.un.org/Depts/los/convention_agreements/review_conf_fish_stocks.htm
36. FAO. 2009. Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. FAO. Rome. 100p.

37. The relevant provisions of the 1982 Convention apply prior to, and after, the entry into force of the Agreement on Port State Measures, as reflected in the preamble to the Agreement.

38. APEC has undertaken a comprehensive and in-depth studies on IUU fishing in the APEC area. A notable example is the Assessment of Impacts of Illegal, Unreported and Unreported Fishing in the Asia-Pacific. APEC Fisheries Working Group. 2008. Singapore. 105p.

39. RFMOs are intergovernmental organizations constituted to conserve and manage designated fish stocks. They promote cooperation among countries that have an interest in the stocks, primarily in their capacities as coastal states and distant-water fishing nations. RFMOs monitor, assess and regulate the stocks they conserve and manage. They adopt conservation and management measures for the fisheries based on the stocks. These measures are intended to ensure that fisheries are conducted in an orderly and rational manner and that stocks are harvested in a long-term sustainable manner.

40. Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999. Available on 1 December 2011 at: http://eur-lex.europa.eu/LexUriServ/

41. US Department of Commerce. 2009. Implementation of Title IV of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006. Washington DC. 111p. plus annexes. 42. EU and US join efforts against illegal fishing. Available on 1 December 2011 at: http://ec.europa.eu/commission_2010-2014/ damanaki/headlines/press-releases/2011/08/ 43. These NGOs provide certification, so-called eco-labels, for certain fish stocks. The certification seeks to guarantee that the stocks, usually taken in industrial fisheries, have been harvested from sustainably managed fisheries and not by IUU fishing. The certification is important because it can provide a market advantage for certified product over non-certified product as some consumers will only purchase product that is certified. Small-scale fisheries and their communities are disadvantaged by certification in export-orientated fisheries because they have difficulty in meeting certification standards. 44. For example, Australia, Canada, European Union, Norway, United Kingdom and United States of America. 45. UN Office on Drugs and Crime. 2011. Transnational Organized Crime in the Fishing Industry. UNODC. Vienna. 140p. 46. FAO. 2011. Report of the Informal Open-ended Technical Meeting to Review Draft Terms of Reference for the Ad Hoc Working Group Referred to in Paragraph 6

Transnational Organized Crime in the Fishing Industry. UNODC. Vienna. 140p.
46. FAO. 2011. Report of the Informal Open-ended Technical Meeting to Review Draft Terms of Reference for the Ad Hoc Working Group Referred to in Paragraph 6 of Article 21 of the 2009 Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (the Agreement) and Draft Terms of Reference for an Appropriate Funding Mechanism referred to in Article 21 of the Agreement to Assist Developing States Implement the Agreement. FAO Fisheries and Aquaculture Report. No. 989. FAO. Rome. 18p.

Editor

Larry MacFaul

Design

Richard Jones

ISSN

1740-8083

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About this paper

This paper provides a review of action to combat illegal, unreported and unregulated (IUU) fishing, focusing largely on national initiatives. It considers the assessment, monitoring and verification of IUU fishing, reviews the role of regional cooperation and action, and considers the issue of sanctions and other penalties designed to deter IUU practices. This paper argues that monitoring, assessing and verifying IUU fishing is not an easy task, especially in the face of the high financial stakes that encourage and facilitate such activities.

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Current funders Department of Foreign Affairs and International Trade Canada, Joseph Rowntree Charitable Trust, Norwegian Ministry of Foreign Affairs, UK Foreign and Commonwealth Office (Strategic Programme Fund), US Department of State (Federal Assistance Award).

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