

## Executive Summary

Despite national and international efforts, fish piracy continues to thrive worldwide. Illegal, unreported and unregulated (IUU) fishing is a problem that affects both territorial and international waters, and involves all types of fishing vessels, regardless of their registration, size or state of repair. IUU fishing depletes global fish stocks and undermines efforts to secure and rebuild those stocks for the future. In doing so, IUU fishing activities generate harmful effects on the economic and social welfare of those involved in legal fishing, and reduces incentives to play by the rules.

The issue of fish piracy has moved to the forefront of the international fisheries policy agenda. In recent years, governments around the world have recognized the gravity of the problem and have stepped up efforts to combat it. While earlier studies focused primarily on the direct impact that IUU fishing has on fish stocks and on legal measures to combat such activities, this study focuses on the economic and social aspects of fish piracy and identifies the forces that drive the high seas IUU fishing industry. Even in an industry as opaque as this, the bottom line is clear; fish pirates pursue their activities because it is profitable, and will keep pursuing it as long as their revenue exceeds their costs.

### 1. IUU fishing has important economic, environmental and social effects

Estimates of the size of the IUU catch and of its impact on the environment vary widely. The data suggest that high seas IUU fishing is mainly concentrated on a few high-value species, such as Patagonian toothfish and tuna. The Food and Agriculture Organization of the United Nations reports that overall, IUU fishing accounts for up to 30 per cent of total catches in some important fisheries, and that catches of particular species could be up to three times the permitted amount. However, it is clear that any size of unregulated catch threatens the sustainability of world fish stocks and undermines attempts to manage resources. The marine ecosystem also suffers potentially adverse effects, especially through mortalities of seabirds, marine mammals and sea turtles.

The economic and social impact of high seas IUU fishing is equally important, and often far greater than what can be measured. Because of their lower operating costs, IUU fishers gain an unjust economic advantage over legitimate fishers. Legal fishers rely on the same fish stocks as IUU operators do to make their living. In the short-term, competition with a fish pirate could mean a smaller catch, lower income and lower employment in communities that rely on the legal trade. The effect may be even more serious in the longer term, as fish stocks become overexploited or severely depleted. As a consequence legal fishers will then have to reduce their activity or even stop operating. The consequences can be especially severe in parts of the world where there are few alternative means of making a living. At the same time, high seas IUU operators often exploit fishers from developing countries as many of the crew on IUU vessels comes from poor parts of the world. Because they have few other employment options, they

work on IUU vessels for low wages and in extremely poor living and working conditions to such an extent that they are considered bonded labor.

## **2. IUU fishing persists because it pays**

The economic model developed in this report is based on a relatively simple premise: That fishers get involved in IUU fishing because they earn higher profits by plying their trade outside national and international regulations than they could by working within the rules. On deeper analysis, the economic model identifies two major forces driving IUU fishing.

Firstly, there is a global imbalance between the capacity to fish and the opportunities available for fishing. Much of this overcapacity can be traced to poor domestic fisheries management including a lack of incentives to scrap vessels or the inappropriate allocation of fishing rights. The problem is also self-perpetuating. As fish stocks become scarcer, partly because of IUU fishing, fish quotas may decline further for compliant vessels. This can create incentives for legal operators to resort to IUU fishing. However, because the operating costs for IUU fishers are less, IUU operators can afford to increase their effort to maintain catches.

Secondly, the international regulatory framework for the high seas is incomplete and inadequately applied. As a result, certain fishing activities are beyond the reach of national and international regulations.

Unlike their counterparts who fish legally, IUU vessels face extra costs to avoid being caught, to bribe officials and in the loss of reputation. However, the fish targeted on the high seas by IUU fishers, in general, have a very high market value. This factor, in connection with the lower operating costs faced by IUU fishers, more than offsets the relatively low costs of avoidance and fraud. Recently, organized IUU fishing operations have emerged. These operations enjoy reduced operating costs, increased access to sophisticated communications technology to avoid detection, and access to bulk processing facilities, and could accelerate the development of IUU fishing. A list of the main institutional, economic and social factors creating incentives for the IUU fishing is given in Box 1.

## **3. Possible Actions Against Illegal, Unreported and Unregulated Fishing**

There are already many national and international laws and regulations in place designed to combat illegal, unregulated and unreported fishing. However, in many cases the practical implementation is still lacking and even if implemented the effect is largely unknown. Even where the political will exists there is still a long way to go in translating that will into concrete action.

**Box 1. Main Institutional, Economic and Social Factors Creating Incentives for IUU Fishing**

- Existence of excess or idle fishing capacities, which incite operators to engage in IUU activities to get higher revenues and which reduce fishing vessels and crew cost.
- Incompleteness of the international legal frameworks.
- Ineffective flag state control over vessels which allows operators engaged in IUU fishing activities to face reduced operating and risk cost.
- Insufficient or ineffective enforcement of national and international regulations (including low Monitoring, Control and Surveillance capacities and low level of sanction), which reduce the cost of risk faced by IUU operators.
- Existence of tax havens and other non-cooperative practices, which may provide IUU operators with low tax and reduce the cost of risk.
- Prevalence of poor economic and social conditions in some countries, which reduces the cost of fraud, crew costs, the cost of risk and the costs associated with maintaining appropriate safety and working standards.
- Existence of subsidies that reduce the cost of IUU fishing capacity.
- Existence of fiscal and foreign investment rules that reduce the cost of IUU fishing capacity.
- Underestimation and non-internalisation of the social cost generated by IUU fishing activities, which reduce the moral/reputation cost IUU operators might face.

Measures available to combat IUU fishing cover legal, institutional, economic and social dimensions and require the involvement of national, regional and international fisheries authorities. Box 2 provides a range of possible measures, grouped according to their point of impact on the economic operation of IUU fisheries. This includes measures aimed at reducing potential revenues and increasing operating costs and capital costs. Given the limited budgetary resources available, it is important to determine the cost-effectiveness of different approaches in order to identify the most cost-effective options. At the same time, it is important not to forget that preventive actions also have cost and income effects on legal operators and on society at large that will need to be assessed and taken into account.

#### 4. Which way to go?

In order to identify the most cost effective ways forward for national and international authorities in addressing the IUU problem, it is useful to analyse the constituent three elements of the “IUU” concept separately i.e. look at the measures to address illegal fishing, unreported fishing and unregulated fishing one by one. Such a disaggregated approach serves to highlight the varied nature of the IUU problem and the need to draw on a range of regulatory responses at all level of government.

##### *Illegal Fishing Activities*

##### *Actions by national states*

To deal with foreign illegal fishing activities, three options are open to national authorities:

- Increase the amount of surveillance to increase the risk of being caught;
- Increase penalty levels to reduce expected returns for illegal operators; and
- Apply trade measures.

#### *RFMO actions*

In addition to increased surveillance and enforcement by members of the RFMO, contracting parties also need to take action as the RFMO itself has no “penalty” capacity (e.g. fishing fines, confiscation). The responsibility for such actions remains with nation states. RFMOs could also consider reducing the allocations (collective penalty) or excluding the flag state of any vessel involved in illegal activity from some of the benefits of membership. Detecting illegal activities is a major problem, and one which can only be improved through additional surveillance. In this regard, onboard observer coverage may offer some help to improve direct surveillance.

Trade and catch documentation schemes can offer a tractable way forward for dealing with illegal catch from RFMO areas; however it is important to ensure that all parties in the chain of custody play an active role in not carrying “illegal fish”.

#### ***Unreported Fishing Activities***

##### *Actions by national states*

A framework is already in place which may allow for capturing the un-reported or misreported part of the problem, although the enforcement of existing rules and frameworks need to be stepped up. In the meantime there is still a need to improve the ability of fisheries management authorities to use this information for stock assessments. In this regard closer co-operation between private operators in the chain of custody (processing plants, wholesalers and supermarkets) may offer some payoff. Finally, increased use of on-board observers could be a way to improve the reporting of harvests.

**Box 2. The Study Proposes Measures that can be Entertained to Combat  
IUU Fishing Activities, including:**

**Reducing Revenues from IUU Fishing**

- Reduce incompleteness of current international frameworks and reducing the possibilities for FONC registration
- Provide NPA states with appropriate incentives for joining RFMOs and financial “compensation” for de-registering FONC vessels.
- Improve compliance with current national and international obligations through better Monitoring, Control and Surveillance (MCS) capabilities, including broader cross country cooperation.
- Banning imports
- Listing of banned vessels/companies and countries of origin
- Introduce catch and trade document schemes, and labelling
- Encouraging education and promotional campaigns

**Increasing Operating Costs of IUU Fishing**

- Eliminate tax havens
- Restrict accessibility to goods and services for IUU operators (fuel, landing, insurance, communications and navigation services etc).
- Ratification and implementation of conventions relating to crews on fishing vessels.
- Improve economic and social situation in countries/regions supplying cheap crews.
- Apply extra territorial domestic sanctions to citizens engaged in IUU operations.
- Make flag states legally liable for lack of appropriate insurance.
- Augment MCS capacities
- Increase penalties and sanctions (prison, confiscation of vessels and catch)
- Harmonise flag state fine levels
- Identify beneficial ownership of vessels
- Encourage private initiatives (including wanted rewards schemes)
- Improve knowledge of the social, economic and environmental consequences of IUU through education programs
- Use cooperate governance initiatives and guidance programs
- Apply the OECD Convention to combat bribery of foreign public officials.

**Increasing Capital Costs of IUU Vessels**

- Setting and enforcing minimum vessel standards (port state control)
- Reduce vessel capacity potentially available for IUU operations (scrapping and appropriate management regimes)
- Restricting outward investment rules on IUU vessel capital
- Restrict banking laws use of IUU vessel capital as collateral
- Make flag states legally liable for damage resulting from the lack of appropriate maintenance
- Improve macroeconomic conditions in countries supplying low cost crew.

*RFMO actions*

The different levels of responsibility between the RFMO and the member nations, and the fact that the cost is borne by all contracting parties may make detection of unreported catch difficult. The RFMO could also institute full observer coverage. There may, however, be related benefits generated through improved stock assessment and management, and a deterrence effect vis-à-vis potential “non-reporters”.

*Unregulated Fishing Activities*

The analysis suggests that embargoes and other trade-related measures can be effective and seem to act as an incentive to comply with rules. Actions by an RFMO and its members must include diplomatic demarches and co-opting the involved non-member country into membership or at least ensuring that vessels flying their flags follow the rules. In this regard the keeping of lists of vessels that fail to co-operate and their countries of origin (blacklists) may put some pressure on them and could also serve as a basis for the imposition of trade measures. However, this type of listing requires improved vessel monitoring and surveillance which may be costly to members of the RFMO.

To address governance gaps in high seas areas where no fisheries management arrangements exist, states should cooperate including through the establishment of RFMOs and/or extend the scope of existing RFMOs.

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In conclusion, in the OECD’s view a range of actions could be taken to more effectively combat the problem of fish piracy. These include:

- In combating illegal fishing activities, higher penalties, more efficient monitoring, control and surveillance measures, and the increased use of catch and trade documentation schemes seem to be the most promising avenues. Actions which increase the level of penalty and the costs to IUU operators could have the highest potential net payoff. However, in order to have long-lasting effects, a co-operative approach across countries is needed.
- In the case of unreported fishing, the better use of already existing systems to trace the origins of catches and more generalized use of on-board observers could be helpful.
- Private legal operators have a strong incentive to ensure that their markets are not undermined by IUU fish and should be co-opted into taking a more active role in combating IUU activities. More effort could be made to convince legal fishers to step up their own “naming and shaming” of IUU activities that affect their operations with a view to put moral pressure on illegal fishing operators and change the culture in the industry.
- Countries need to cooperate to include all interested parties in the work of the RFMOs and establish management arrangements in areas of the high seas that are unregulated.
- While more regulation, including monitoring, control and surveillance, may be a central part in the overall combat of IUU fishing activities, these may be costly to implement. Public authorities need to weigh their costs against the potential benefits.

However, it is clear from the work by the OECD Committee for Fisheries that, as long as the IUU operations are profitable, IUU fishing activities will be extremely difficult to completely eliminate. In the meantime, this Study has shed light on some of the tractable ways forward that could prove useful in the fight against IUU activities if put into practice by member countries and international fisheries management bodies. In the meantime, future work of the OECD's Committee for Fisheries will address additional aspects of the IUU challenge that can be useful in the further combat of this activity.