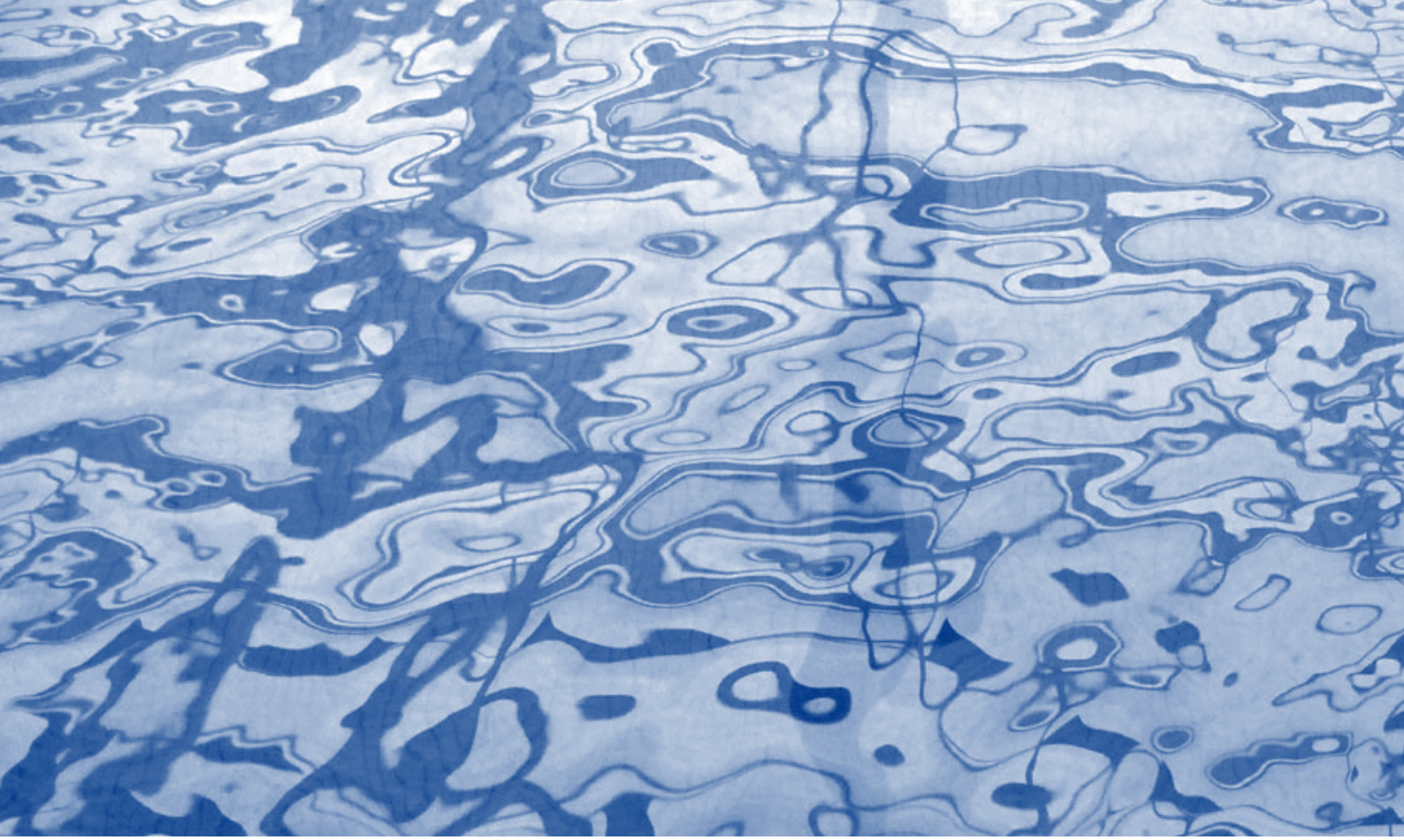
Saving deep sea resources

Governance arrangements to save the resources of our deep seas for current and future generations



Saving deep sea resources

Governance arrangements to save the resources of our deep seas for current and future generations

Duncan E.J. Currie, Greenpeace International, 7 Rangatira Terrace, St Andrews Hill, Christchurch, New Zealand, duncanc@globelaw.com; Lyn Goldsworthy AM, Deep Sea Conservation Coalition, 5 Pails Place, Gordon, ACT 2906, Australia, lyn.goldsworthy@ozemail.com.au; & Clare Henderson, Consensus Productions, P.O. Box 6045, O'Connor ACT 2602, Australia. clare.henderson@webone.com.au

Table of contents

Abstract	v
Introduction	1
Background	3
The australian position	7
Conclusion	17
References	19

Abstract

A critical overview of current and potential governance models to protect deep-sea biodiversity is presented with a particular focus on regulating the fishing practice of bottom trawling on the high seas. The paper looks at obligations of nation states under existing international law to protect the biodiversity of the high seas including the:

- United Nations Law of the Sea Convention;
- United Nations Fish Stocks Agreement; and
- Convention on Biological Diversity.

In addition a number of 'soft laws' are considered, as well as analysis of Regional Fisheries Management Organisations (RFMOs) to assess their effectiveness in protecting deep-sea biodiversity and ecosystem values. Consideration is also given to various ways of enforcing a moratorium on high seas bottom trawling. The paper finds that nation states have a legal responsibility and obligation to protect and preserve the marine environment of the deep seas. Yet, despite this obligation, existing international regulation is vague and governance on high seas fishing is minimal and there is little practical reporting of impacts. The paper concludes that in the short term a global UN moratorium on high seas bottom trawling is enforceable and the simplest method of addressing the environmental impacts of high seas bottom trawling until longer-term governance arrangements are put in place. In addition it is the only method that provides consistency with current obligations of nation states under existing international law.

Introduction

The Deep Sea Conservation Coalition (DSCC), an alliance of international nongovernmental organizations (NGOS), wants an immediate moratorium on high seas bottom trawling (HSBT) in order to halt the destruction of high seas biological diversity.

Bottom trawling is especially destructive of deep-sea habitats and species because the gear is designed to avoid damage to the net as it passes across the sea floor. To protect the trawl net from tearing, multi-ton plates, rollers and chains are dragged across the sea floor in order to catch the target species. Trawls can now be deployed in waters up to two kilometres deep. Because of the high degree of endemism on seamounts and the tendency of bottom trawl fleets to target fish populations that concentrate around areas rich in biodiversity, the extinction of countless known and unknown deep sea species can be expected. In addition to the demise of targeted fish species, bottom trawling is known for its high impact on non-target marine species. By-catch from a bottom trawl can typically include deep-sea sharks, squids, barnacles, shellfish, various bottom dwelling marine species and ancient corals. In short, high seas bottom trawling is resulting in the destruction of deep-sea ecosystems and high seas biodiversity.

A moratorium would provide time for:

- the scientific research necessary to understand the nature and extent of deep sea biodiversity; and
- to generate the internationally binding legal mechanisms necessary to regulate bottom trawling on the high seas in a sustainable and equitable way.

There are various enforcement aspects to implementing a moratorium on HSBT including:

- the definition of HSBT;

- the scope of a moratorium; and
- specific practical measures such as:
  - control over nationals;
  - monitoring, control and surveillance (MCS);
  - port state controls; and
  - trade related measures.

Some argue a UN moratorium on high seas bottom trawling will punish legal fishers and leave the oceans open to illegal, unregulated and unreported (IUU) fishers. Rather, a moratorium would be part of momentum for change and would operate as a catalyst for action to combat IUU fishing.

HSBT is currently an unregulated activity and a major portion of the catch is unreported. So a moratorium requiring action for enforcement is a move towards cohesive regulation – a move from uncertainty to certainty.

Background

The obligations of states under existing international law to protect the biodiversity of the high seas includes the:

- United Nations Law of the Sea Convention;
- United Nations Fish Stocks Agreement; and the
- Convention on Biological Diversity.

In addition there is a range of 'soft law' obligations under various conventions such as the:

- Code of Conduct for Responsible Fisheries;
- International Plan of Action to Combat Illegal, Unreported and Unregulated Fishing;
- Technical Guidelines on the Ecosystems Approach to Fisheries; and
- Agenda 21.

An overview of these legal and other governance arrangements for high seas fishing is outlined in a Greenpeace International report (Currie 2004). It argues existing international law obliges states to protect and preserve the marine environment of the deep seas. Yet despite this obligation existing international regulation is vague, governance of high seas fishing is minimal and there is little practical reporting of impacts.

A global moratorium on high seas bottom trawling will provide consistency with the obligations of states under international law. In addition there are a range of practical measures to enforce a moratorium until longer-term governance arrangements are put in place.

The need to consider practical interim measures is pertinent as over the last few years the United Nations General Assembly (UNGA) has been calling on the international community to urgently consider the risks to the

biodiversity associated with seamounts and other deep sea areas, particularly by the fishing practice of bottom trawling.

In 2002, recognising the vulnerability of deep sea biodiversity, the United Nations General Assembly (UNGA) called on the international community to urgently consider the risks to the biodiversity associated with seamounts and other deep sea areas.

The UNGA reiterated its concerns in 2003 and called on relevant global and regional organisations:

> "to investigate urgently how to better address, on a scientific basis, including the application of precaution, the threats and risks to vulnerable and threatened marine ecosystems and biodiversity in areas beyond national jurisdiction…".(UNGA A/RES/58/240).

In February 2004 the parties to the Convention on Biological Diversity (CBD) called on the UNGA to address the impacts of destructive practices impacting on deep-sea ecosystems. Referring to marine areas beyond the limits of national jurisdiction that have seamounts, hydrothermal vents, cold-water corals and other vulnerable ecosystems and features, the parties urged the UNGA to:

> "Urgently take the necessary short-term, medium-term and long-term measures to eliminate / avoid destructive practices, consistent with international law, on a scientific basis, including the application of precaution, for example, on a case by case basis, interim prohibition of destructive practices adversely impacting the marine biological diversity associated with the areas…" (COP Decision 2004).

By October 2004 negotiations in New York over the UNGA Resolutions on Sustainable Fisheries and Oceans and the Law of the Sea focused largely on how to deal with the threats to deep-sea biodiversity posed by high seas bottom trawling. The 2004 UNGA Fisheries Resolution called on states to:

> "take action urgently, and consider on a case-by-case basis, and on a scientific basis, including the application of the precautionary approach, the interim prohibition of destructive fishing practices, including bottom-trawling that has adverse impacts on vulnerable marine ecosystems, including seamounts, hydrothermal vents and cold-water corals located beyond national jurisdiction, until such time as appropriate conservation and management measures have been adopted in accordance with international law…" (UNGA A/59/L.22).

A week after the 2004 UNGA debate on oceans the Congress of the World Conservation Union (IUCN), with clear support from 62 countries, called on the UNGA at its 60th session [2005] to urgently adopt a resolution requiring an interim prohibition on high seas bottom trawling in areas not covered by RFMOs and at the 61st session [2006] a resolution to eliminate destructive fishing practices and an interim prohibition on high seas bottom trawling in areas covered by RFMOs and other management arrangements, until such time as effective conservation and management measures to protect the deep sea environment have been adopted in accordance with international law (IUCN 2004).

The 2005 UNGA oceans resolution reaffirmed the need for urgent action to address destructive practices having adverse impacts on marine biodiversity and ecosystems (UN A/60/L.22, 29). The fisheries resolution reiterated support for previous resolutions and urged accelerated progress on implementation (UN A/60/L.23). In 2006 a review by the United Nations Food and Agriculture Organisation (FAO) will consider progress on action taken by states to implement these UNGA resolutions.

So, at or following the Open-ended Informal Consultative Process on Oceans and Law of the Sea (UNICPOLOS) in 2006, a decision may be made to implement a moratorium on high seas bottom trawling. One of the questions often asked is how would a moratorium be enforced? This paper looks at some of the legal and practical issues of enforcement.

The australian position

Australia said in November 2005 at the UNGA that damaging impacts are caused by a range of destructive fishing techniques and by the ever-present scourge of illegal, unreported and unregulated fishing, and so actions should not focus simply on bottom trawling.

Australia also called for enhanced measures to tackle illegal, unregulated and unreported (IUU) fishing, noting that IUU fishing is not one problem but three; each requiring separate international responses.

A UNGA moratorium on high seas bottom trawling could act as a catalyst for the development and implementation of concrete measures to tackle IUU fishing. There are strong links between measures to tackle IUU fishing and enforcement of any HSBT moratorium.

Australia presented a National Plan of Action to Prevent, Deter and Eliminate, Illegal, Unreported and Unregulated Fishing (DAFF 2005) to the FAO Ministerial Meeting in Rome in March 2005. Australia regulates its fisheries at the federal level under the: Fisheries Management Act 1991; Fisheries Administration Act 1991, Environment Protection and Biodiversity Conservation Act 1999; the Quarantine Act 1908; Customs Act 1901; Crimes Act 1914; and Torres Strait Fisheries Act 1984.

Definition of HSBT

The first question is the definition of high seas bottom trawling. One earlier example is the UNGA ban on drift netting in 1991. The driftnet resolution simply called on members to "[e]nsure that a global moratorium on all large-scale pelagic drift-net fishing is fully implemented on the high seas of the world's oceans and seas, including enclosed seas and semi-enclosed seas, by 31 December 1992" (UN 46/215). The resolution relied on the good faith obligations of members to take steps to implement the moratorium. These

obligations are outlined in the Law of the Sea Convention article 300 and UN Charter article 2.

The Wellington Convention was more specific in prohibiting 'driftnet fishing activities' which included attempting to catch fish using a driftnet, and included engaging in any other activity which can reasonably be expected to result in the catching of fish with the use of a driftnet, and defined 'driftnet' as "a gillnet or other net or a combination of nets which is more than 2.5 kilometres in length the purpose of which is to enmesh, entrap or entangle fish by drifting on the surface of or in the water".

A similar approach could be taken in the case of deep sea bottom trawling with a definition of the proscribed activity referring to the equipment used. The European Union (EU) in its ban on bottom trawling near the Darwin Mounds defined it as "using an bottom trawl or similar towed nets operating in contact with the bottom of the sea" (Council Regulation No. 602/2004).

Some national legislation already provides scope for this. For example, the Australian Fisheries Management Act 1991 section 32 permits a condition relating to the methods or equipment that may be used to take fish.

Scope of a moratorium on HSBT

The scope of a moratorium on HSBT will have a considerable impact on its enforceability. For example, a moratorium on HSBT only directed at specific areas, such as where there is no coverage of RFMOs, will make enforcement very difficult as a vessel with HSBT gear onboard to fish could claim it was for fishing in some other area.

Practical considerations

A frequent concern with respect to fishing gear is how to differentiate between vessels fishing in EEZs where bottom trawling is permitted and those engaging in bottom trawling on the high seas. While there are some similarities between bottom trawl and mid-water trawl gear, the real issue is whether the gear is equipped for contacting the sea bottom, with rockhoppers and chafing gear.

It is therefore essential all vessels fishing on the high seas do not have any protective gear such as chafing gear or roller/rockhopper gear on board when the fishing vessel leaves port. Any vessels with bottom trawl gear onboard must provide clear evidence of a permit to fish inside the EEZ, be required to offload catch in the same port or a port recognised as enforcing the moratorium, and provide real-time Vessel Monitoring System (VMS) data on where they have been fishing to authorities prior to being permitted to off-load.

Transhipment at sea of the fish species targeted by bottom trawling would not be permitted.

Taking action against IUU fishing

IUU fishing has been estimated as costing US$4.2 billion in lost revenue each year (MRAG 2005). The value of pirate fishing from the international waters of the high seas alone is conservatively put at US$1.2 billion per year, being as high as 20% of the total value of the global catch of oceanic species in 2002 (FAO 2004). The impacts are felt by coastal fishing communities, distant water fishing nations and on the marine ecosystem itself. This problem led the FAO to adopt a voluntary international plan of action to combat illegal, unreported and unregulated fishing (IPOA-IUU) in 2001, which world leaders committed to implement in 2001 at the World Summit on Sustainable Development (WSSD) meeting. The G-8 leaders in Evian in 2003 committed to urgently develop and implement measures to address IUU fishing.

Enforcement measures for the moratorium could draw on measures such as these already agreed to, in particular the IPOA-IUU.

HSBT as IUU Fishing

A UNGA recommendation for a moratorium will carry considerable authority. It would form the basis for states and RFMOs to implement the recommendation, with these carrying legal force.

For instance where Australia implemented a moratorium in its legislation, HSBT by Australian nationals or Australian flagged vessels would be illegal. Even where fishing was carried out by non-Australian nationals on non-Australian flagged vessels on the high seas HSBT fishing would in most cases be unregulated and unreported and thus IUU fishing.

Measures to address HSBT are similar to those to address IUU fishing – they draw on the IPOA-IUU as well as the FAO Code of Conduct. The objective of both is to prevent, deter and eliminate IUU fishing. They require flag states to ensure only authorised vessels fish on the high seas.

The IPOA-IUU is relevant to high seas fishing which is largely unregulated except for some minimal regulations by a few RFMOs. It is particularly relevant to fishing using destructive practices where there are no applicable conservation or management measures.

If a HSBT moratorium is to work effectively, states and RFMOs will need to enforce instances of non-compliance.

The enforceability or otherwise of a moratorium is not in itself a reason for deciding not to recommend a moratorium. As stated earlier states have a legal responsibility and obligation to protect and preserve the marine environment of the deep seas.

High seas bottom trawling is currently an unregulated activity with a major portion of the catch unreported. Therefore to move from the *status quo*, widely acknowledged to be causing harm to biodiversity, to a moratorium requiring action and vigilance for enforcement, is a move towards cohesive regulation of the activity.

Similarly, implementing more rigorous regulation of fishing within EEZs may divert IUU operators to the high seas, however the response is to implement measures specifically aimed at IUU fishing.

A moratorium on HSBT could operate as a catalyst for action to combat IUU fishing, demanding greater regulation by flag states, control of nationals, addressing the issue of flags of convenience, and requiring the adoption of better port state controls and market measures.

In particular, a moratorium should be coupled with a call for the rapid development of monitoring, surveillance and enforcement measures which in particular would ensure that legally caught fish are able to be tracked and monitored and that fish without such cannot be landed.

Overall a moratorium on HSBT would complement measures against IUU fishing.

Enforcement Measures that may be taken Control Over Nationals (IPOA paras. 18, 19)

Fishing operations frequently involve many states:

- the flag state of the vessel;
- the states of registry of owner;
- operator and financing companies involved;
- the nationalities of the master and crew;
- the nationality of factory ships, supply ships;
- the states in which fish are processed and sold; and
- port states.

This is both a weakness and strength with respect to enforcement. An often-cited weakness is flag state control systems, where reflagging and corporate shells may be used to avoid flag controls. But it also provides opportunities for states to impose controls over the activity of their nationals, including corporations, and vessels registered in those states.

Making the activities of citizens abroad liable to domestic sanctions is a powerful disincentive and each state should take measures and cooperate to ensure that nationals subject to their jurisdiction do not support or engage in IUU fishing.

One simple step states can take is to establish national or regional regulations prohibiting fishing vessels flagged to their countries from fishing on the high seas in contravention of protection measures including prohibiting bottom trawl gear on fishing vessels under their jurisdiction licensed to fish on the high seas.

The IPOA-IUU provides a list of actions by states to combat IUU fishing including:

- ensuring nationals subject to their jurisdiction do not support or engage in IUU fishing;
- co-operating to identify nationals who are the operators or beneficial owners of vessels involved in IUU fishing;
- discouraging nationals from flagging fishing vessels under flags of convenience; and
- ensuring sanctions for IUU fishing by vessels and nationals are of sufficient severity to effectively prevent, deter and eliminate IUU fishing and to deprive offenders of the benefits accruing from such fishing.

The IPOA-IUU endorses action to discourage nationals from IUU fishing. Specific measures could include prison sanctions for nationals involved in HSBT in breach of the moratorium, including aiding and abetting, and depriving offenders of the benefits from such fishing, and sanctions could be extended to companies that do business with those that breach the moratorium. In other words, states should adopt measures to make it a violation to conduct HSBT fishing or to trade in fish or fish products derived from HSBT fishing.

EU regulations currently require EU member states to ensure appropriate measures are taken, including administrative action or criminal proceeding according to their national law, against natural or legal persons responsible. The regulations apply to vessels in EU waters and EU vessels in the high seas, but could be modified to apply to EU citizens wherever the vessel and whatever the flag.

Longer term measures can include increased transparency in registries and corporate shareholding to assist states effectively to monitor and control the activities of their nationals, such as by using taxation policy to force nationals to disclose their beneficial interests in foreign flagged vessels. Australia sought to make it a condition of prompt release of a foreign fishing vessel arrested for IUU fishing in Australian sub-Antarctic waters that the identity of the

real beneficial owner of the vessel be disclosed, but the International Tribunal for the Law of the Sea (ITLOS) held that such a 'non-financial' condition was not reasonable within the meaning of article 292 of the Law of the Sea Convention (Volga Case 2002).

The FAO Technical Guidelines for Responsible Fisheries likewise observe that under international law, each state is free to enact laws prohibiting its nationals from engaging in IUU fishing, even if the activity in question takes place aboard a foreign vessel or in waters under the jurisdiction of another state. Japan requires that nationals obtain the permission of the Japanese government before working aboard non-Japanese fishing vessels operating in the Atlantic Bluefin Tuna and Southern Bluefin Tuna fishing areas, and the US Lacey Act may subject a US national to criminal liability whilst aboard foreign vessels.

The technical guidelines recommend each state make it a violation for its nationals to engage in fishing activities that violate the fishery conservation and management laws of any other state or undermine the effectiveness of conservation and management measures adopted by a RFMO, and suggests that sanctions may include monetary fines, confiscation of fishing vessels and fishing gear and denial of future fishing licences.

Such legislation could go so far as to allow prosecution of nationals who land or attempt to land catch in the prosecuting country, even where the offence occurred in another country's waters. For instance, in Papua New Guinea, the master of a fishing vessel with a Papua New Guinea fishing licence was convicted and penalised for catching fish in Solomon Island waters without a Solomon Islands fishing licence and then bringing the catch into Papua New Guinea waters.

In order to enhance controls over nationals, states should exchange, pool and publicise information on vessels and companies involved in high seas bottom trawling (including the operators, captains and beneficial owners of such vessels, and those providing banking, insurance and other services to them) to allow appropriate action to be taken against them if they are found to have infringed conservation measures.

Another problem is avoiding port State controls through the transhipment at sea of fish caught by HSBT. IUU fishing boats can intermingle and effectively launder fish through transhipment. States and RFMOs could prohibit the transhipment at sea of any species caught by bottom trawl fishing on the high seas in contravention of biodiversity protection measures. Flag states could prevent their vessels from being involved in such transhipments, and states could control their nationals similarly.

RFMOs could follow the ICCAT model to recommend that contracting states' vessels only transfer to and receive from vessels of other contracting and co-operating parties or fishing entities.

Another potential problem is that nationals of states which do take measures to implement a moratorium reflag to non-compliant states. States should therefore adopt legislation making it illegal for nationals to re-flag vessels to avoid compliance with the moratorium.

Port state controls

Port states have extensive jurisdiction over activities and vessels in their ports.

Port states could conduct rigorous inspections of all ships who use port facilities. If inspections reveal evidence of fishing using bottom trawl nets or if a vessel is blacklisted by an RFMO, a number of measures could be taken. The 2005 FAO Port State Model Scheme suggests procedures and safeguards for port inspections, as well as grounds for enforcement measures. Suggested inspections include fishing gear, verifying fishing gear is in conformity with the conditions of any authorization and ensuring conformity with applicable regulations such as mesh size.

A number of actions can be taken consistently with international law.

1. vessels found to have caught fish with bottom trawl gear onboard should be prevented from bunkering and discharging or processing their catches. Such sanctions should be extended to support vessels including cargo vessels and tankers.
   a. The Port State Model Scheme suggests that a port state should not allow a vessel to use its ports for landing, transhipping or processing fish if the vessel which caught the fish is entitled to fly the flag of a state that is not a contracting or cooperating party of a RFMO or has been sighted as being engaged in or supporting IUU fishing activities in the area of that RFMO or in the waters under the jurisdiction of a relevant coastal state, unless the vessel can establish that the catch was taken in a manner consistent with the relevant conservation and management measures. Clearly a vessel which has engaged in HSBT has fished inconsistently with relevant conservation and management measures. This would include such fishing in waters beyond the limits of its fisheries jurisdiction.
   b. The scheme also suggests that a port state not allow a vessel to use its ports for landing or transhipment where it has been established that the vessel is identified by a RFMO as engaging in or supporting fishing activities in contravention with its conservation and management measures.

2. States could implement domestic legislation providing for punitive action, along the lines of the US Lacey Act.

a. The Lacey Act, as amended in 1981, makes it illegal to partake in the trade of fish, wildlife, or plants taken in violation of any US or Indian tribal law, treaty, or regulation as well as the trade of any of these items acquired through violations of foreign law. Sanctions include seizure of vessels and equipment involved in any violation and criminal penalties. National Marine Fisheries Service (NMFS) agents enforce the Lacey Act against foreign-flagged vessels that fish illegally in the EEZs of South Pacific island countries and import the fish into Guam and American Samoa, for instance, and against US fishermen who operate illegally in foreign waters, such as the Bahamas.

3. With respect to vessels intending to fish on the high seas or capable of doing so, port states can require production of the national authorization to fish on the high seas for the area in question, and for vessels coming from fishing in the high seas, additionally conduct specific inspections of fish caught. Under the FAO Compliance Agreement, no flag state is to allow any of its vessels to be used for fishing on the high seas without that state's authorization.

4. Port states could implement any measures agreed in any Memorandum of understanding (MOU) on port state control.

In addition, states should negotiate intergovernmental port-state enforcement agreements.

A port state MOU would go further than existing international law and allow detention of suspected HSBT vessels. It would also improve cooperation measures and put the legality of inspection and denial of port facilities beyond doubt. An MOU could improve the current permissive approach and make port state controls mandatory, and in addition help harmonize the various port state controls.

Monitoring, control and surveillance measures (IPOA-IUU para. 24)

RFMOs and states can and should monitor high seas fishing activities through monitoring, control and surveillance (MCS) measures such as through the effective implementation of vessel monitoring systems (VMS) and observer programs on their flag vessels and catch and trade certification programs.

The effective and widespread use of VMS to monitor vessel activity is important, particularly when monitoring for activities which may be proscribed in one area (the high seas) but not others (EEZs).

If states which grant licences to fish on the high seas require VMS equipment to be installed and maintained at all times as a condition of the licence, states and RFMOs would be in a strong position to monitor the actions of vessels. Any vessel claiming to have fished using bottom trawling

equipment in the EEZ where that is permitted can have its claims verified by the VMS data.

The Northwest Atlantic Fisheries Organization (NAFO), for instance, has VMS and observer schemes in place. The vessels of parties in its area must have a VMS system which sends position reports every six hours to the secretariat. Such vessels must have an observer onboard. Thus the implementation of tamper-proof VMS systems with real-time reporting mechanisms at least on all vessels with a permit or license to fish for species targeted by high seas bottom trawlers is essential. This will enable states to distinguish vessels fishing on the high seas from those fishing in EEZs.

As noted in the IPOA-IUU observers are also an important tool to monitor actions of vessels.

NAFO also has a scheme to promote compliance by non-party vessels which includes inspections at sea and in ports, preventing transhipments and preventing such vessels from landing or transhipping fish in the ports of contracting parties.

When infringements are found, RFMOs can use measures such as deregistration of vessels, impose fines and impose trade related measures (Swan 2002).

The Organization for Economic Cooperation and Development (OECD) Working Group identified improving information sharing and cooperation among RFMOs, particularly in linking and integrating data on IUU fishing activities (OECD 2004). A global register, for instance, of vessels fishing on the high seas or even of vessels that are technically capable of doing so would assist monitoring and enforcement, for instance. Such co-operation should also involve port states and capacity building with developing port states, to ensure that all states have sufficient capacity to manage and control their coastal and EEZ fisheries and ensure compliance with national regulations and international obligations.

After identifying vessels acting in breach of the moratorium actions could include denying fishing vessels (and their owner/operators) the authorization to fish (by any method and for any species) on the high seas, in exclusive economic zones (EEZs), or in waters covered by RFMOs. This will require a commitment by such states to confirm the status of applicant vessels prior to issuing permits.

Such measures can be bolstered by blacklisting the vessels, as is the practice within Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR). The 24 member nations have agreed that they will not deal in Patagonian toothfish caught by any of the boats on the blacklist. Japan has

specifically indicated that it will not accept toothfish from any boat on the blacklist.

Trade related measures (IPOA-IUU paras. 65-76)
Effective catch documentation schemes rely on:

- reporting by vessel captains;
- back up by verification and inspection protocols; and
- associated trade documentation schemes.

They must enable tracing of fish from the ship through to the shelf.

Market related measures may be subject to challenge in the World Trade Organization dispute resolution system and must be implemented in a fair, transparent and non-discriminatory manner. The extensive recommendations on trade measures in the IPOA-IUU should be followed.

States should strive to implement fish certification schemes for fish and fish products of the main deep sea species caught by bottom trawling (especially orange roughy, alfonsino, roundnose grenadier and blue ling) that do not carry credible certification establishing that the fish/fish products were derived from licensed fishing operations in EEZ waters. This will close markets to fish and fish products caught by high seas bottom trawling in regions where effective measures have not been put into place.

Again this is not novel. As is noted in the Australian national plan to address IUU fishing (DAFF 2005). Australian swordfish imported into Japan or the United States must be accompanied by statistical catch documentation that enables licensed fish receivers to validate the catches' compliance with import requirements such as size requirements. Similarly Australian prawn exports to the United States must be accompanied by certification that authorized turtle extruder devices were used.

Conclusion

Current governance arrangements for the high seas are minimal and are failing to protect fishing communities, distant water fishing nations and deep sea biodiversity.

There is a range of measures which can deal with IUU fishing and in particular high seas bottom trawling which is one of the most destructive of all fishing practices.

A global moratorium on high seas bottom trawling would be effective and workable. It would be a catalyst for a range of measures and actions which would reduce IUU fishing and assist with developing a global high seas governance regime.

References

Convention on Biological Diversity (Conference of Parties 2004). 2004. *COP Decision VII/5*. (Available at hwww.biodiv.org/convention/result.aspx?id=7742

Currie, D. 2004. *Protecting the deep sea under international law: Legal options for addressing high seas bottom trawling*. Greenpeace International.

Department of Agriculture, Fisheries and Forestry. 2005. *National plan of action to prevent, deter and eliminate, illegal, unreported and unregulated fishing*. (Available at www.daff.gov.au/corporate_docs/publications/pdf/fisheries/npoa_iuu.pdf)

European Union. 2004. *Council Regulation (EC) No. 602/2004, amending Regulation (EC) No 850/98 Article 1, 22 March 2004 and OJ L 97/30, 1 April 2004*. (Available at www.europa.eu.ain).

Food and Agriculture Organization. 1995. *Code of conduct for responsible fisheries*. (Available at http://www.fao.org/fi/agreem/codecond/ficonde.asp

Food and Agriculture Organization. 2001. *International plan of action to prevent, deter and eliminate illegal, unreported and unregulated fishing*. (Available at http://www.fao.org/DOCREP/003/y1224e/y1224e00.HTM).

Food and Agriculture Organization. 2002. *IUU checklist of recommended actions*. (Available at http://www.fao.org/DOCREP/005/Y3536E/y3536e0e.htm).

Food and Agriculture Organization. 2004. *The State of the world fisheries and aquaculture*. Food and Agriculture Organization. Rome.

Food and Agriculture Organization. 2004. *Report of the technical consultation to review port state measures to combat illegal, unreported and unregulated fishing* FAO Report 759. (Available at fhttp://ftp.fao.org/docrep/fao/007/y5787e/y5787e00.pdf)

High Seas Task Force. 2005. *Promoting responsible ports*. (Available at http://www.high-seas.org/docs/HSTF_06_February_2005_Final.pdf)

IUCN – World Conservation Union. 2004. *[RESWCC3.066] The protection of seamounts, deep sea corals and other vulnerable deep sea habitats from destructive fishing practices, including bottom trawling, on the high seas.*

Kuemlangan, B. 2000. *National legislative options to combat iuu fishing.* Available at http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/005/Y3274E/y3274e0b.htm

MRAG. 2005. *Review of IUU fishing and developing countries: Synthesis report*. (Available at: http://www.high-seas.org/docs/Synthesis_report_Final_MRAG_2005.pdf).

NAFO. *Scheme to promote compliance by non-contracting party vessels.* (Available at http://www.nafo.ca/Activities/Fisheries/CEM/chapter6.html).

NAFO Fisheries Management. (Available at http://www.nafo.ca/Activities/FRAMES/AcFrFish.html).

OECD. 2004. *OECD workshop on IUU fishing activities. Key observations and findings by the workshop chairs.* (Available at http://www.oecd.org/dataoecd/55/6/31603545.PDF)

Rigg, K., Parmentier, R. & Currie, D. 2003. *Halting IUU fishing: Enforcing international fisheries agreements.* (Available at http://europe.oceana.org/downloads/HaltingIUUFishingEnforcingInternationalFisheries Agreements.pdf)

Swan, J. 2002. *Fishing vessels operating under open registers and the exercise of flag state responsibilities - information and options.* FAO Fisheries Circular 980, FIPL/C980, (Available at http://www.fao.org/fi/projects/fishcode/publicationpdffiles/Other/C980-Open%20Register.pdf)

Volga Case. 2002. *Judgment Russian Federation v Australia application for prompt release 23 December 2002*. (Available at http://www.itlos.org/cgi-bin/cases/case_detail.pl?id=11&lang=en)

Wellington Convention. 1990. *Convention for the prohibition of fishing with long driftnets in the South Pacific (and protocols)*. (Available at: www.oceanlaw.net/texts/wellington.htm)

World Summit on Sustainable Development Plan of Implementation. 2001. Available at http://www.johannesburgsummit.org/html/documents/summit_docs/2309_planfinal.htm

UN Resolution 46/215 [Driftnets] 20 December 1991. (Available at http://www.intfish.net/treaties/ga46_215.htm para 3(c)

UN Resolution A/RES/58/240 [UN Oceans Resolution 2003] 23 December 2003. (Available at http://www.un.org/Depts/los/general_assembly/general_assembly_resolutions.htm Para 52).

UN Resolution A/59/L.22 [UN Oceans Resolution 2004] 10 November 2004. (Available at http://www.un.org/Depts/los/general_assembly/general_assembly_resolutions.htm Para 70)

UN Resolution A/60/L.22 [UN Oceans Resolution 2005] 29 November 2005. (Available at http://daccess-ods.un.org/access.nsf/Get?Open&DS=A/60/L.22&Lang=E para 73 and d77)

UN Resolution A/60/L.23 [UN Fisheries Resolution 2005] 29 November 2005, paras. 69-74. (Available at http://daccess-ods.un.org/access.nsf/Get?Open&DS=A/60/L.23&Lang=E