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Trade Measures and the Combat of IUU Fishing: Institutional Interplay and Effective Governance in the Northeast Atlantic

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Abstract

The use of trade measures to combat illegal, unreported and unregulated (IUU) fishing in the Northeast Atlantic has evolved from unilateral denial of the landing of fish taken outside international quota arrangements to a multilateral Scheme of Control and Enforcement under the North-East Atlantic Fisheries Commission (NEAFC). International trade rules have not constrained this development, mostly due to successful management of the interplay between international resource management and trade regimes. States protect resource management objectives from such constraint by inserting clauses that establish a normative hierarchy, or they employ various means for adapting IUU measures to the 'environmental window' of the global trade regime. The fact that regional states have introduced trade restrictions only when non-restrictive or less restrictive measures have failed enhances such compatibility, as do the gradual shift from unilateral to multilateral measures and the rise in transparency, openness and target-state involvement. None of those features reduces the effectiveness of regional trade measures; they minimize tension with trade commitments and largely strengthen their clout in the struggle to combat IUU fishing in the Northeast Atlantic.

1. Introduction

As the UN Food and Agriculture Organization (FAO) has acknowledged, IUU fishing is a highly diverse phenomenon [1, Art 3]. *Illegal* fishing violates relevant 'national laws or international obligations'. *Unreported* fishing 'has not been reported, or has been misreported' to the relevant national authority or international fisheries organization, 'in contravention of' national or international procedures. *Unregulated* fishing, finally, covers harvesting by vessels without nationality or flying the flag of a non-party in 'the area of application of a relevant regional fisheries management organization' or outside such areas if 'conducted in a manner inconsistent with State responsibilities . . . under international law'. Meeting any one of those three criteria is enough to qualify as an IUU fisher.

This article examines whether international trade law constrains the adoption and implementation of certain restrictions on trade that aim to strangle IUU fishing for Northeast Arctic cod. That cod stock is the world's biggest, and looms large economically, politically and culturally in coastal communities in Norway and Northwest Russia[2]. Trawlers from the coastal states and several other European nations take some two thirds of the annual harvest, the remainder being caught by numerous relatively small Norwegian coastal vessels using

passive gears. One subset of IUU fishing for this stock is simply ‘unregulated’ and concerns harvesting in a high-seas pocket between the exclusive economic zones (EEZs) of Norway and Russia. A much larger subset combines ‘illegal’ with ‘unreported’ fishing, and involves mostly Russian harvesting vessels, Norwegian processors, transport vessels flying a variety of flags, and fish importers in numerous EU states.

The next section describes the regional institution for managing this resource, the means available under the law of the sea for combating IUU fishing, and their limited success. Section 3 examines various trade-restrictive measures that have emerged as a result; Section 4 analyses their interaction with international trade rules; and Section 5 pinpoints efforts by regional actors to manage such institutional interplay to avoid constraint originating in the global trade regime. The final section summarizes findings and draws implications for interplay management and combating IUU fishing.

2. The Law of the Sea and IUU fishing for Northeast Arctic cod

Norway and Russia are dominant actors in the international institution for managing Northeast Arctic cod since the stock occurs mostly in waters under their jurisdiction.¹ A bilateral Joint Fisheries Commission meets annually to adopt and allocate total quotas and other regulations for a number of shared stocks. Its decisions are binding on the coastal states unless they opt out within two months. Non-coastal states also participate in the regime by accepting in separate bilateral and trilateral agreements the quotas and technical regulations that Norway and Russia establish. Recently the North-East Atlantic Fisheries Commission (NEAFC), a multilateral organization managing regional high-seas stocks, has acquired a role in the system for promoting compliance with Northeast Arctic cod regulations.

2.1. Dynamism in global fisheries law

This regional institution is nested within the global fisheries regime, which means that important parameters are set forth in broader international customary and treaty law. Like many international institutions, the global fisheries regime differentiates actors according to the spatial location of the activity under regulation. Ever since the evolution of state sovereignty in its modern meaning, from the sixteenth century onwards, flag states have held a prominent position with respect to fisheries regulation and enforcement. Circumscription of flag-state jurisdiction is sizeable only when harvesters operate in internal waters or the territorial sea, where the coastal state has sovereignty, or in a fisheries zone or EEZ where the coastal state has certain sovereign rights.

The need to combat practically unregulated fishing formed the main rationale for the extension of coastal state jurisdiction – typically the outcomes of heated and sometimes violent regional conflicts over stocks that ‘straddle’ between existing national zones and the high seas. After 1976, it has not been controversial under international law for a coastal state to set up an exclusive economic zone that may extend as far as 200 miles from the baselines, as codified in the 1982 United Nations Law of the Sea Convention. Within such zones, a coastal state enjoys ‘sovereign rights for the purpose of exploring and exploiting, conserving and managing’ the fish stocks, and may encourage compliance with regulations by the full

¹ *Institutions* are ‘persistent and connected sets of rules (formal and informal) that prescribe behavioral roles, constrain activity, and shape expectations’ [3, p. 3]; *international regimes* are the subset involving states as prime actors and addressing specific issue areas [4, p. 3].

range of enforcement activities, including ‘boarding, inspection, arrest and judicial proceedings’.²

In areas beyond EEZs, in contrast, there are few encroachments on the flag-state jurisdictional monopoly. This situation complicates fisheries management whenever the flag state is unwilling or unable to regulate vessels flying its flag. States are to exercise the freedom of fishing with reasonable regard to the interests of other states and ‘have the duty to take, or to co-operate with other States in taking, such measures... as may be necessary for the conservation of the living resources of the high seas’ and ‘shall, as appropriate, co-operate to establish sub regional or regional fisheries organizations to this end’.³

Global rules on high-seas fisheries grew considerably stronger during the 1990s, mostly due to the 1995 UN Fish Stocks Agreement [5]. This agreement strengthens the duty to cooperate with other states on high-seas fisheries by providing that only states that are members of a regional fisheries regime, or that agree to apply the conservation and management measures taken under such a regime, shall have access to the fishery.⁴ With respect to enforcement on the high seas, the Fish Stocks Agreement confirms stronger flag-state responsibilities, notably the ability to prevent its own vessels from engaging in high-seas fishing without a permit, and lays down procedures permitting non-flag states, under certain conditions, to inspect and detain fishing vessels on the high seas.⁵ The agreement also encourages port states to conduct inspections of vessels voluntarily in port and to prohibit landings and transshipment whenever port state inspections have ‘established that the catch has been taken in a manner which undermines the effectiveness of...conservation and management measures on the high seas’.⁶

Hence, a long-term trend in global and regional ocean-law measures to combat IUU fishing is the circumscription of the spatial extent of high-seas areas and the freedom to fish that states traditionally enjoy there. While the spatial extension derives from customary law and is binding on all states, the stronger duty to cooperate on high-seas fisheries management articulated in the Fish Stocks Agreement is binding only on parties to that treaty. Unfortunately, as the remainder of this section shows, the recent dynamism in international fisheries law has failed to prevent the emergence of very substantial IUU fishing for Northeast Arctic cod: unregulated fishing in a high-seas pocket of the Barents Sea, and illegal and unreported fishing in waters under national jurisdiction.

2.2. *Unregulated fishing*

Due to changes in water temperature and salinity, the availability of cod in the ‘Loophole’, a high-seas area in-between the Norwegian and Russian EEZs, grew markedly around 1990 [6]. Northeast Arctic cod thus became a straddling as well as a shared stock. Although the presence of ice made for a short season, this new fishing opportunity drew the attention of distant water vessel operators. Vessels from Iceland dominated in the Loophole, and soon as many as eighty trawlers flying the Icelandic flag had operated in the area. Eager to establish a ‘real interest’ in this stock, Iceland carefully recorded and published the

2 Law of the Sea Convention, Arts. 56 (sovereign rights in the exclusive economic zone) and 73, para. 1 (enforcement). This convention and its implementing treaties, including the 1995 Fish Stocks Agreement, are available at www.un.org/Depts/los/index.htm.

3 Law of the Sea Convention, Arts. 116 and 119 (reasonable regard), 117 and 119 (conservation), and 118 (cooperation).

4 Fish Stocks Agreement, Arts. 8 (access to fishery), 21 (at-sea inspection) and 23 (port state measures).

5 Fish Stocks Agreement, Art. 21.

6 Fish Stocks Agreement, Art. 23, para. 2.

catches.⁷ Third-party harvesting amounted to some 50 thousand tonnes in 1994, around seven per cent of the total.

The emergence of unregulated fishing in the Loophole coincided with the first session of the UN conference that negotiated the Fish Stocks Agreement, so the rules governing the interaction between coastal states and others on the high seas were in a state of flux [5]. Norway and Russia agreed to step up monitoring in the area by greater control-vessel presence but refrained from stretching international law regarding unilateral enforcement measures beyond 200 miles. Despite pressure from industry organisations calling for emergency measures and more activism, at no time did the coastal states use patrol vessels for non-courtesy boarding or detention of foreign vessels. Such measures, were they to contribute to the making of international law, would require consent or acquiescence on the part of those subject to them, as well as third parties. Even for a stock occurring largely within EEZs, other user states would hardly perceive unilateral coastal-state enforcement on the high seas as compatible with customary international law, unless *bona fide* attempts to reach agreement with other users had failed and the stock was unequivocally in jeopardy due to the activity in question [8, p. 285]. Compared to the situation in the Bering Sea Doughnut Hole [9] or Canada's high-seas problem in the Northwest Atlantic [10], the Loophole case was an unlikely candidate for attracting the political consent necessary for legal advance. At the peak, unregulated catches of Northeast Arctic cod represented no more than a third of the *increase* in total quotas from the preceding year. Such a level of IUU fishing was more a nuisance than a sustainability threat; moreover, Iceland repeatedly declared its willingness to negotiate with the coastal states. The difficulties of justifying coastal state unilateralism under international fisheries law generated an interest in exploring other compliance measures, notably those relating to international trade.

2.3. *Illegal and unreported fishing*

In recent years, two waves of quota overfishing have occurred by vessels licensed to fish in the region. The Advisory Committee under the International Council for the Exploration of the Sea (ICES) provides annual quota recommendations on Northeast Arctic cod.⁸ This multilateral organization estimates that unreported catches rose from 25 thousand tonnes in 1990 to 130 thousand tonnes in 1992 – more than a third of that year's total cod quota [11, p. 23]. Most of those catches were by Russian vessels, according to Norway's Fisheries Directorate, which had compiled the data underlying the Advisory Committee estimate from Russian logbooks, port-delivery reports and international trade statistics [12].

Such large-scale illegal and unreported fishing was possible due to the incorporation of Northwest Russia's fishing industry into the global market economy, following the radical reordering of Soviet society launched by Gorbachev in the late 1980s. *Perestroika* triggered a rapid rise in Russian landings in Western ports, which in turn undermined the traditional Soviet monitoring system, juxtaposition of catch reports and delivery reports from processing units. Three factors explain this change. One is the dismantlement of the huge fisheries complex *Sevryba*, which loosened the ties between the harvesting fleet and the domestic processing industry [13]. A second factor is the growing inability of Murmansk-based processors to compete with Western processors for Russian cod. A third factor emerged later

7 The Fish Stocks Agreement (Art. 8) provides that regional management regimes shall be open to states with a 'real interest' but fails to define the concept; see [7]. Historical catches is an important allocative criterion in regional fisheries management organizations.

8 The Advisory Committee (ACOM) is the result of a 2008 merger of three ICES advisory committees, on fisheries management (ACFM), the marine environment (ACME), and ecosystems (ACE).

as turf struggles and legal complexity in Russia's fisheries enforcement system made domestic landings time-consuming and costly endeavours that vessels sought to avoid if possible [14, p. 138].

Russian landings abroad meant that domestic fisheries enforcement agencies were no longer able to cross-check fisher reports with port-delivery data, and this greatly increased the leeway for contravening regulations and reporting procedures. As long as these deliveries occurred in Norway, the Joint Fisheries Commission remained able to respond with reasonable effectiveness. The establishment, under the commission, of a Permanent Committee for Regulation and Control in 1993 facilitated regular sharing of data on Russian catches in Norwegian ports and Russian vessel activities in waters under Norwegian jurisdiction. Soon the committee became an arena for elaborating joint measures to improve the implementation of regime rules. Notable examples are regular exchanges of information about national fisheries legislation, annual seminars involving enforcement personnel of the two states, exchanges of observers on each other's control vessels, common conversion factors between whole fish and the processed products that enforcement personnel usually find on board, and the coordination of satellite tracking systems.

When Russian vessels shifted their direct landings from Norwegian to various British, German, Dutch, Spanish and other EU ports, ocean-law measures again proved inadequate. Adding to the difficulties of monitoring those landings is the growing involvement of at-sea transshipment from Russian trawlers to transport vessels, which facilitates attempts to disguise the amount of actual catches. The ICES [11, p. 23] estimates that total unreported catches of Northeast Arctic cod in this second wave of quota overfishing ranged from 90 thousand tonnes in 2002 to more than 160 thousand tonnes in 2005. An important basis for these estimates is satellite tracking data of fishing and transport-vessel movements to main ports, combined with assessments of vessel storage capacity that enforcement agencies derive from inspections and vessel registers [15]. Uncertainties regarding loading extent, species composition, and the mix of fillet and head-and-gutted products suggest that these figures should be treated with some caution. On the one hand, Russian authorities find recent ICES estimates of unreported catches too high but acknowledge substantial unreported fishing by vessels flying their flag.⁹ On the other hand, the ICES does not offer any specific estimate of unreported catches before the very high 2002 figure: in fact, a gradual rather than abrupt emergence of Russian quota overfishing is more plausible. The conditions enabling large-scale overfishing were present also in preceding years, notably large transshipment-based exports to EU markets and high cod availability relative to the quota [17].

2.4. Severity of regional IUU fishing

Figure 1 summarizes ICES estimates of unregulated fishing of Northeast Arctic cod ('Loophole catches', deep grey area), illegal and unreported catches ('quota overfishing', vertical stripes), and catches that fishers take in conformity with caps under the Joint Fisheries Commission ('quota catches', horizontal stripes).

⁹ Russia, Office of the Auditor General [16, pp. 207-10] estimates Russia's 2005 catch at around 240 thousand tonnes; this state's post-transfer quota that year was 201 thousand tonnes. Following an exchange of information with Russian fisheries and customs authorities, Norway [15] revised its 2006 estimate of Russian overfishing of cod from 117 thousand tonnes to 80 thousand tonnes.

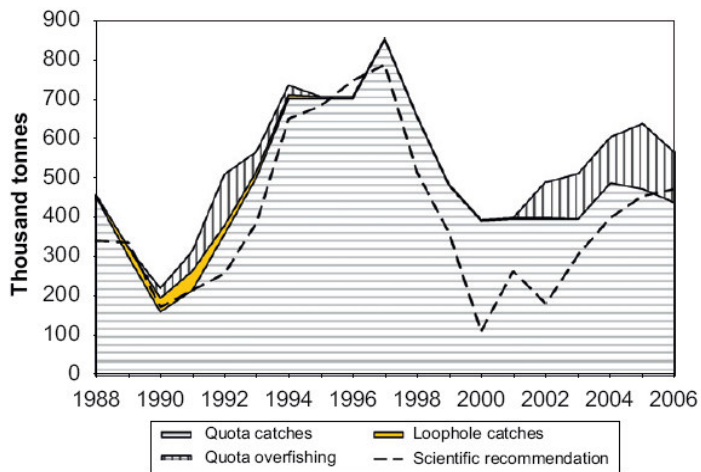


Fig. 1. Quota catches, IUU catches and scientific recommendations, Northeast Arctic cod 1988–2006. Note: Catch data from ICES [11], overfishing estimates are contested; scientific recommendations from previous editions of the same series; quotas from annual protocols of the Joint Fisheries Commission.

A few comments are in order with respect to this figure. First, unregulated catches are relatively modest even during peak years and drop to very low levels well before the trilateral 1999 Loophole Agreement, which gave Iceland a small share of the cod stock in return for accepting coastal-state regulation and refraining from seeking fishing rights for cod in the Fisheries Protection Zone around Svalbard.¹⁰ Second, estimates of illegal and unreported catches of cod are uncertain and contested, but clearly indicate that most IUU harvesting of Northeast Arctic cod occurs by vessels holding licences to fish this species, with peaks in the first halves of the 1990s and 2000s. Contributing to the apparent quota loyalty in intermediate years were relatively high quota levels. Third, the broken line portraying ICES catch advice shows that IUU activities add to a level of legal, reported and regulated fishing already considerably higher than scientists recommend. The dramatic difference between advised and agreed quotas in the early 2000s reflects the ICES implementation of a precautionary approach to fisheries research. This meant greater safety margins than before, especially for stocks dropping below certain pre-defined precautionary reference points [18].

The consequences of these various kinds of IUU fishing are severe. In sustainability terms, they add to the quota-based fishing pressure which, according to the best available knowledge, is already too high. Economically, recent amounts of quota overfishing imply a substantial redistribution, from those fishers who play by the rules to those who cheat. Norwegian scientists estimate that without illegal fishing, the 2007 quota advice for Northeast Arctic cod would be 85 per cent higher than the actual case.¹¹ Politically, awareness of large-scale IUU activities undermines the willingness among fishers and managers to keep quotas and catches within scientific advice, in part on the assumption that the overfishers are those most likely to gain from such restraint.¹² Statements by a representative of the Murmansk-based Union of Private Fisheries Enterprises of the North to the effect that a 2007 quota in line with the ICES advice is a safe recipe for more overfishing, points in the same direction.¹³ The fact that quota overfishers must cover their tracks also implies that this IUU subset underpins corrupt practices in the production and distribution chains for Northeast Arctic cod

10 Loophole Agreement, Arts. 2-4 in conjunction with Norway-Iceland Protocol 1999, Art. 1; see [6].

11 The actual ICES [11, p. 19] advice was 309 thousand tonnes; the hypothetical advice without illegal catches would be around 570 thousand tonnes, according to Asgeir Aglen of Norway's Institute of Marine Research; see *Fiskeribladet* [19, p. 9].

12 See statement by Paul Jensen, leader of the Norwegian Coastal Fishermen's Union, cited in *Fiskeribladet* [20, p. 4].

13 Genady Stephakno, cited in *Fiskeribladet* [21, p. 3], arguing that the 2007 quota should be nearly twice as high as the ICES recommends.

and beyond. Moreover, evidence links large-scale overfishing in the region to such other unlawful activities as illegal trade in drugs or weapons and human trafficking.¹⁴

In summary, the strengthening of global high-seas fishing provisions and close collaboration between Russia and Norway on a range of measures deriving from their rights and duties as coastal states and flag states have failed to prevent very substantial IUU fishing for Northeast Arctic cod. The impacts on stock sustainability, distribution of gains, corruption, and quota responsibility among managers and fishers, could be severe. Those failings explain the growing interest in various trade measures to complement traditional approaches to combat IUU fishing.

3. The promise of trade measures

Denial is the fundamental strategy underlying the trade-related measures under review here. Governments and others are to refuse access to valuable outlets or inputs to those who operate and support IUU fishing. The use of trade measures in international resource management is no novelty: here the USA has been particularly active [23]. Since 1978, the Pelly Amendment to the Fisherman Protection Act provides for trade sanctions, in practice related to seafood products, on states undermining international conservation agreements. This national legislation is salient in the overall compliance system of the international whaling regime [24]. The USA has also unilaterally implemented a number of trade restrictions aimed at discouraging foreign bycatch-intensive harvesting methods in tuna and shrimp fisheries. In recent years, trade-related compliance measures have emerged also in multilateral environmental diplomacy, with around twenty out of two hundred multilateral environmental agreements containing such provisions [25].

While environmentalists often see ‘green’ trade measures as valuable reinforcement of relatively weak international institutions for environmental governance, such provisions are highly controversial. Many developing countries point out that, as a policy instrument, trade measures are asymmetrically available, since their force depends crucially on the size and diversity of the enforcer’s home market, and this tends to favour states that are already powerful [26]. Liberalists worry that states may abuse such provisions for protectionist purposes and gradually undermine global and regional trade rules.

The centrepiece of the global trade regime is the World Trade Organization (WTO), an intergovernmental organization established in 1995 with a membership of 151 states and customs territories.¹⁵ This organization operates a number of multilateral treaties with the overarching objective of liberalizing world trade. Certain key principles under the 1947 General Agreement on Tariffs and Trade (GATT) reappear in subsequent WTO treaties, and aim to discipline the use of trade sanctions. The principles of national treatment (Article III) and of most-favoured nations treatment (Article I) prohibit discrimination in trade among members. States are to treat ‘like products’ identically with respect to internal taxes and regulations, irrespective of whether they are domestic or foreign, or the environmental or any other policies of their country of origin. Article XI provides a general ban on quantitative restrictions. A compulsory and binding dispute settlement system, which may authorize bilateral trade sanctions, adds a judicial-like dimension to the global trade regime.

Tension with these global trade rules, or regional rules with similar contents, is a common feature of recent port state measures to combat IUU fishing in the Northeast Atlantic. Three

14 Norway’s Minister of Justice, Knut Storberget, quoted in *Fiskaren* [22, p. 6].

15 Agreement Establishing the World Trade Organization, Art. III; WTO agreements are available online at www.wto.org; membership data as of 27 July 2007.

types of measures are in focus: cargo documentation, vessel listing, and constraints on transshipment.

3.1. Cargo documentation

In order to combat unregulated high-seas fishing in the Northeast Atlantic, in 1993 Norway prohibited foreign landings of fish from stocks that are subject to Norwegian regulation unless taken pursuant to a fisheries agreement between Norway and the flag state.¹⁶ Later on, the ban was extended to fish caught in contravention of a relevant regional fisheries management regime, or by non-members of such a regime. Thus, fishing vessels using Norwegian ports as outlets for cargo including Northeast Arctic cod must document their entitlement within the regional regime to engage in the fishery. This general approach reduces the cost of compliance activities by placing the burden of proof with the fishers rather than the enforcement agencies. Compared to at-sea inspection, moreover, examination in port of logbooks, vessel monitoring systems, fishing gear, and catch onboard (including origin, species, form and quantity) is safer and far less expensive.

The immediate effect of Norway's unilateral listing initiative was to force Loophole fishers to obtain bunkering in ports further away from the fishing grounds, thus increasing their operational costs and reducing their margins. However, the effectiveness of a cargo documentation scheme depends crucially on the number of participating states. Unilateral port state control is comparable to a traffic police officer waiting at one highway exit, hoping to catch all those who are driving too fast. Just as there are many exits from a highway, many ports are usually available, and private actors operate many port facilities and services [27]. Realizing that broader participation would strengthen the clout of port state measures, Norway and Russia pledged in the Joint Fisheries Commission to require in quota agreements with other regional states that they too ban landing and transshipment of catches originating from unregulated fishing [6]. As measures to combat Loophole fishing of cod, however, those agreements were largely impotent, since a majority of vessels were Icelandic and landed their catch in domestic ports.

Various commissions for management of tuna fisheries were frontrunners in the development of multilateral documentation schemes. In 1999, the NEAFC implemented a Scheme of Control and Enforcement involving more stringent reporting procedures, satellite-based vessel monitoring, reciprocal inspection rights on the high seas and stricter flag-state commitments to investigate and prosecute infringements.¹⁷ This organization also implemented a Scheme to Promote Compliance by non-Contracting Party Vessels, under which members are not to allow port landing or transshipment by a non-member state vessel that has been sighted engaging in harvesting in the Regulatory Area without inspection [28, item 8].¹⁸ Such vessels are presumed to undermine the effectiveness of the regime unless the operator or the flag state can provide documentation showing that the fish was not taken in contravention of NEAFC rules. Although both Iceland and Russia are NEAFC parties, none of those schemes had the potential to reduce IUU fishing for Northeast Arctic cod, whether in the Loophole or in waters under national jurisdiction, because that stock is not among the 'regulated resources' under NEAFC.

¹⁶ Norway, Legal Order 6 August 1993.

¹⁷ NEAFC Scheme of Control and Enforcement (adopted 1998), Arts. 7, 8, 10-12 (reporting), 9 (vessel monitoring), 13-18 (inspection) and 19-24 (infringements).

¹⁸ The NEAFC Regulatory Area comprises the Northeast Atlantic high seas areas. An amendment in force from 2007 extended this provision to the Coastal Area, which includes also waters under national jurisdiction.

In 2007, however, the NEAFC implemented a stronger Scheme of Control and Enforcement with high potency in the combat of IUU fishing for Northeast Arctic cod. Under the new scheme, members shall not allow a NEAFC vessel to land or tranship frozen fish in its port unless the flag state of the vessel that caught the fish confirms that the vessel has sufficient quota, has reported the catch and is authorized to fish in the area, and that satellite tracking information data correspond with vessel reports.¹⁹ This flag-state confirmation procedure is innovative and involves a recurrent external check on the flag state's implementation of authorization, data recording and vessel monitoring commitments under global and NEAFC rules. Another important feature is that, unlike earlier NEAFC schemes, the new system applies not only to regulated resources in the Regulatory Area (the high seas) but to all 'frozen catch of fisheries resources caught in the Convention Area': the latter includes also the regional EEZs. This broadening of scope makes the NEAFC Scheme of Control and Enforcement directly applicable to landings of Northeast Arctic cod.

Such documentation requirements may create tension with international trade rules if they restrict WTO members' freedom of transit, or introduce inappropriate technical barriers to trade. GATT's Article V provides specifically for 'freedom of transit through the territory of each contracting party', adding that '[n]o distinction shall be made which is based on the flag of vessels, the place of origin, departure, entry, exit or destination, or on any circumstance relating to the ownership of the goods, of vessels or of other means of transport'. Similarly, the Technical Barriers to Trade Agreement requires in Article 2 that 'technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade'. Section 4 examines that institutional interplay more closely.

3.2. *Blacklisting vessels*

In order to constrain Loophole activities, Norway implemented in 1997 a unilateral black list system. Vessels on the list will not obtain a licence to fish in that state's EEZ even if they change ownership.²⁰ Such denial of licensing to fish creates no immediate tension with international trade regimes, since access to natural resources does not fall within the category of a 'good' or a 'service' in international trade agreements.²¹ However, Norway's blacklisting also extends to port calls, which involve access to services, and covers both fishing vessels and transport vessels that have taken onboard fish in violation of NEAFC rules on transshipment. The basic purpose of national and international vessel lists is to magnify the costs that IUU operators suffer as a consequence of port state measures, notably by adding memory and in some cases, non-forgiveness. Such lists make it clear that certain vessels have a 'history', a bad record of involvement in IUU fishing, and they disseminate this finding to those in a position to deny fishing vessels access or outlets. As Section 2 shows, much of the IUU fishing in the region occurs by vessels taking and reporting part of their catches in a perfectly legal and regulated manner. If governments allocating fish quotas ban listed vessels from their ship registers, deny them fishing licences, or prohibit their entry into port, such vessels will become far less attractive to IUU operators [31].

19 NEAFC Scheme of Control and Enforcement (adopted 2006), Chapter V (Port State Control of foreign fishing vessels), especially Arts. 22 (prior notice), 23 (authorization to land or tranship), and 20 (scope); the new scheme is available at www.neafc.org.

20 Norway, Legal Order 6 August 1993; see St.prp. 73 (1998-99), Sec. 2.2. The first application of list-based denial occurred in 1997: see statement by Terje Løbach of Norway's Fisheries Directorate in *Fiskaren* [29, p. 7]. Norway created the list formally a year later. The current black list is available at www.fiskeridir.no.

21 See the parallel argument by Werksman [30, p. 5] on why greenhouse gas emissions allowances are neither goods nor services.

As a result of this Norwegian list, IUU vessel owners had to balance the gains they hoped to obtain from unregulated harvesting against the cost of being unable to use the vessel legally in Norway's zone in the future. A longer-term impact was to reduce the second-hand value of vessels with a history of contravening conservation measures under the Norwegian-Russian Joint Fisheries Commission. Various non-coastal states inside and outside the EU obtain around 15 per cent of the total quotas of Northeast Arctic cod each year, and waters under Norwegian jurisdiction are the most attractive areas in which to take those quotas. Some evidence suggests that such concerns contributed to Iceland's decision to accept the terms of the 1999 Loophole Agreement with the coastal states, although the main reasons were several years of low catches and the achievement of a quota for Northeast Arctic cod [6]. While Norway has said that listing of a vessel is permanent, the authorities nevertheless removed Icelandic vessels from the list following that country's adoption of the Loophole Agreement, which indicates that such removal was a high priority among Icelandic negotiators.²²

As with cargo documentation requirements, multilateral vessel lists are more potent than unilateral ones. The NEAFC created two vessel lists in 2004 [32].²³ An Observation List comprises vessels not flying the flag of a state participating in the NEAFC Scheme of Control and Enforcement that have been sighted fishing in the NEAFC Convention Area without establishing that the fish were caught in compliance with NEAFC rules. Such preliminary listing implies denial of landing, transshipment and access to services in member-state ports or by vessels flying a NEAFC-member flag. A Permanent Committee for Control and Enforcement meets annually to review the observation list in light of any flag-state explanation or other relevant information, and to recommend to the Commission whether a vessel should be removed from the list or transferred to the confirmed IUU list. Contracting parties to NEAFC are to deny port entry, fishing rights, and the granting of their flag to vessels on the confirmed list; their companies and nationals shall not be allowed to charter such vessels or import fish from them and are encouraged to avoid their produce also at later stages in the distribution chain. Augmenting the potency of this regional listing scheme, the Northwest Atlantic Fisheries Organization (NAFO) automatically adds vessels on the NEAFC list to the corresponding list that organization maintains, and *vice versa*.

3.3. Transshipment constraints

Large amounts of the Northeast Arctic cod originating from Russian vessels reach European ports in transport vessels that have obtained their cargo by means of at-sea transshipment. The frequency of such transshipment increased around 2000 as smaller Russian trawlers that had previously delivered their catches in Norway or domestically now turned to Europe [33, p. 80]. At that time, none of the measures under the Joint Fisheries Commission or NEAFC's Scheme of Control and Enforcement concerned at-sea transshipment of Northeast Arctic cod or its subsequent entry into non-coastal state ports. That situation created opportunities for violating quota constraints that numerous vessels exploited, as Figure 1 shows.

After several years of mounting evidence of IUU fishing, the Joint Fisheries Commission committed Norway and Russia to mandate from 2005 that their fishing vessels report any transshipment 24 hours prior to the event, and to prohibit transshipment to any vessel not registered in a state participating in the NEAFC Scheme of Control and Enforcement. From

²² Norway, St.prp. 74 (1998-99), Sec. 2.2 (removal of Icelandic vessels).

²³ See NEAFC Scheme of Control and Enforcement, Arts. 44-45. Until 2007, these provisions applied only to the NEAFC Regulatory Area, that is, the regional high seas areas.

2007, that Scheme extends the commitment to all participating states.²⁴ These national, bilateral and regional measures narrow considerably a gap in the web of information necessary for fisheries enforcement activities, but they also discriminate explicitly against transport vessels flying the flag of non-regional states.

3.4. *Summary*

Recent port state measures to combat IUU fishing in the Northeast Atlantic complement traditional fisheries enforcement activities by exploiting the need fishing vessels have for landing or transshipping their cargo. Compared to monitoring and inspection at sea, cargo documentation schemes, blacklisting and transshipment constraints are relatively cost-effective measures. Cargo documentation requirements are the least trade-restrictive, as they target only fish that originates from IUU activities. In comparison, vessel lists restrict any transaction a listed vessel may engage in, also when involving fish taken by legal, reported and regulated operations. Similarly, the ban on transshipment to all vessels not flagged by states participating in the NEAFC Scheme of Control and Enforcement excludes a large number of transport vessels from this market irrespective of their involvement in IUU operations. The next section examines more closely how such measures relate to international trade rules.

4. **Institutional interplay**

The association of international regimes with specific issue areas, defined by activity and geographic scope, is among the factors permitting reasonably clear delimitation of regimes. Institutional interplay occurs when one institution significantly affects the content, operation or consequences of another institution [34; 7; 35]. The impacts of such interplay on the effectiveness of each institution depend in part on whether regime participants attempt to influence, or manage, the interaction [36]. Some research focuses on responsive interplay management [35] but the proactive version is also important. To illustrate: those negotiating the compliance system of the climate Kyoto Protocol were anxious to avoid substantive or procedural elements that might contradict the international trade regime [37]. Similar management is important for the ability of IUU measures to avoid negative interplay from trade regimes. One approach to interplay management involves establishing a normative hierarchy; another is to adapt trade measures to fit the requirements of international trade regimes without losing clout. This section examines both approaches in the context of IUU fishing in the Northeast Atlantic.

4.1. *Normative hierarchy*

At one point during the dispute over unregulated fishing in the Loophole, Iceland filed a complaint under the regional European Economic Area Agreement over Norway's refusal to render repair services to an Icelandic vessel with a history of Loophole fishing [6]. The relevant surveillance authority indicated that such refusal violated the right to access ports and associated facilities that agreement provides for, but decided to take no further action because 'the underlying conflict concerned a dispute between Norway and Iceland over Icelandic fishing rights in the Barents Sea' [38, para. 4.10.5]. The latter observation justifies non-action because the Agreement exempts landings of fish from stocks whose management is subject to severe disagreement among the parties.²⁵

²⁴ NEAFC Scheme of Control and Enforcement, Arts. 4 (ban on transshipment to outsiders) and 13 (reporting).

²⁵ European Economic Area Agreement, Protocol 9, Art. 5.

Many other international instruments, including the Law of the Sea Convention, contain provisions that, in cases of conflict, parties are to give precedence to one of the treaties.²⁶ Such articulation of hierarchy can be highly controversial. Consider for instance the strong reactions to a proposal that the Plan of Implementation for the 2002 World Summit on Sustainable Development should state that enhancement of ‘the mutual supportiveness of trade and environment’ should occur in ‘a manner consistent with WTO rights and obligations’. Following intensive lobbying by actors fearing that this formulation might formalize a hierarchy between global trade rules and environmental treaties, the drafters ultimately dropped the WTO consistency clause [39].

In other cases, international customary rules may establish a normative hierarchy – notably that more recent and more specialized rules take precedence over earlier and more general ones.²⁷ Those rules could be relevant to the discussion of whether bans on landing and transshipment of catches taken in violation of high seas conservation rules contravene international trade law, since parties to the recent and highly specialized Fish Stocks Agreement have explicitly agreed to accept such prohibitions whenever a port state inspection exposes IUU fishing.²⁸

4.2. *Global trade rules and the ‘environmental window’*

If no clear hierarchy exists between the resource management and trade institutions in question, another approach to interplay management is to design and apply the IUU measure in ways that fit the ‘environmental window’ of WTO, the set of general exceptions laid out in GATT’s Article XX and repeated in subsequent WTO agreements. Subject to the chapeau requirement that trade restrictions ‘are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination...or a disguised restriction on international trade’, such measures may be compatible with the global trade regime if they are ‘necessary to protect human, animal or plant life or health’ (paragraph b) or ‘relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production and consumption’ (paragraph g). Subsequent decisions by dispute settlement bodies have clarified and developed the ramifications of these exceptions.

A fundamental issue in assessing WTO compatibility is whether a discriminatory trade measure falls within the range of policies that Article XX shields. Dispute settlement bodies have taken a liberal view on this question; measures aiming to protect fish stocks arguably fall within both the (b) and the (g) sets of policies. There was no disagreement, for instance, in a case over the legality of import restrictions on gasoline that ‘the policy to reduce air pollution resulting from the consumption of gasoline was...within the range of those...mentioned in Article XX(b)’ [42, p. 45]. A more recent dispute settlement body notes that the term ‘exhaustible natural resources’ should be interpreted ‘in the light of contemporary concerns of the community of nations about the protection and conservation of the environment’, adding that ‘it is too late in the day to suppose that Article XX(g)...may be read as referring only to the conservation of exhaustible mineral or other non-living resources’ [43, para. 131]. As the biannual FAO report on the State of World Fisheries and Aquaculture testifies, fish stocks are indeed exhaustible, and measures to combat IUU fisheries clearly fall within the range of policies Article XX accommodates.

²⁶ Law of the Sea Convention, Art. 311.

²⁷ The 1969 Vienna Convention on the Law of Treaties, Art. 30, codifies the *lex posteriori* rule [40]; for a discussion of this rule and the *lex specialis*, see [41, pp. 94-95].

²⁸ Fish Stocks Agreement, Art. 23, para. 2; see Section 2.

Assessment of an environmental trade measure's compatibility with WTO rules may usefully focus on three tests that dispute settlement bodies have applied in previous cases. A first test, 'necessity', that emanates from paragraph (b) has in practice been to inquire whether the enforcer has exhausted the range of non- or less trade-restrictive policy measures that could be expected to achieve the objective before introducing a measure contrary to other WTO provisions [44]. Good faith attempts to engage the target in multilateral cooperation is a notable example of non-restrictive measures which a prospective enforcer should try first.

In practice, the second test, 'relating to', in paragraph (g) involves determining whether the design and application of the trade measure render it plausible that the measure is 'primarily aimed at' conservation of exhaustible resources.²⁹ Enforcers stumbling over this hurdle have designed or applied their trade measures in a manner that hits foreigners more than domestic suppliers and have thus convinced dispute settlement bodies that the primary aim is protectionism [44, pp. 18–22]. This test relates closely to the Article XX chapeau requirements that a measure shall not imply arbitrary or unjustifiable discrimination. Here the practical question is whether any discrimination between domestic and foreign industries, or between different exporting countries, can be said to be unavoidable and explicitly justified [44, pp. 7–11].

The third test, 'sovereignty', requires that the trade measure, in conjunction with domestic restrictions, be reasonably expected to deliver the policy objective without excessive intrusion into the jurisdictional autonomy of the target state with respect to its territory and nationals [44, pp. 22–26]. This test is particularly relevant in cases where the enforcer justifies trade restrictions not on the basis of product characteristics but rather on the process and production method, as in most cases relevant to resource management.

Those three tests – whether states exhaust less restrictive measures, minimize and justify discrimination, and leave the target state adequate regulatory leeway – structure the next sections' analysis of how those who design measures to combat IUU fishing in the Northeast Atlantic have managed the interplay with global trade rules.

5. Interplay management and effectiveness

The NEAFC Scheme of Enforcement and Control is in part modelled on corresponding measures under NAFO and the Commission for Conservation of Antarctic Marine Living Resources (CCAMLR). Those designing cargo documentation systems in particular have been highly aware that target states might challenge such restrictions under global trade rules. Such awareness is not surprising, as some of the most salient trade-environment disputes have concerned measures relating to fisheries management, notably of tuna and shrimp [43, 44, 45]). Like the tuna-management bodies before it, the CCAMLR Secretariat presented and discussed its catch documentation scheme with the WTO Committee on Trade and the Environment, to minimize tension [46]. The conservation measure that upholds the documentation scheme is tailored to fit the WTO exceptions [47, p. 369] by emphasizing the conservation motive (which implies falling within the range of policies that Article XX shields), highlighting earlier measures that states have agreed to and stating explicitly that the trade-restrictive measure is decisive for achieving the objective of the regime.³⁰ In the Northwest Atlantic as well, specific provisions under the WTO have guided the development and design of measures for combating IUU fishing [48].

29 The 'primarily aimed at' phrase was introduced by the dispute settlement panel in the US-Canadian Salmon/Herring Case; see WTO [44, pp. 18–19].

30 CCAMLR, Conservation Measure 10-5 (2006), preamble.

In contrast, rules under the WTO or other international trade regimes are hardly mentioned in NEAFC annual reports in the period when this organization was developing a range of trade-restrictive measures to combat regional IUU fishing. On the few occasions when NEAFC meetings have debated the principle of using trade regulation to achieve fisheries management goals, concerning listing proposals of fish under the Convention on International Trade in Endangered Species, member states have generally expressed negative views [49, Sec. 15]. Nevertheless, as this section shows, the emergence and design of regional trade measures indicate keen awareness of how to minimize tension by means of international trade rules.

5.1. Exhausting less restrictive measures?

Concerning the criterion for WTO compatibility that states should first try measures involving less or no restriction on international trade, the coastal states and the NEAFC have in fact applied trade measures only after more traditional policies based on international ocean law proved ineffective. In the case of unregulated fishing in the Loophole, Norway did not prohibit the landing of catches from unregulated fishing until one year of intensive diplomatic activity had failed to produce an agreement. Moreover, blacklisting of vessels was implemented in 1998, five years after the less trade-restrictive ban on the landing of Loophole catches, and constraints on transshipment were not implemented until 2005.

A similar pattern of moving gradually from less to more trade-restrictive provisions has characterized the development of the NEAFC Scheme of Control and Enforcement. The NEAFC banned landing and transshipment of catches involving presumed IUU activities five years before creating its vessel lists. Similarly, at-sea transshipment provisions initially outlawed only the receiving of fish from vessels presumed to have engaged in unregulated operations activities. Later on, the ban was extended to at-sea delivery of fish and any vessel whose flag state does not participate in the NEAFC scheme.³¹ A dispute settlement body under the WTO would presumably seek to clarify whether practical reasons necessitate and justify the extension of this ban beyond vessels presumed as having engaged in IUU operations.

Another design issue relevant to WTO compatibility concerns the procedures for removing vessels from a list triggering denial. The NEAFC scheme provides for removal of a vessel from the Confirmed List if the flag state has responded effectively to the IUU fishing that caused the listing, for instance by prosecution and adequate sanctions, or when the vessel has changed ownership.³² In contrast, inscription on Norway's black list is meant to be permanent, regardless of the changes that may occur in ownership or other circumstances. This design involves a greater restriction on trade but it also raises the costs of engaging in IUU activities by affecting the vessel's prospective value to any operator desiring access to the Norwegian EEZ.

Concerning WTO compatibility, a final observation is that states combating IUU fishing in the Northeast Atlantic have refrained from employing certain more trade-restrictive measures used by some other commissions. Reflagging and renaming of vessels are simple operations: a change of nominal identity can occur within hours by means of internet-accessible open registers. In response, several regional regimes for tuna management have therefore introduced 'white lists', whereby only explicitly named vessels are allowed to land or tranship their catches in member-state ports [50]. Treating any vessel that does not appear

31 Compare NEAFC Non-Contracting Party Scheme (adopted 1998), Art. 8, with NEAFC Scheme of Control and Enforcement, Art. 4.

32 NEAFC Scheme of Control and Enforcement, Art. 44, para. 4.

on a white list as a ‘bad actor’ in ocean fisheries [51] is highly trade-restrictive and would presumably face tougher questions from a WTO dispute settlement body than would a black list, especially concerning the procedures for inscription on the list. Even more trade-restrictive are the import-ban decisions that members of International Commission for the Conservation of Atlantic Tunas implement on states whose vessels have been found to harvest bluefin tuna or swordfish in violation of rules under that regime [52]. Because they discriminate against vessels that operate in consistency with international regulations but fly a ‘wrong’ flag, such measures are highly trade-restrictive. The fact that no such imports ban has as yet resulted in any complaints under the WTO indicates that the target states in question consider multilaterally-based IUU measures as being fairly robust to the least-restrictiveness criterion.

Accordingly, the gradual movement from less to more restrictive trade measures and the avoidance of the most trade-restrictive instruments in use indicate restraint among Northeast Atlantic states to the introduction of fisheries compliance measures that might generate tension with international trade rules. Such restraint is among the conditions that WTO dispute settlement bodies have emphasized when ruling that certain trade restrictions are compatible with global trade rules.

5.2. Primarily conservation?

With respect to the second WTO compatibility criterion – evidence that a trade measure is aimed primarily at realizing resource conservation rather than protecting domestic actors – three features of regional IUU measures are especially relevant: the trend towards multilateralism, provisions for transparency and target involvement, and the openness of the regional scheme to regime outsiders.

Since Norway introduced restrictions on the landing of Loophole catches of cod in the early 1990s, the coastal states have consistently sought to broaden the participation among regional port states to enhance the coverage of such trade measures. At first, these efforts were bilateralist in character [7], in that the coastal states used EEZ access as a lever in negotiations with other states to obtain such participation. Gradually, however, the locus for those efforts shifted from bilateral to regional and global institutions. Citing the CCAMLR experience, Norway pressed for the development of a NEAFC vessel list system. Several years before the adoption of that list, Norway achieved a non-binding resolution that member states should not flag or license vessels with a history of fishing contrary to NEAFC recommendations.³³ As a follow-up of its Plan of Action on IUU fishing, the FAO convened expert and technical consultations on a Model Scheme on Port State Measures to Combat IUU Fishing [53]. The Model Scheme is a blueprint for regional action that takes on board more than a decade of learning experience concerning unilateral and collaborative efforts to constrain IUU operations. Norway championed the development of a separate Port State Control Scheme under NEAFC based on the FAO Model Scheme, and also the expansion of the scope to cover all species and the entire convention area that makes this scheme relevant to landings of Northeast Arctic cod [55, item 10].

The shift of emphasis from unilateral to multilateral restrictions on trade improves their WTO compatibility for two main reasons. First, emplacing trade restrictions in a multilateral framework makes it more difficult to tailor provisions opportunistically so as to hit foreigners harder than domestic players, so a dispute settlement panel would have fewer grounds for suspecting that the measure was protectionism in disguise. The UN Fish Stocks Agreement

³³ See NEAFC, item 11 [54, item 11]. The mandatory vessel list system was adopted two years later: see Section 4.

encourages inspection of vessels voluntarily in port ‘to promote the effectiveness of subregional, regional and global conservation and management measures’ but reminds states that in doing so, ‘the port State shall not discriminate in form or in fact against the vessel of any State’.³⁴ The NEAFC Scheme of Control and Enforcement commits member states to inspect every non-contracting party vessel that enters the port, as well as at least 15 per cent of all vessel calls.³⁵ Prior to 2007, no particular NEAFC port state measures applied to non-contracting party vessels. Such differentiation among party and non-party vessels does not necessarily imply discrimination, since other NEAFC rules commit contracting-party vessels to very detailed procedures for reporting and at-sea inspection that are not applicable to non-participants in the Scheme. Second, a regional fisheries management regime explicitly calling for specific trade restrictions constitutes a plausible justification for differentiating between categories of foreign and domestic vessels.

Right from the outset, the NEAFC Non-Contracting Party Scheme included elaborate provisions for informing the vessel, its flag state and other user states in the region about a presumption of unregulated fishing activities. Under the present Scheme, the NEAFC initiates a dialogue with the flag state involving requests for measures to ensure that the vessel desists from future activities that undermine the effectiveness of NEAFC regulations, and informs the flag state of the consequences of continuing such operations, including vessel listing and future denial of access to NEAFC ports, flags, resources and service providers.³⁶ These provisions ensure transparency and a process of involving the target of prospective trade measures that complies with key WTO requirements on technical barriers to trade.³⁷ Failure to attend to such due-process concerns is among the reservations voiced by one important state against unilateral vessel lists combating IUU fishing[56].

Openness to states that are not contracting parties is a third feature relevant to the consistency between measures to combat IUU fishing and international trade rules. Since 2004, the NEAFC Scheme has permitted non-parties to achieve the status as ‘co-operating non-Contracting Party’ and thus avoid trade restrictions, on condition that the state in question agrees to play by the same rules as NEAFC parties do.³⁸ Five states, among them Belize, Cook Islands and Canada, currently hold such status. The notion of non-party states ‘cooperating’ with a regime’s documentation system emerged within CCAMLR and was aimed precisely at avoiding conflict with WTO non-discrimination commitments [47, p. 370].

Hence, the trend towards multilateralism in regional trade-related measures to combat IUU fishing and the rise in transparency and openness would support a claim that those measures aim primarily at effective resource management, not protection from foreign competition.

5.3. *Leaving adequate leeway?*

The ‘sovereignty’ test that WTO dispute settlement bodies have applied when evaluating environmental trade restrictions has softened over time. The panel that reported on the first ‘tuna/dolphin’ case concluded unequivocally that any trade restriction relating to the process and production method that did not show up as a product characteristic violated the GATT by intruding too deeply into the regulatory sovereignty of the target state: ‘a contracting party

³⁴ Fish Stocks Agreement, Art. 23.

³⁵ NEAFC Scheme of Control and Enforcement, Arts. 40 (non-contracting party vessels) and 25 (all vessels).

³⁶ NEAFC Scheme of Control and Enforcement, Arts. 37-46.

³⁷ Technical Barriers to Trade Agreement, Arts. 2 and 10 in particular.

³⁸ [32]; see NEAFC Scheme of Control and Enforcement, Arts. 34-36.

may not restrict imports of a product merely because it originates in a country with environmental policies different from its own.³⁹ According to the latest authoritative statement on extraterritorial jurisdiction, the ‘shrimp-turtle’ case, some such intrusion is inevitable and present in any measure invoking an Article XX exception, but a measure is deemed to be excessively intrusive if the target, in order to avoid restrictions on trade, must ‘adopt essentially the same comprehensive regulatory program’ as the enforcing state irrespective of the different conditions that may apply in the target country [43, paras. 121 and 164].

In order to avoid the restrictions relating to cargo documentation, vessel list and transshipment, non-NEAFC vessels must either refrain from fishing in the region or participate in the Scheme of Control and Enforcement. Such participation does not equal adoption of ‘essentially the same comprehensive regulatory program’, however, since each NEAFC state typically enforces a wide range of domestic fisheries provisions that do not apply to foreign vessels seeking only to land fish in the state’s ports. Moreover, multilaterally based trade measures implement standards that numerous states embrace and typically reflect greater diversity in regulatory style than do unilateral trade restrictions. The fact that important parts of the NEAFC Scheme are based on the global FAO Model Scheme of Port State Measures also indicates that the extraterritorial jurisdiction inherent in a state’s denial of landings or transshipments by vessels presumed to undermine the effectiveness of NEAFC, is not excessive.

5.4. Effectiveness

For each of the three tests determining the WTO compatibility of an environmental trade restriction, therefore, the gradual shift from unilateral to multilateral IUU measures in the Northeast Atlantic holds the key to an affirmative answer. Although the states and regime bodies developing these measures have certainly been aware of the trade-regime pull for target specificity and multilateralism, the details of WTO provisions have not been part of the international deliberations, whether bilaterally or within NEAFC. In the Northeast Atlantic case, therefore, management of the interplay between international resource and trade regimes occurs indirectly, in that important parts of the NEAFC Scheme build on measures that especially CCAMLR and NAFO have developed with explicit attention to the WTO’s environmental window. Those parts of the NEAFC Scheme that go beyond measures taken by other regional regimes – notably flag-state confirmation that the harvesting vessel has played by the rules and the partial application to EEZs catches – do not raise distinctive trade issues.

Fortunately, there is scant conflict between those features of environmental trade measures that support WTO compatibility and their effectiveness in combating IUU fishing. Only the requirement to maximize target specificity poses a real dilemma for enforcers of trade measures, because individual assessment of vessel and cargo is costlier than more sweeping measures and also delimits the administration of sanctions. In contrast, multilateralism supports effectiveness since the involvement of all or most regional states is decisive for port state controls to strangle IUU activities. The shift to EU markets among operators of Russian fishing vessels that overfish their quotas demonstrates the limits of unilateral or bilateral measures. During the 1990s, Icelandic Loophole vessels managed to evade coastal-state port measures by landing domestically. Likewise, provisions for transparency and target-state involvement not only reduce tension with trade rules but also encourage improvements in the quality and management of information about IUU activities.

³⁹ GATT [45], para. 6.1 in conjunction with para. 5.27. This report was never put up for adoption as a legally binding solution because the parties reached an agreement prior to the vote.

Cargo documentation schemes and transshipment constraints encourage systematic data collection at the national and international levels, with the ultimate aim of tracking the fish from capture to market. Such information systems significantly reduce the leeway vessels have for fraud and evasion. Vessel lists are in the public domain, typically available on open web sites and regularly circulated to other regional management bodies and the FAO. This transparency also facilitates the mobilization of private actors, including fishers playing by the rules, environmental organisations, and processors and service providers with strong brand names who take seriously their reputation and corporate environmental responsibility.

A fisheries management measure regime is effective if it serves to change target-group behaviour in ways that improve the harvesting pressure and, ultimately, the state of stocks [17]. A year or so after the first Scheme of Control and Enforcement entered into force, NEAFC [57, item 10] reported that all elements of the automatic reporting system had been tested and worked well, and by 2002 two thirds of the flag state reports were fully automatic [49, item 10]. Under the first Non-Contracting Party Scheme, the Faroe Islands banned landings by a Belize-flagged vessel already in 2000 [57, annex C]. The introduction of vessel lists in 2004 containing Dominican vessels induced that state to de-register eight vessels that failed to provide adequate information, while Belize chose to apply for status as a cooperating state [55, item 10]. Subsequent listing of a Bahama-registered vessel induced that state to attend the NEAFC annual meeting as observer, to consider amendments to its fisheries legislation [58, item 10], and to apply for status as a cooperating state, as did also Panama the same year [59, item 10].

Out of twenty vessels on the NEAFC Confirmed List in 2007, six were in the process of being scrapped, nine were held back in NEAFC ports, and the remaining five were operating outside the region [60, annex A]. As a result of bilateral agreements and the mutual endorsement of listings under NEAFC and NAFO, vessels have been denied port access not only in the Northeast Atlantic but also in North Africa and North America [61]. The latest Norwegian estimate of Russian overfishing of Northeast Arctic cod indicates a dramatic decline, from 80 thousand tonnes in 2006 to around 40 thousand tonnes in 2007, following a marked increase in the number of vessel trips from the fishing grounds to Murmansk or Archangel [15, p. 7]. Such changes presumably reflect also other developments like the steady rise in purchasing power in Northwest Russia, but seen together with the evidence above they indicate that port state measures under NEAFC are contributing significantly to problem solving, under not only that organization but the Norwegian-Russian Joint Fisheries Commission as well.

6. Conclusions

Realizing that measures to combat IUU fishing must be as diverse as the phenomenon itself, fisheries managers have developed trade-restrictive measures alongside traditional compliance efforts under the international law of the sea. In the region under study, IUU fishing for Northeast Arctic cod has been extensive since the early 1990s – both unregulated fishing in the high-seas Loophole, and illegal and unreported fishing in waters under national jurisdiction. In some years, IUU fishing has comprised 20 – 30 per cent of the total catch from this stock. Those catches are additional to a quota-based fishing pressure that scientists have frequently deemed to be far too high. IUU activities also significantly affect the distribution of gains from the fishery and may reduce the preparedness among managers to set quotas in line with scientific advice.

The use of trade measures has evolved from unilateral denial of the landing of fish taken outside international quota arrangements involving the coastal states to a multilateral Scheme of Control and Enforcement under the North-East Atlantic Fisheries Commission. Important trade measures under this Scheme include port state denials of landing or transshipments on

the basis of a cargo documentation system, vessel lists, and extensive constraints on at-sea transshipment. Two innovative features that greatly enhance the Scheme's effectiveness with respect to management of Northeast Arctic cod are the requirement that the fishing vessel's flag state must confirm that the vessel has played by the rules before a NEAFC port state can authorize landing or transshipment of frozen fish, and the application of this provision also to fish taken in national waters and to species not regulated by NEAFC.

International trade rules have not constrained this development, mostly due to successful interplay management which in this case is mostly indirect, drawing upon trade-environment considerations that have guided the development of port state measures under other regimes. States protect resource management objectives from such constraint by inserting clauses that establish a normative hierarchy, or they employ various means for adapting IUU measures to the 'environmental window' of the global trade regime. The fact that regional states have introduced trade restrictions only when non- or less restrictive measures have failed enhances their WTO compatibility, as do the gradual shift from unilateral to multilateral measures and the rise in transparency, openness and target-state involvement. None of those features reduces the effectiveness of regional trade measures: they minimize tension with trade commitments and largely strengthen their clout in the struggle to combat IUU fishing in the Northeast Atlantic.

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