

Barents Sea Fisheries – the IUU Struggle

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Abstract: Considerable fishing operations occur in the European part of the Arctic Ocean, especially in waters under Norwegian and Russian jurisdiction, and regional states have recently made important advances in combating illegal, unreported, and unregulated (IUU) fishing.¹ During the 2000s, illegal harvesting of Northeast Arctic cod reached levels that jeopardized stock sustainability and coastal-state quota restraint, shifted wealth from legal fishers to cheaters, and promoted corrupt practices in production and distribution chains. A strengthening of various port-state measures appears promising for combating illegal, unreported and unregulated fishing in the region. Such measures have evolved from unilateral refusal to allow landing of fish taken outside international quota arrangements to a multilateral Scheme of Control and Enforcement under the North-East Atlantic Fisheries Commission (NEAFC).

Keywords: Barents Sea, IUU fishing, fisheries management, cod

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1. Purpose and plan

The Arctic Ocean borders on Greenland, Canada, Alaska, Russia and Norway; it includes the Beaufort, Chukchi, Greenland, Barents, and Norwegian seas.² Considerable fishing operations occur in the European part of this ocean, particularly in waters under Norwegian and Russian jurisdiction. Especially important are the fisheries for Northeast Arctic cod, currently the world's biggest cod stock. 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 but quite effective Norwegian coastal vessels using passive gears. During the 2000s, illegal harvesting of Northeast Arctic cod reached very high levels, accounting in some years for 20 to 25 per cent of total catches.³ Such levels of quota overfishing jeopardize the ecosystem and the legitimacy of regional management measures, as well as shifting wealth from legal fishers to cheaters and promoting corrupt practices in fish production and distribution in Europe and beyond.⁴

This article examines illegal, unregulated and unreported (IUU) fishing for Northeast Arctic cod and the unilateral, bilateral and multilateral measures that states have taken to address this problem. The next section outlines the regional institutions for managing this resource and pinpoints the means available under the Law of the Sea for combating IUU fishing. Section 3 outlines various categories of IUU fishing for cod in the Northeast Atlantic and their ecological, economic and political impacts. Section 4 describes a set of trade-restrictive measures that have emerged as a result, Section 5 examines their effectiveness, and the final section summarizes the findings.

2. The Barents Sea fisheries regime

The structure and the norms of regional fisheries management institutions relate closely to globally applicable rules, and efforts to strengthen the basis for conservation and management occur at both levels. In October 2007, the US Congress passed a resolution instructing the administration to "initiate international discussions and take necessary steps with other Arctic nations to negotiate an agreement or agreements for managing migratory, transboundary, and straddling fish stocks

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2. "Arctic Ocean", *Philip's World Encyclopedia*, 2008. Oxford Reference Online. Oxford University Press. Accessed from Fridtjof Nansen Institute. 18 September 2008: <<http://www.oxfordreference.com/views/ENTRY.html?subview=Main&entry=t142.e621>>.
 3. ICES, *ICES Advice 2010*, Book 3 The Barents Sea and the Norwegian Sea (www.ices.dk). Copenhagen: International Council for the Exploration of the Sea 2010.
 4. Stokke, Olav Schram, "Trade Measures and the Combat of IUU Fishing: Institutional Interplay and Effective Governance in the Northeast Atlantic" in *Marine Policy* (33) 2009 pp. 339–349.

in the Arctic Ocean and establishing a new international fisheries management organization or organizations for the region”.⁵ Migratory species move across regions; transboundary stocks move across national jurisdictions; and straddling stocks are those occurring both on the high seas and in national zones. The background for the US initiative was work on the development of a federal management plan concerning stocks occurring in the US exclusive economic zone (EEZ) in the Chukchi and Beaufort Seas, where no commercial harvesting has occurred so far. Spurring the initiative was the retreat of the ice north of the Bering Strait during the summer months, which has led to improved fishing opportunities in the region. In August 2009, the US Secretary of Commerce approved and adopted the Arctic Fisheries Management Plan, placing a precautionary moratorium on commercial fisheries in the management area and making future activities conditional on adequate information concerning impacts on target species and ecosystem components.⁶

The US Congress resolution on a new international fisheries management organization explicitly includes the Barents Sea, the Kara Sea and the Greenland Sea within its ambit. Should such a new body materialize, it would have to find its place alongside several existing institutions already present in parts of the relevant institutional space. In the European segment of the Arctic Ocean, two institutions in particular are central for managing transboundary and straddling fish stocks: the Norwegian–Russian Joint Fisheries Commission and the North-East Atlantic Fisheries Commission (NEAFC). The former, bilateral, commission meets annually to adopt and allocate total quotas and other regulations for several stocks shared by Norway and Russia, including Northeast Arctic cod. Its decisions are binding on the coastal states unless they opt out within two months. Also non-coastal states participate in the regime by accepting, in separate bilateral and trilateral agreements, the quotas and technical regulations established by Norway and Russia, in return for gaining access to coastal state waters.⁷ Recently the NEAFC, a multilateral organization managing regional high-seas stocks, has acquired a role in the system for improving compliance with Northeast Arctic cod regulations.⁸

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5. United States, SJ 17 RS, Calendar 407, 110th Congress, 1st Session, available at <www.fakr.noaa.gov>
 6. NPFMC, Management Plan Concerning Stocks Occurring in the US Exclusive Economic Zone (EEZ) in the Chukchi and Beaufort Seas. Anchorage AK: North Pacific Fishery Management Council 2009.
 7. Stokke, Olav Schram, “Managing Straddling Stocks: The Interplay of Global and Regional Regimes” in *Ocean and Coastal Management* (43) 2000 pp. 205–234.
 8. Stokke 2009.

Hence, a regional fisheries management regime is already in place for parts of the European Arctic and covers the migratory range of the world's biggest fish stock.

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. With respect to fisheries management, flag-state jurisdiction has traditionally been central, significantly circumscribed only when harvesters operate in internal waters or the territorial sea, where the coastal state has sovereignty. Various fisheries zones emerged in the post-war period, and since the mid-1970s coastal states have been entitled to a 200-mile EEZ involving "sovereign rights for the purpose of exploring and exploiting, conserving and managing" the fish stocks and permitting the full range of enforcement activities, including "boarding, inspection, arrest and judicial proceedings".⁹ Within 200 miles of the baselines of Arctic states, therefore, the legal basis for effective fisheries management is strong.

In areas beyond EEZs, in contrast, states are to exercise the freedom of fishing with only reasonable regard to the interests of other states; they "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".¹⁰ In recent years, these global rules on high-seas fisheries have been sharpened,¹¹ mostly through the 1995 UN Fish Stocks Agreement.¹² This agreement, which is binding on all Arctic states, strengthens the duty to co-operate 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. With respect to enforcement on the high seas, the Fish Stocks Agreement confirms stronger flag-state responsibilities, notably to prevent their own vessels from engaging in high-seas fishing without a permit, and specifies procedures allowing non-flag states, under certain conditions, to inspect and detain fishing vessels on the high seas. The agreement also encourages port states to conduct inspections of

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9. Law of the Sea Convention, Arts. 56 (sovereign rights in the exclusive economic zone) and 73, para. 1 (enforcement). Available at <<http://www.un.org/Depts/los/index.htm>>.
 10. Law of the Sea Convention, Arts. 116 and 119 (reasonable regard), 117 and 119 (conservation), and 118 (co-operation).
 11. Stokke, Olav Schram (ed.), *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes*. Oxford University Press 2001.
 12. The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks. Available at <<http://www.un.org/Depts/los/index.htm>>.

vessels voluntarily in port, and to prohibit landings and transshipment whenever 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”.¹³ Within the UN Food and Agriculture Organization (FAO), states have recently expanded and specified port-state commitments in an Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, not yet in force.¹⁴

Hence, long-term trends in international fisheries law applicable to the Arctic Ocean have involved spatial contraction of the high seas and more specific constraints on the freedom of fishing on the high seas. Unfortunately, as the next section shows, the recent dynamism in international fisheries law as implemented has failed to prevent the emergence of very substantial IUU fishing for the Arctic Ocean’s most valuable fish stock, Northeast Arctic cod, with unregulated fishing in a high-seas pocket of the Barents Sea, and illegal and unreported fishing in waters under national jurisdiction.

3. Anatomy of the IUU problem in the Barents Sea

As the FAO¹⁵ acknowledges, illegal, unreported and unregulated (IUU) fishing is a highly diverse phenomenon. *Illegal* fishing violates relevant “national laws or international obligations”. *Unreported* fishing is that which “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, refers to 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 these three criteria is enough to qualify as an IUU fisher.

This section considers two subsets of IUU fishing in the Barents Sea. One subset is simply ‘unregulated’ and concerns harvesting in a high-seas pocket between the EEZs of Norway and Russia. A much larger subset combines ‘illegal’ with ‘unreported’ fishing; it involves mostly Russian harvesting vessels, Norwegian

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

14. Adopted by the FAO Conference 22 November 2009; as of 3 March 2010, this treaty had 13 of the 25 ratifications needed for entry into force; see <<http://www.fao.org/Legal/treaties/037s-e.htm>>.

15. FAO, International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (www.fao.org). Rome: Food and Agriculture Organization 2001.

processors, transport vessels flying a variety of flags, and fish importers in numerous EU states.

3.1 Unregulated fishing in the Loophole

Harvesting operations in the 'Loophole', a high-seas area located between the Norwegian and Russian EEZs, were extensive during the first half of the 1990s but not thereafter. Due to changes in water temperature and salinity, the availability of cod increased markedly around 1990.¹⁶ 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 a history of operating in the area. Eager to establish a 'real interest' in this stock, Iceland carefully recorded and published the catches, which were additional to the annual quotas set and allocated under the Norwegian–Russian Joint Fisheries Commission.¹⁷

The coastal states, Norway and Russia, agreed to step up monitoring in the area by greater presence of control vessels, but refrained from stretching international law regarding unilateral enforcement measures beyond 200 miles. Despite pressure from industry organizations calling for emergency measures and greater activism, at no time did the coastal states use patrol vessels for non-courtesy boarding or detention of foreign vessels.¹⁸ 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.¹⁹ Compared to other areas with extensive high-seas fisheries of stocks occurring mainly within EEZs, as in

16. Stokke, Olav Schram, "Managing Fisheries in the Barents Sea Loophole: Interplay with the UN Fish Stocks Agreement" in *Ocean Development and International Law* (32) 2001 pp. 241–262.

17. 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 Stokke 2000. Historical catches are an important allocative criterion in regional fisheries management organizations.

18. Stokke 2001.

19. Burke, William T., "Fishing in the Bering Sea Donut: Straddling Stocks and the New International Law of Fisheries" in *Ecology Law Quarterly* (16) 1989 pp. 285–310 (285).

the Bering Sea ‘Doughnut Hole’²⁰ or the Head and Tail of the Grand Banks in the Northwest Atlantic,²¹ the Loophole case was an unlikely candidate for attracting the political consent necessary for such legal advance. At the peak in 1994, 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.²² International negotiations continued on and off until the 1999 trilateral 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.²³ The coastal states’ difficulties of justifying unilateralism under international fisheries law induced them to explore other compliance measures, notably related to international trade, as will be elaborated in Section 4.

3.2 Illegal and unreported fishing

The first of two waves of quota overfishing in the region coincided with the extensive Loophole fisheries, while the more recent wave occurred in the 2000s. The Advisory Committee under the International Council for the Exploration of the Sea (ICES) provides annual quota recommendations on Northeast Arctic cod. The ICES estimates that unreported catches of this stock in the early 1990s rose to 130 thousand tonnes in 1992 – more than a third of that year’s total cod quota.²⁴ Most of those catches were by Russian vessels, according to the Norwegian Fisheries Directorate, which had compiled the data underlying the Advisory Committee estimate from Russian logbooks, port-delivery reports and international trade statistics.²⁵ Understandably, the exposure of huge quota overfishing scandalized the regional fisheries regime and triggered an intensive search for effective remedies.

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20. Balton, David A., “The Bering Sea Doughnut Hole Convention: Regional solution, global implications” in Stokke, O. S. (ed.), *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes*, Oxford University Press 2001 pp. 143–77.
 21. Joyner, Christopher C., “On the Borderline? Canadian activism in the Grand Banks” in Stokke, O. S. (ed.), *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes*, Oxford University Press 2001 pp. 207–33.
 22. Stokke 2001.
 23. Agreement between the Government of Iceland, the Government of Norway and the Government of the Russian Federation concerning Certain Aspects of Co-operation in the Area of Fisheries. St. Petersburg, 15 May 1999; entry into force the same day. *Overenskomst med fremmede makter* 1999 p. 838.
 24. ICES 2010.
 25. NTBTekst (29 April 1993).

Illegal and unreported fishing of such magnitude was possible due to the incorporation of the north-west Russian fishing industry into the global market economy, following the radical reordering of the Soviet society that Gorbachev launched in the late 1980s. *Perestroika* triggered a rapid rise in Russian landings in Western ports, which in turn undermined the traditional Soviet monitoring system, with juxtaposition of catch reports and delivery reports from processing units. Three factors explain this change. One was the dismantlement of the huge fisheries complex *Sevryba*, which loosened the ties between the harvesting fleet and the domestic processing industry.²⁶ A second factor was the growing inability of Murmansk-based processors at the time to compete with Western processors for Russian cod. A third factor emerged later, 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.²⁷ Those three factors fundamentally altered the market orientation of Russian fishing vessel operators from domestic to West European ports, which in turn undermined the effectiveness of Russian rule-enforcement activities.

Russian landings abroad meant that domestic fisheries-enforcement agencies were no longer able to cross-check fisher reports with port-delivery data, and that greatly increased the leeway for contravening quota and reporting requirements. The establishment in 1993 of a Permanent Committee for Regulation and Control under the Joint Fisheries Commission facilitated regular sharing of data on Russian catches in Norwegian ports and Russian vessel activities in waters under Norwegian jurisdiction. Soon the Permanent Committee became an arena for elaborating a wide range of joint measures for improving the implementation of regional 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 onboard, and the coordination of satellite tracking systems.²⁸

26. Stokke, Olav Schram, Lee G. Anderson and Natalia Mirovitskaya, "The Barents Sea Fisheries" in Young, O. R. (ed.) *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms*, Cambridge, MA: MIT Press 1999 pp. 91–154.

27. Hønneland, Geir, *Russian Fisheries Management: The Precautionary Approach in Theory and Practice*. Leiden: Martinus Nijhoff 2004 pp. 138.

28. Stokke 2009.

When, around 2000, Russian vessels shifted the thrust of their direct landings from Norwegian to various British, German, Dutch, Spanish and other EU ports,²⁹ such traditional ocean-law measures again proved inadequate. Adding to the difficulties of monitoring landings abroad has been 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 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 2005.³⁰ An important basis for these estimates has been 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.³¹ Uncertainties regarding loading extent, species composition, and the mix of fillet and head-and-gutted products indicate, however, 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.³² On the other hand, the ICES does not offer any specific estimate of unreported catches before the very high 2002 figure. 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.³³ Therefore, a gradual rather than abrupt emergence of Russian quota overfishing beginning around the turn of the century would seem to be the most plausible pattern.

Hence, substantial quota overfishing of Northeast Arctic cod on the part of Russia during the first parts of the 1990s and the 2000s occurred because the regime's compliance system had not yet adapted to certain radical changes in the distribution strategies of vessels operators.

29. Hønneland, Geir, *Kvotekamp og kyststatssolidaritet: Norsk-russisk fiskeriforvaltning gjennom 30 år*. Bergen: Fagbokforlaget 2006 pp. 80.

30. ICES 2010.

31. Norway, Directorate of Fisheries, Status Report for 2007: Russian Fishing of Cod and Haddock/ Transshipment at Sea (www.fiskeridir.no). Bergen: Directorate of Fisheries, 2008.

32. Russia, Office of the Auditor General, Rapport om resultatene av ekspertanalysen 'Effektiviteten av utnyttelsen av kvoter på akvatiske biologiske ressurser tildelt for 2004–2005 til Den russiske føderasjon og Kongeriket Norge i samsvar med Den blandede russisk-norske fiskerikommisjonens bestemmelser'. Norway, Riksrevisjonens undersøkelse av forvaltningen og kontrollen av fiskeressursene i Barentshavet og Norskehavet – en parallell revisjon mellom norsk og russisk riksrevisjon (Doc. 3:2), Oslo: Office of the Auditor General 2007 pp. 203–238.

33. Stokke 2009.

3.3 Environmental, economic and political impacts

Figure 1 provides a comprehensive picture of IUU fishing for Northeast Arctic cod. The figure summarizes catches that fishers take in conformity with quotas allocated under the regional fisheries regime ('quota catches' = horizontal stripes), ICES estimates of illegal and unreported catches ('quota overfishing' = vertical stripes), and unregulated fishing of Northeast Arctic cod ('Loophole catches' = deep grey area).

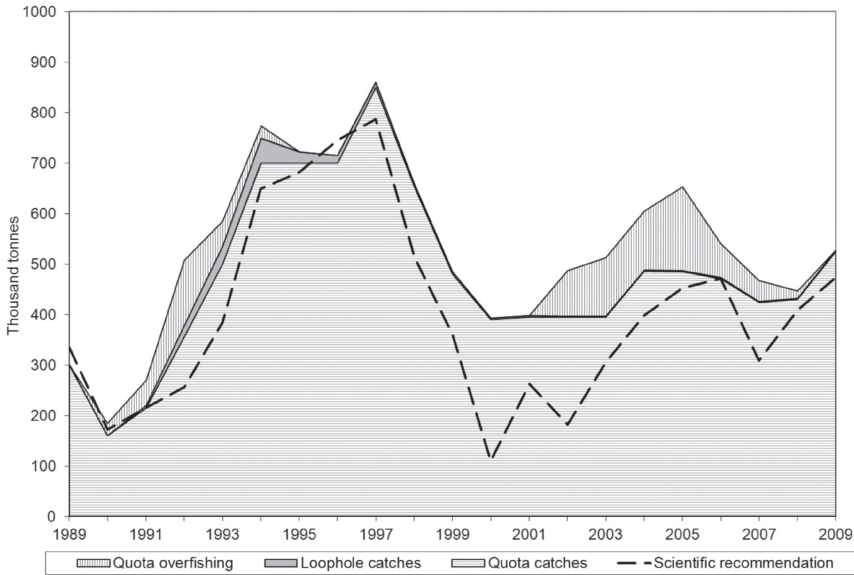


Figure 1 Quota catches, IUU catches and scientific recommendations, Northeast Arctic cod 1989-2009. Note: Catch data from ICES (2010), overfishing estimates are contested; scientific recommendations from previous editions of the same series; quotas from annual protocols of the Joint Fisheries Commission.

A few comments are in order here. First, even during peak years, unregulated catches were relatively modest, dropping to very low levels well before the adoption of the Loophole Agreement in 1999. Second, while estimates of illegal and unreported catches of cod are uncertain and contested, they clearly indicate that most IUU harvesting of Northeast Arctic cod has occurred by vessels holding licenses 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 indicating ICES catch advice shows that IUU activities add to levels of legal, reported and regulated fishing that already exceed scientific

recommendations by large margins. The dramatic difference between advised and agreed quotas in the early 2000s reflects the ICES implementation of a precautionary approach to fisheries research, implying greater safety margins for stocks that drop below certain pre-defined precautionary reference points.³⁴

The consequences of these various kinds of IUU fishing are severe.³⁵ 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 have been 85 per cent higher than the actual case.³⁶ 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. The fact that quota overfishers must cover their tracks also implies that these IUU activities underpin corrupt practices in the production and distribution chains for Northeast Arctic cod 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.³⁷ Hence, the IUU challenges facing coastal states in the Barents Sea concern not only the state of fish stocks but also the distribution of wealth, the role of science-based advice in precautionary fisheries management, and the more general struggle against corruption and crime in the region.

These severe impacts of IUU fishing activities in the Northeast Atlantic, and the failure of traditional ocean-law measures to combat them, explain the growing interest in various measures that port states may take to reduce the profitability of fishing without or in excess of quotas. That is the focus of the next section.

4. The emergence of port-state denial

Frustration with the ineffectiveness of traditional ocean-law measures to combat IUU fishing in the Barents Sea induced the coastal states to explore and extend measures that could mobilize the competence of port states to examine vessels

34. Stokke, Olav Schram and Clare Coffey, "Precaution, ICES and the Common Fisheries Policy: A study of regime interplay" in *Marine Policy* (28) 2004 pp. 117–126.

35. Stokke 2009.

36. The actual ICES advice was 309 thousand tonnes; the hypothetical advice without illegal catches would be around 570 thousand tonnes, according to Asgeir Aglen of the Norwegian Institute of Marine Research; see *Fiskeribladet* (10 June 2006 p. 9).

37. Norwegian Minister of Justice, Knut Storberget, quoted in *Fiskaren* (7 September 2007 p. 6).

voluntarily in port, and to set conditions for landing and transshipment. The general approach is denial: governments and others refuse to grant physical access or provision of services to vessels that operate or support IUU fishing. Three measures have been in focus in the Northeast Atlantic: documentation schemes, vessel lists, and transshipment constraints.

4.1 Reversing the burden of documentation

Port-state requests for documents that can substantiate that fish landed or transhipped originate from legal harvesting operations are one important means for combating IUU fishing and have evolved from a unilateral measure to a multilateral scheme. In order to combat unregulated high-seas fishing in the Loophole, in 1993 Norway prohibited the landing of fish from stocks subject to Norwegian regulation unless taken pursuant to a fisheries agreement between Norway and the flag state.³⁸ This ban was later 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 that include Northeast Arctic cod must document their entitlement within the regional regime to engage in that 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, examination in port of logbooks, vessel monitoring systems, fishing gear, and catch onboard, is safer and far less expensive.

The immediate effect of Norway's unilateral listing initiative in the early 1990s was to force Loophole fishers to obtain bunkering in ports further away from the fishing grounds, thus adding to operational costs and cutting their margins. However, the effectiveness of a cargo documentation scheme depends crucially on the number of participating states. Realizing that broader participation would strengthen the clout of this measure, Norway and Russia required in quota agreements with other regional states that they join the ban on landing and transshipment of catches originating from unregulated fishing. As measures to combat Loophole fishing of cod, however, those agreements had little effect, since most of the vessels were Icelandic and landed their catch in domestic ports.³⁹ The main significance of these measures was rather to demonstrate coordination among port states when developing new measures in fisheries management and to form part of the basis for a multilateral scheme that would later prove its worth against illegal fishing within the regional EEZs.

38. Stokke 2001.

39. Ibid.

Various commissions for management of tuna fisheries were frontrunners in the development of multilateral documentation schemes.⁴⁰ 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.⁴¹ This organization also implemented a Scheme to Promote Compliance by non-Contracting Party Vessels, under which members are not to allow landing or transshipment by a non-member state vessel that has been sighted engaging in harvesting in the Regulatory Area without inspection. 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. However, while both Iceland and Russia are NEAFC parties, none of those schemes had the potential to reduce illegal fishing for Northeast Arctic cod, whether in the Loophole or in waters under coastal state jurisdiction, since that stock is not among the ‘regulated resources’ under NEAFC. The scope of NEAFC, therefore, constrained the relevance of its port-state measures for the most severe IUU fishing occurring in the European Arctic.

In 2007, however, the NEAFC implemented a more stringent Scheme of Control and Enforcement with high potency in the combat of IUU fishing for Northeast Arctic cod, especially illegal and unreported catches.⁴² Under this 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.⁴³ 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. Core elements of this procedure are emulated in the more recent FAO Agreement on Port State Measures which, however, does not oblige the port state to request such confirmation as the

40. Palmer, Alice, Beatrice Chaytor and Jacob Werksman, “Interactions Between the World Trade Organization and International Environmental Regimes” in Oberthür, S. and Gehring, T. (eds.) *Institutional Interaction in Global Environmental Governance: Synergy and Conflict among International and EU Policies*, Cambridge MA: MIT Press, 2006 pp. 181–204.

41. Stokke 2009.

42. Stokke 2009.

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

NEAFC Scheme does.⁴⁴ A second important feature is that, unlike earlier NEAFC schemes, the new system applies not only to regulated resources on the high seas but to all “frozen catch of fisheries resources caught in the Convention Area”: the latter includes the regional EEZs as well. This broadening of scope makes the NEAFC Scheme of Control and Enforcement directly applicable to landings of Northeast Arctic cod.

4.2 Blacklisting vessels

While documentation schemes affect landings and transshipment on a cargo-by-cargo basis, another port-state measure focuses on the vessel and its history. In order to constrain Loophole activities, in 1997 Norway implemented a unilateral blacklist system concerning fishing vessels with a history of unregulated harvesting for cod in the Barents Sea. Listed vessels will not obtain a license to fish in that state’s EEZ, even if they change ownership.⁴⁵ Norway’s blacklisting also extends to port calls 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 other states capable of denying fishing vessels access or outlets. Much of the IUU fishing in the European Arctic 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 licenses, or prohibit their entry into port, such vessels will become far less attractive to IUU operators.⁴⁶

Due to Norwegian blacklisting, 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 coastal states’ 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 jurisdic-

44. FAO Agreement on Port State Measures, Arts. 7 (port designation), 8 (advance request), and 11 (use of ports).

45. Stokke 2001.

46. Stokke, Olav Schram and Davor Vidas, “Regulating IUU Fishing or Combating IUU Operations?” in *Fish Piracy: Combating Illegal, Unreported and Unregulated Fishing*, Paris: Organization for Economic Co-operation and Development 2004 pp. 19–47.

tion 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 combined with coastal-state preparedness to allocate to Iceland a quota for Northeast Arctic cod.⁴⁷ While Norway has stated 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.

As with cargo documentation requirements, multilateral vessel lists are more potent than unilateral ones. The NEAFC created two vessel lists in 2004.⁴⁸ On its Observation List are 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 force 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*. Regional fisheries management institutions and the interaction between them significantly enhance the efficacy of vessel lists in combating IUU fishing.

4.3 Constraining transshipment

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

47. Stokke, 2001.

48. NEAFC, Recommendation VIII from the 22nd Annual Meeting (2003); 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.

or domestically now turned to Europe. At that time, none of the measures under the Joint Fisheries Commission or the NEAFC Scheme of Control and Enforcement concerned at-sea transshipment of Northeast Arctic cod, or the subsequent entry of the cargo into ports beyond the Barents Sea. That situation created opportunities for violating quota constraints that numerous vessels exploited, as shown in Figure 1.

After several years of mounting evidence of IUU fishing, the Joint Fisheries Commission took action on transshipment. It committed Norway and Russia to require of their fishing vessels from 2005 that they 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 2007, the strengthening of that Scheme extends such commitment to all participating states.⁴⁹ Like the documentation schemes and the blacklisting of vessels with a history of IUU activities, these national, bilateral and regional measures to control regional transshipment have considerably narrowed a gap in the web of information necessary for fisheries enforcement activities in the European Arctic.

5. Port-state denial and regime effectiveness

A fisheries regime is effective if it serves to change target-group behaviour in ways that improve harvesting pressures and, ultimately, the state of stocks. Considerable evidence indicates that port-state measures have served to enhance the effectiveness of the Barents Sea fisheries regime.

A year or so after the first Scheme of Control and Enforcement entered into force, the NEAFC Secretariat reported that all elements of the tracking and reporting system had been tested and were working well; and by 2002, two thirds of the flag-state reports were fully automatic.⁵⁰ Under the first Non-Contracting Party Scheme, the Faroe Islands had banned landings by a Belize-flagged vessel already in 2000. 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 co-operating state. Subsequent listing of a Bahamas-registered vessel induced that state to attend the NEAFC annual meeting as observer, to consider amendments to its fisheries legislation,⁵¹ and

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

50. Stokke 2009.

51. NEAFC, Report of the 25th Annual Meeting of the North-East Atlantic Fisheries Commission (www.neafc.org). London: North-East Atlantic Fisheries Commission 2006.

to apply for status as a co-operating state, as did also Panama the same year.⁵² In 2007, six out of twenty vessels on the NEAFC Confirmed List were in the process of being scrapped, nine were held back in NEAFC ports, and the remaining five were operating outside the Northeast Atlantic.⁵³ As a result of bilateral agreements and the mutual endorsement of listings under NEAFC and NAFO, vessels still in operation have been denied port access not only in the Northeast Atlantic but also by states in North Africa and North America.⁵⁴ That means that regional port-state measures are adding significant costs to IUU harvesting in the European Arctic.

Even more importantly for the combat of IUU fishing for Northeast Arctic cod, there has recently been a marked increase in the number of vessel trips by Russian vessels from the Barents Sea fishing grounds to Murmansk or Archangel⁵⁵ facilitating the tracking by Russian authorities of total catches. While this change probably reflects also other developments like the rise in purchasing power in north-west Russia, it may also indicate greater transparency of Russian landings deliveries in European ports. The latest Norwegian estimate of Russian overfishing of Northeast Arctic cod indicates a dramatic decline, from 80 thousand tonnes in 2006 to around 15 thousand tonnes in 2008.⁵⁶ Seen together with the evidence above, these developments indicate that port-state measures under NEAFC are contributing significantly to problem solving, under not only that organization but in the Norwegian–Russian Joint Fisheries Commission as well.

6. Conclusions

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 failed to prevent very substantial IUU fishing for Northeast Arctic cod, especially in the first halves of the 1990s and 2000s. The impacts on stock sustainability, distribution of gains, corruption, and quota responsibility among managers and fishers could be severe. Recent port-state

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- 52. NEAFC, Report of the 26th Annual Meeting of the North Atlantic Fisheries Commission (www.neafc.org). London: North-East Atlantic Fisheries Commission 2007.
 - 53. NEAFC, Report of the Extraordinary Meeting of the North-East Atlantic Fisheries Commission 13–14 June 2007. Volume II – Annexes (www.neafc.org). London: North-East Atlantic Fisheries Commission 2007.
 - 54. NEAFC, Developments Since September 2006 in NEAFC's Attempts to Combat IUU Fishing (www.neafc.org). London: North-East Atlantic Fisheries Commission 2007.
 - 55. Norway 2008 p. 7.
 - 56. Norway, Directorate of Fisheries, Status Report for 2008: Russian Fishing of Cod and Haddock (www.fiskeridir.no). Bergen: Directorate of Fisheries 2009.

measures to combat IUU fishing in the Northeast Atlantic complement traditional fisheries enforcement activities by exploiting the need that fishing vessels have for landing or transshipping their cargo. Compared to monitoring and inspection at sea, such measures are cost-effective. The use of port-state 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. Certain key components of that scheme – especially the obligation to deny landings or transshipment by foreign vessels unless the flag state confirms that the fish was taken in accordance with national and international regulations – appear in somewhat diluted form in the 2009 FAO Agreement on Port State Measures, which will apply globally when in force. Other important measures under the NEAFC Scheme are vessel lists and extensive constraints on at-sea transshipment. The recent extension of this scheme to cover fish taken in the regional EEZs as well has greatly enhanced its efficacy in the combat of IUU fishing in the European Arctic.

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Олав Шрам Стокке / Olav Schram Stokke

Серьезная работа, связанная с вопросами рыболовства, была проведена в Европейской части Арктического океана, особенно в водах находящихся под юрисдикцией Норвегии и России. Государства региона проделали значительную работу по предотвращению незаконной, неконтролируемой и нерегулируемой рыбной ловли (IUU). Во время 2000-х годов нелегальная ловля атлантической трески достигла такого уровня, когда запасы рыбы подверглись опасности исчезновения, а ограничения по квоте прибрежных государств привели к обогащению мошенников, а не законопослушных рыболовецких судов, а также содействовали распространению коррупционных практик в цепочке производства и распределения. Усиление разнообразных мер с целью предотвращения незаконного, неконтролируемого и нерегулируемого рыболовства, предпринимаемых портовыми государствами, выглядит многообещающим. Подобного рода меры включают в себя широкий спектр действий от одностороннего отказа принять рыбу, выловленную вне соглашения по международной квоте, до многосторонней схемы контроля и принуждения под эгидой Комиссии по рыболовству в северо-восточной части Атлантического океана (НЕАФК).