Working Paper

Research Division EU External Relations
Stiftung Wissenschaft und Politik
German Institute for International and Security Affairs

Bettina Rudloff

The EU as fishing actor in the Arctic

Stocktaking of institutional involvement and existing conflicts

SWP
Stiftung Wissenschaft und Politik
Deutsches Institut für Internationale Politik
und Sicherheit
Ludwigkirchplatz 3–4
10719 Berlin
Telefon +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org

Working Paper, FG 2,
2010/ 02, July 2010,
SWP Berlin

Paper in the framework of the Norwegian research programme “Geopolitics in the High North”, Work Package 4: “The EU and the Arctic – defining an interest”

Abstract

Whether the EU does or should have an interest in the Arctic and accordingly should or should not follow an explicit Arctic strategy remains under political debate. Fisheries is mentioned as one of the relevant sectors both in the Commission’s Communication of 2008 and the subsequent Council’s Conclusion of 2009 on the Arctic region and on Arctic issues.
The paper identifies the role of the EU as fishing actor and as trade partner for fish trade. Therefore the recent relevance of Arctic fishing for the EU compared to other fishing countries and the EU’s position as economic fish market for Arctic countries are analyzed. Additionally, the involvement of the EU in relevant regimes for Arctic fisheries and trade is elaborated with a special focus on those regimes that cover possibly newly accessible fishing stocks due to climate change. Finally, existing patterns of conflicts between the EU and Arctic countries on fish matters are summarized. Based on this stocktaking potentials for the future role of the EU in Arctic fisheries will be concluded.

I would like to thank my colleagues Isabelle Faulhaber and Dr Carsten Schymik, German Institute for International and Security Affairs; Dr Erik Molenaar, Netherlands Institute for the Law of the Sea, and Professor Alf Hakon Hoel, University of Tromso, for their helpful comments and clarifications. The author is completely responsible for any remaining errors.

Table of Contents

1. Introduction

Whether the EU does or should have an interest in the Arctic and accordingly should or should not follow an explicit Arctic strategy remains under political debate. The EU expressed some abstract interests in both, as laid out in the Commission's Communication of 2008 and the subsequent Council's Conclusion of 2009 on the Arctic region and on Arctic issues.
Both documents refer to four specifically mentioned sectors, one of which is fisheries.
Regarding fisheries, both documents express the EU's aim to exploit Arctic fisheries resources at sustainable levels whilst respecting the rights of local coastal communities. As specific action a moratorium of catches is proposed for those areas which face some governance and regulatory gaps. These gaps may become relevant once climate change makes new fish stocks accessible in areas not addressed by current fisheries regimes.

This article's objective is to contribute to the overall question of whether there is an EU interest in the Arctic and how this interest can be expressed in specific policies and actions. It will only address the fisheries sector and, more specifically, only the issues of fisheries' catches and trade. Therefore relevant cross-sectoral dimensions, which influence fisheries as well – like shipping and gas and oil exploitation –, are excluded.

The current role of the EU as Arctic fishing actor will be identified in order to assess the potential to contribute to or influence future fisheries regimes with Arctic relevance. This assessment will be based on the economic relevance of the EU referring to catches and as economic market for Arctic countries' exports. Additionally, the EU's involvement in existing regimes on catches and on trade indicates whether the current involvement in regimes shows gaps.

The paper starts in *chapter 2* with the identification of specific characteristics of the Arctic fishing area causing specific challenges which may call for specific responses. *Chapter 3* identifies the underlying assumptions for the subsequent analysis, i.e. the definition of the evaluated area, the relevant fish species and the analysed fishing actors. *Chapter 4* is dedicated specifically to the EU, first describing the relevance of the EU as a fishing actor compared to other actors in the Arctic and, second, identifying the EU's involvement in existing fisheries regimes in the Arctic. These regimes will be differentiated first with respect to their primary aim of addressing either catches or trade. Secondly, these regimes are divided with respect to their regulatory level, i.e. as global or multilateral, regional or bilateral regime. It concludes with a synopsis on how all Arctic fishing actors are related to each other by memberships in existing fishing regimes. *Chapter 5* focuses on existing conflicts either on catches or on fish trade across the EU and other Arctic fishing actors respectively. Finally, *chapter 6* draws first conclusions for future EU positions as regards fisheries in the Arctic.

2. Special sensibility of the Arctic fishing areas

2.1 General challenges for fisheries

Rapidly increased global demand and trade. Seafood does not belong to the most traded goods; however trade has been growing rapidly: From 1976 to 2006, global seafood trade value increased threefold, from $28.3 billion to $86.4 billion.[1] Major explanatory factors at the demand side are population and economic growth and also a changed consumption pattern over time replacing red meat by white meat and fish. At the supply side, technological progress resulted in better infrastructure by introduction of the freezing technology in the 50s, which drastically expanded the opportunities for long distance trade of such a highly perishable good like fish. The hereby raised competitiveness of seafood compared to other food has led to reduced prices: During the period of 1976–2006, the global trade volume in tons has increased at a higher pace than its value – from 7.9 million tonnes to 31.3 million tonnes, which is a fourfold increase and hence a reduction in the unit value of seafood.[2]

High risks of stock exploitation. The raise in catches increasingly endangers healthy fish stocks. Some assessments indicate that worldwide 75% of straddling and high seas fish stocks are overexploited or even depleted.[3] Overexploitation can lead to a broad set of losses starting from the burden for biodiversity but as well leading to a loss in fisheries' profitability and thereby an increasing overcapacity of inefficient fleets can be observed.
One major reason of over catching is related to the characteristic of fish stocks as renewable resource and of their living surroundings: The access to fish stocks was traditionally treated as common good by offering free access to fishing actors, but at the same time fish stocks do not fulfil the non-rivalry characteristic of common goods. In this context no – or more precisely – no secure property rights have led to the "tragedy of the commons" for fish.[4] Optimal fisheries management needs to balance the current catches against future fish stocks, i.e. taking into account the stocks' recovery and interest rates for future returns comparative to current returns.[5] This optimization involves a high degree of uncertainty as assessing biological growth of stocks is difficult.

General challenge of uncertainty. Fish stocks management always has faced the challenge of uncertainty due to the complexity of marine ecosystems, which makes it difficult to forecast stock sizes and adjust management regimes accordingly. Already at the beginning of the 20th century, Hoydal identified rapid changes in stocks of cod at West Greenland.[6] This is especially challenging regarding migrating species that change their living surroundings and by that affect as well other fish species through the food web. This uncertainty is reflected in the data quality and requires a careful use of data, too. Therefore monitoring of current fish stocks already is difficult and even more difficult

[1] Frank Asche and Martin D. Smith, *Trade and Fisheries: Key Issues for the World Trade* (World Trade Organisation, 2010) Staff Working Paper ERSD-2010-03.
[2] Ibid.
[3] OECD, *Strengthening Regional Fisheries Management Organisations* (Paris: OECD Publishing, 2009), p. 17.
[4] Garrett Hardin, "The Tragedy of the Commons", *Science*, Vol. 162, No. 3859 (December 13, 1968), pp. 1243-1248.
[5] C.W. Clark and G.R. Munro, "The Economics of Fishing and Modern Capital Theory: A Simplified Approach", *Journal of Environmental Economics and Management* 2 (1975), pp. 92-106.
[6] Kjartan Hoydal, "The RFMO approach – NEAFC Mandate in the Polar region" (presentation at the "International Arctic Fisheries Symposium" in Anchorage Alaska, 19-21 October 2009).

is any prognosis of recovery and thereby the size of future stocks. Accordingly, the evaluation of related future socio-economic effects bears high degrees of uncertainties.[7]

Different area definitions. The uncertainty in data as such is not the only challenge. In addition, underlying definitions how and where to investigate and notify data may overlap or conflict with relevant institutional areas. As a consequence data do not always consistently exist for all institutional areas making a data-based evaluation of institutions involved in fisheries management difficult. A comprehensive data set comes from the FAO,[8] using a specific area definition which only partly relies on regional regulatory regimes and only partly is equal to relevant ecosystems (Annex 1).

Complex and potentially conflicting institutional settings. The set of existing regimes on fisheries is extremely complex, as they are established at all regulatory levels, i.e. the global, multinational, regional, bilateral and national level. Additionally, some regimes are only spatially defined, while others are on specific species. And finally, different measures address different types of actors, they are defined for states (catching and flag or port states) and private actors like vessel companies. Besides regimes on fisheries in the narrow sense – i.e. on catches – as well trade regimes affect the competitiveness of single countries' and thereby their interest in catches. This may stand in contrast to a certain mandate of catch regimes aiming at catch limits. Similarly, these trade regimes appear at all regulatory levels. Recently there has been an increasing emergence of regimes combining catches and trade by using trade measures as incentives or penalties to enforce certain management targets like limitations of catches ("cross-regimes" in the following).
Other challenges for the institutional mapping arise from uncertainties on the spatial distribution of stocks. A formerly spatially defined regime can become upset leading to conflicts among countries: An example for such an institutional gap due to migration is the conflict between Norway, Russia and Iceland on Northeast Atlantic cod in the 90s: as cod migrated from the coastal sea under national jurisdictions into areas of the High Seas, all countries caught cod and by that undermined a former common management strategy between Norway and Russia.[9]
This calls for flexible institutions able to respond to such changes.

Climate change adding to the current uncertainty. Effects of climate change can be interpreted as an increase in uncertainty.[10] These effects can be both negative and positive – depending very much on the areas and specific species. An overall assessment of benefits and burdens is difficult due to the complex interaction in ecosystems and the complexity in affected activities for different actors in different regions. In principle the following effects can appear:

- *Direct impacts* encompass all effects which are immediately linked to changes in relevant ecosystems media for fish like an increase in water temperature, reduced salinity due to melting ice, the acidification due to an increased uptake in CO^2 and oceanographic changes via affected streams and waves.[11] Vulnerability to diseases and parasites may as well be affected by imported infectious actors and the competition with introduced species and other animals in the food web including birds affects stocks size. Also, mammals may affect complex interactions between species.

[7] Hjálmar Vilhjálmsson and Alf Håkon Hoel, "Fisheries and Aquaculture", in *Arctic Climate Impact Assessment (ACIA) Scientific Report* (Cambridge et al.: Cambridge University Press, 2005), p. 693.
[8] See for different databases at the FAO <http://www.fao.org/fishery/statistics/collections/en>.
[9] Vilhjálmsson and Hoel, "Fisheries and Aquaculture" [see note 7], p. 707.
[10] Hoydal, "The RFMO approach" [see note 6].
[11] Erik J. Molenaar and Robert Corell, *Background Paper Arctic Fisheries*, Arctic TRANSFORM (2009), at: <http://ec.europa.eu/maritimeaffairs/Arctic_fisheries_en.html>.

- *Indirect impacts* are caused by changes in activities that may influence marine ecosystems like transport and shipping, the exploitation of resources and the relative relevance of different fisheries systems like commercial and subsistence fisheries. As well changed land-based activities may affect marine ecosystems by linked emissions.

The potential increase in uncertainty due to climate change supports the requirement on institutions for best adaptability, i.e. their capability to respond flexibly to potential changes once they appear.

2.2. Specific challenges for Arctic fisheries

In principle, the Arctic marine ecosystems including fisheries are affected in the same way as all marine ecosystems worldwide.[12] However, some specifics may be identified towards a specially high vulnerability of the Arctic to the general impacts of climate change. A major reason is the change in ice coverage, which is a unique characteristic of this region.[13] This calls for specific institutional challenges, too, as described below.

Limited scientific knowledge due to ice coverage. Limited access to the ecosystems below the ice restricts knowledge on existing stocks and their size. As well it is not discovered yet how ecosystems actually need the ice coverage to influence nutrients and local climate. These limits increase the anyhow existing uncertainty in fish stock management, especially when it comes to future fishing potentials of Arctic fisheries.

Higher speed and degree of the climate-induced direct changes. The Arctic is more directly affected than other areas as first estimates indicate a higher regional increase in temperature compared to the global average. Second, the impacts can be by expected as appearing more rapidly due to melting ice changing immediately the local conditions. Hereby, on the one hand, the extinction of Arctic-specific species is probable while on the other hand potentially other species may become more relevant.

Potentially high indirect impacts due to rise in shipping and land-based activities. Melting ice may affect shipping potentials, too. This may increase all potential burdens to ecosystems by fuel emissions, shipping accidents, disturbances for fish migration routes and traffic noises. Again, a prognosis of future marine activities is difficult to derivate.[14] Land-based activities may as well be affected more rapidly due to an increase in sea-levels that influence coastal activities. Hereby all negative ecological impacts of activities may be potentially higher, like the erosion of hazardous substances or the change in water quality due to increased pollution of rivers flowing into Arctic seas. Also, an increase in land activities, which were previously restricted by lower temperature, may occur: If, for example, farming will become more relevant, related negative effects like contamination with pesticides and nitrate may increase. On the flipside, positive impacts appear as well if certain damaging activities cannot be kept, e.g. due to the warming of permafrost.

---

[12] Molenaar and Corell, *Background Paper Arctic Fisheries* [see note 11], p. 10.

[13] Stephan Macko, "Potential change in the Arctic environment: not so obvious implications for fisheries" and William W.L. Cheung, "Climate Change and Arctic Fish Stocks: Now and Future" (presentations at the "International Arctic Fisheries Symposium" in Anchorage Alaska, 19-21 October).

[14] A central activity of the Arctic Council is the "Arctic Marine Shipping Assessment" (AMSA). The respective report of 2009 identifies 4 potential scenarios and 120 underlying factors which influence the activities. Arctic Council, *Arctic Marine Shipping Assessment Report* (2009), available at: <http://www.nrf.is/index.php/news/15-2009/60-Arctic-marine-shipping-assessment-report-2009>.

Uncertainty on future fishing potentials. The limited scientific knowledge restricts any projection of future fishing in the Arctic seas that are currently not accessible. The present fishing activities undertaken in accessible areas are comparatively low at a global scale (chapter 3). Some estimates do not expect any high future relevance of fisheries in newly accessible areas in the future:[15] Major assumptions are that the ice-melt anyhow will open access only during the summer and that potential new fishing areas will belong to the deep seas which are currently not relevant for fishing activities. However, flexible management rules and governance structures may help to be prepared for potential future changes.

Higher need for adaptability of already weak institutions. Based on this potentially higher vulnerability of the Arctic, one can call for a stronger need for adaptable institutions compared to other regions. If ice-melt leads to new access to marine areas, maybe new competencies have to be established, which formerly were not necessary:
As the ice probably starts melting from the borders first the coastal states may be affected by facing new access to formerly covered waters. Then domestic regulations may become applicable which potentially would need to be adjusted to newly accessible stocks.[16] If new high seas were accessible to fisheries than in principal customary law or existing relevant Regional Fisheries Management Organizations (RFMOs) (chapter 4.2.1.2) would be applicable. In Arctic areas no spatially defined RFMOs addressing specific regional conditions exist what may require for new RFMOs or for extending existing RFMOs to these areas. [17]

3. Analysis coverage: Arctic fishing areas, species, actors, fishery activities

Different definition of Arctic marine areas. There is no generally valid definition of the Arctic Ocean. Rather than that, each definition can serve its own purpose.[18] According to different criteria, a different geographical scope of marine Arctic areas can be defined leading to heterogonous borders and to difficulties for a sound and distinct analysis.

Based on *(marine) ecosystem characteristics*, four major areas with current major fisheries' relevance can be distinguished:[19]

(1) the North East Atlantic (Barents Sea, the east and south of the Norwegian Sea, waters around Iceland and East Greenland),
(2) the Northwest Atlantic (Northeast Canada Sea around Newfoundland and Labrador area)
(3) The Northwest Pacific (southwest-line along mainland coast of Russia to Alaska, Canada and USA)
(4) and the Northeast Pacific (Bering Sea).

Due to the relevance of anadromous fish like Salmon from an ecosystem-based perspective additionally rivers flowing into the Arctic area should be considered.[20]

---

[15] See for example T. Koivurova; E.J. Molenaar and D.L. Vanderzwaag "Canada, the EU, and Artctic Ocean Governance: a tangled and shifting seascape and future directions", *Journal of Transnational Law & Policy*, 18 (spring 2009) 2, p. 282.
[16] Timo Koivurova and Erik J. Molenaar, *International Governance and Regulation of the Marine Arctic, Overview and Gap Analysis* (Oslo: WWF International Arctic Programme, 2009), p. 41.
[17] Koivurova and Molenaar, *International Governance and Regulation of the Marine Arctic* [see note 16].
[18] Brian Van Pay, "National Maritime Claims in the Arctic" (presentation at the 33rd COLP conference, Seward, Alaska, May 21, 2009).
[19] *Arctic Climate Impact Assessment* (ACIA), Scientific Report (Cambridge et al.: Cambridge University Press, 2005).

Additionally, the US National Oceanic and Atmospheric Administration (NOAA) defined even more detailed 17 *large-marine ecosystems* relevant for the Arctic.[21] These are areas of ocean space of approximately 200,000 km² or greater, adjacent to the continents in coastal waters, where primary productivity is generally higher than in open ocean areas. The underlying idea is to define areas according to other than regulatory criteria (e.g. hydrology, and fisheries' productivity). This mapping refers to the UN goal to implement such approaches as general principle by 2010 and has been integrated already in some Agreements, like the Convention for Biodiversity.

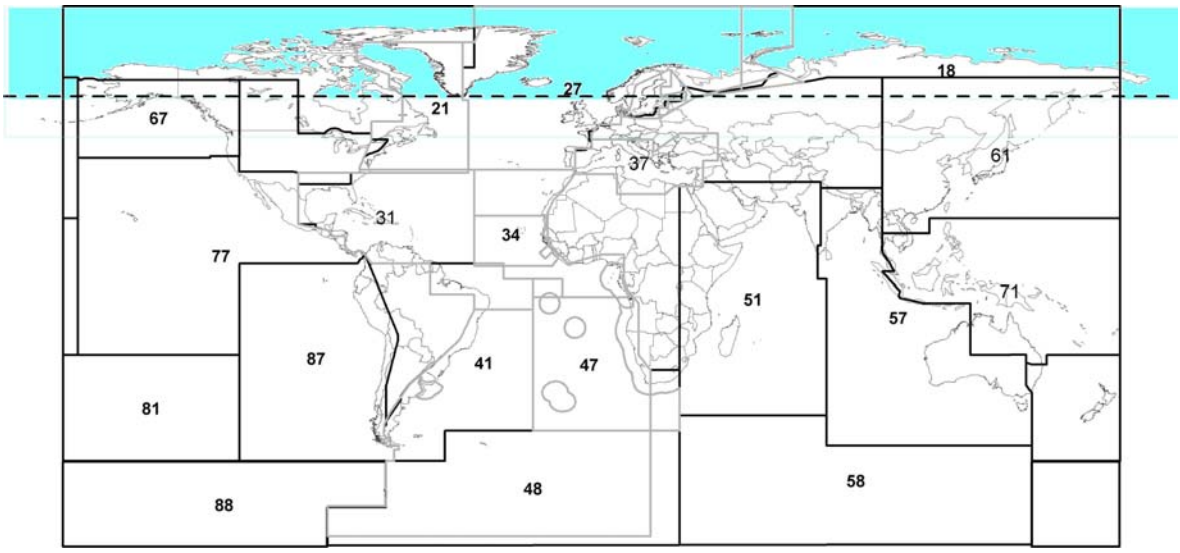
Statistically relevant Arctic areas are defined by the FAO and are only partially compatible with the ecosystem borders: some of the areas relevant for Arctic statistics (18, 27, 21, 67 and 61) are larger than the ecosystems.[22] The FAO explicitly defines only area No.18 as Arctic waters.

According to the *institutional* coverage of marine areas, other spatial regions are relevant which may be different from geographical borders or the statistical areas and which may overlap. Some areas in the Arctic waters belong to the *High Seas* and by that are ruled under customary law or by RFMOs, if existing (see chapter 3): the Central Arctic Ocean's "High seas pocket", the "Banana" and "Herring loophole" in the Norwegian Sea, the "Loophole" in the Barents Sea and the "Doughnut" hole in the Bering Sea.[23] All other parts of the relevant ecosystem-based and statistical areas fall under national jurisdiction, i.e., they face different problems of international cooperation than the freely accessible High Sea regions.

Definition applied. In the following analysis, Arctic marine areas are defined following the statistical definition of FAO areas but limiting them to those parts that are located north of 66° latitude:[24] Hereby the FAO area 18 is used completely but only northern parts of area 21 (0A, 0B, 1A-F) and 27 (I, II, Va, XIV). According to this definition, areas 61 and 67 (including the Bering Sea) are excluded as they fall below of 66° latitude (shadowed area in graph 1).
As the USA catches mainly in the south of the area 27 and in area 67 the USA is not addressed as fishing actor - however being an Arctic country.

[20] Molenaar and Corell, *Background Paper Arctic Fisheries* [see note 11], p. 7.
[21] See NOOA, available at <http://www.lme.noaa.gov/index.php?option=com_content&view=article&id=47&Itemid=41>.
[22] FAO Geonetwork, *FAO Statistical Areas for Fishery Purposes*, available at <http://www.fao.org/geonetwork/srv/en/main.home> (last checked: 28 April 2010).
[23] Alf Hakon Hoel, "Do We Need a New Legal Regime for the Arctic Ocean?" *The International Regime of Marine and Costal Law*, 24 (2009), p. 451.
[24] For some areas the excact limitation to the 66° latitude was not possible due to missing subdivisions of statistical areas.

Graph 1: Arctic fishing areas



Source: Based on FAO Geonetwork, *FAO Statistical Areas for Fishery Purposes*, available at <http://www.fao.org/geonetwork/srv/en/main.home> (last checked: 28 April 2010).

Arctic Species. The broad spatial extension implies that large differences in ecosystems and fish species are included – especially comparing the Atlantic and the Pacific site of the area.[25]
The following species are defined as *specific circumpolar species*:[26] capelin (*Mallotus villosus*), Greenland halibut (*Reinhardtius hippoglossoides*), northern shrimp (*Pandalus borealis*) and polar cod (*Boregadus Saida*) or northeast cod (*Arctogadus glacialis*). Not specifically Arctic but commercially relevant in this area are Atlantic cod (*Gadus morhua*), Alaska pollock (*Theragra chalcogramma*), haddock (*Melanogrammus aeglefinus*), Pacific cod (*Gadus macrocephalus*), snow crab (*Chionoecetes opilio*), herring (*Tepre Pacificum*), Atlantic salmon (*Salmo salar linnaeus*) and red king crab (*Paralithodes camptschaticus*) (Annex 2).

Of major relevance within the defined Arctic fishing area are capelin, Atlantic cod and Atlantic herring accounting for 60% on average of all catches in the years 1990–2006 (Annex 3).

Arctic fishing actors. The focus point of the following analysis will be the perspective of the EU in relation to Arctic states. This relation is institutionally very complex due to the status of some countries towards the EU:

- The *EU* will be addressed first as one single actor, which either refers to the Commission as far as representation in international agreements is concerned or to the sum of all Member States as far as catches are concerned. Additionally, those EU Members will be covered individually that are classified as one of the eight Arctic states and thereby are members of the Arctic Council (AC). These EU Members are Finland, Sweden and Denmark. Some EU Members are as well addressed individually if relevant, e.g. if they appear as large catching actor.
  Special cases are *Greenland and Faroe Islands* as being autonomous of Denmark despite of foreign policy and defence matters. As fishing management as part of the European Common

[25] Molenaar and Corell, *Background Paper Arctic Fisheries* [see note 11], p. 8.
[26] *Arctic Climate Impact Assessment* [see note 19], p. 693.

Fisheries Policy always was an exclusive competence EU Member States cannot become members of relevant RFMOs alongside the EU. One exception are overseas countries and territories and therefore Denmark often is member on behalf of the Faroe Island and/or Greenland.[27] The status of overseas countries and territories leads as well to specific support of the EU in line with development aid for other overseas countries.

- The *Arctic actors* (Canada, the USA, the Russian Federation, Norway, Iceland) will be addressed regarding their relation to the EU actors. Due to the statistical mapping, the USA is not being covered by fishing data. Special positions within this group hold Iceland and Norway as Members of the *European Economic Area* (EEA) being affected by establishing a free trade area with the EU or at least preferential market access into the EU. Iceland holds another additionally special relation as *accession country* to the EU. Ongoing accession negotiations affect primarily the integration into the EU's Common Fisheries' Policy and the allocation of fishing rights.

Overall volume of current Arctic fisheries. The analysis only refers to catches and not to aquaculture. Data on catches are characterised by a certain degree on uncertainty. Current catches depend on valid notifications of the respective catching country. Any forecasts on future potential are highly complex and depend on biological growth models, interactions within and across ecosystems and changes in climate conditions. Therefore only the recent status is identified, which already bears uncertainty.
At present, the global relevance of Arctic fish captures[28] is very low: the share of Arctic in global fisheries has been stable at 4 % in 1975-2006, equalling 3.5 million tons per year. A historically unique maximum was reached only in 1977 with 10% caused by a lower level of global fisheries but not by higher Arctic catches. (Annex 4).
The most relevant fishing area within Arctic waters is the Northeast East and Central Atlantic (northern part of FAO area 27), counting for 96% (1990-2006) of all Arctic catches.

This limited overall share can nevertheless be relevant for single countries: For example, in Norway, Arctic fisheries during the years of 1975-2006 covered on average more than 50% of all Norwegian fishing worldwide (50% in 2006, 82% in 1977).[29]

The current allocation of catches in the Arctic is dominated by the Arctic countries, holding on average 90% of all Arctic catches during 1990–2006, whereas the EU excluding Sweden, Finland and Denmark only hold for 4% (Annex 5). Within the group of Arctic countries most catches are undertaken by Iceland and Norway with 74% in 1990-2006 of the total catches (Annex 6).

[27] Koivurova, Molenaar and Vanderzwaag, "Canada, the EU, and Arctic Ocean Governance" [see note 15].
[28] All figures only address catches, i.e. aquaculture is excluded, although it has gained importance and is becoming very relevant for some actors.
[29] FAO Fishstat database.

4. The EU as Arctic fishing actor

4.1 Economic relevance of Arctic fisheries for the EU: catches and trade

Small share of EU catches. The EU only holds an unimportant share of all Arctic catches of 4% equalling only 139.000 tons in 2006. This represents only 2.6 % of all EU catches of 5.4 Mio tons worldwide.[30]
For single EU members, Arctic catches are differently relevant: the main EU fishing nations in the Arctic region in 1990-2006 were Denmark, Germany, the United Kingdom and Spain (summing up to 70% of all EU-27 catches). Germany holds a share of 19 % on average (Annex 7).

The major species caught by the EU are Atlantic cod, Atlantic redfish and recently increasingly Atlantic herring (Annex 8).

Small economic relevance of the EU's fisheries sector. The fisheries sector in the EU is of minor *overall economic relevance* (Annex 9): on average, fisheries only makes up 0.1% of EU-27 GDP and only 0.5% of export revenues in 2007. Only for Sweden and Denmark the individual figures on export revenues are a bit higher, with 1.5% and 3.8% respectively. For the other Arctic countries shares are higher to those of the EU, with an average of 1% GDP and 8% export revenues for the sum of AC5 which is mainly caused by high shares for Iceland.
As well for *employment*, the fishing sector also does not play a relevant role in the EU, with an average of only 0.21% of total employment in 2006. Denmark has a higher share here, with 0.52%. Again, the fisheries sector is most relevant for the Norwegian employment (1.2%) and especially for the Icelandian employment (6.8%). For the other Arctic countries the shares are equivalent to those in the EU (Annex 10).

EU's high relevance as import market for Arctic countries. The EU is an important market globally, with an import value of $21.6 billion in 2009 (Annex 11). Per capita consumption displays an annual growth rate of up to 1% but differs among Member States, ranging from 57 kg p.a. in Portugal to only 5 kg p.a. in Bulgaria.[31]
While EU production decreased, the overall EU self-sufficiency rate fell from 57% in 2005 to 36% in 2008, indicating that 64% of the EU's demand can only be satisfied by imports.[32]
Relevant suppliers of *EU imports* are only some of the other Arctic actors: Norway is the major supplier, covering 20% of all EU fish imports in 2009, Iceland only covers 6%, the USA 4% and China 9%. (Annex 11). But from the perspective of the Arctic countries, the EU often represents the dominant export destination (Annex 12a): For Norway and Iceland the EU is nearly the only export destination with 80% of all Icelandian and 60% of all Norwegian exports being traded to the EU in 2008. For the USA, Canada and Russia, this dominance is less with 25% of all US, 12% of all Russian and 10% of all Canadian fish exports being exported to the EU.

Within the EU the most important markets of Member States are Denmark and the UK for Canada, the UK for Iceland, France for Norway and Germany for Russia and for the USA (Annex 12b).

[30] FAO Fishstat, Eurostat.
[31] Facts and Figures on the CFP 2008.
[32] Council Regulation (EC) No 1062/2009 of 26 October 2009 opening and providing for the management of autonomous Community tariff quotas for certain fishery products for the period 2010 to 2012 and repealing Regulation (EC) No 824/2007, para. 1.

Regarding *fish exports*, the EU exports only 28% of overall fish exports worldwide, equivalent to $3.5 billion in 2009[33]: Major exporting Member States are Spain, Denmark and the Netherlands, offering together 41% of all EU exports. Most relevant destinations of EU fish exports are Japan and Switzerland. But some Arctic countries are relevant as well: out of all EU fish exports in 2009, 9% is exported to Russia, 11% to the USA and 4% to Norway (Annex 13). In total the EU covers only 4.4% of all fish imports into the AC5.[34]

4.2 The EU and fishery regimes in the Arctic

The "double-level fisheries' bowl". The overall institutional setting for all fisheries can be characterised as a complex system of regimes at very different regulatory levels, i.e. global/multilateral, regional, bilateral and national. Additionally, these regimes can be separated into two different types regarding their major aims: the first category is management regimes which rule mainly catches and the second category are trade regimes ruling market access.
These different regimes may be interlinked – either explicitly because certain management approaches are motivated by trade incentives ("cross regimes") or implicitly, as catches are motivated if market access provisions are attractive.
Therefore, the well-known spaghetti-bowl in the area of trade regimes[35] has an additional level if applied to fisheries: not only trade regimes but as well catch regimes are both composed of regimes at different regulatory levels.

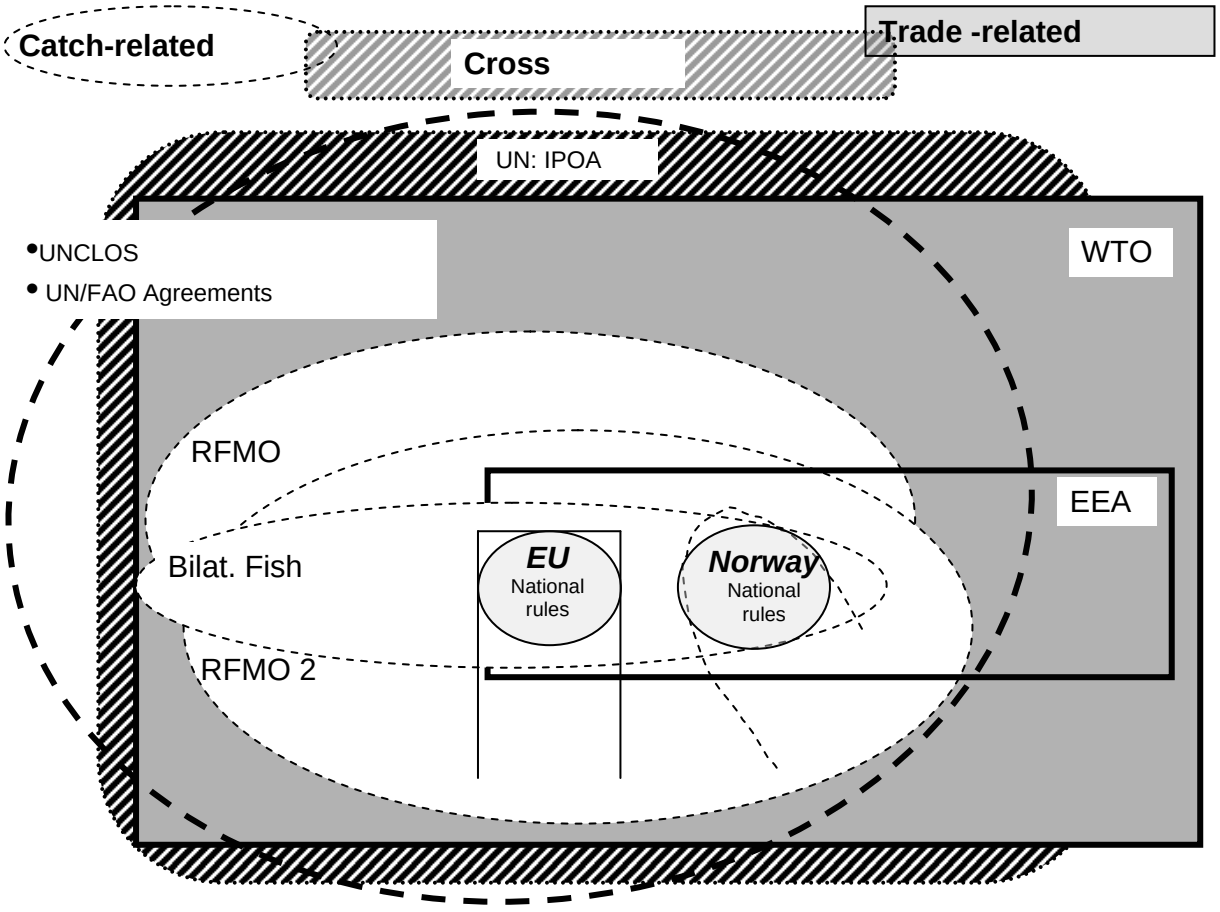
In the Arctic fishing areas all types of catch- and trade-related global/multilateral, regional and bilateral regimes are implemented, what is characterised exemplarily in Graph 2 for the EU and Norway:

- For *catches*, the overall framework is provided at the global level by UN Agreements, at regional level both actors are members in regional fisheries agreements (RFMOs). Additionally, both countries concluded a bilateral fishery agreement.
- On the *trade side*, both countries are addressed by multilateral WTO provisions, and additionally by regional trade provisions in the European Economic Area (EEA). Such trade agreements can be of different design – either addressing market access by tariff concessions to partners or by requiring certain non-tariff barriers like veterinary measures.
- On c*ross regimes* a multilateral UN Action Plan exists which is supplemented additionally by bilateral and national regimes.

All the bilateral relations have to be supplemented by a set of individual agreements the partners may have with other actors for both catches and trade. If all other fisheries actors and their involvement in regimes would be considered, the complexity even increases.

[33] UN Comtrade database.
[34] Ibid.
[35] Jagdish Bhagwati, "US Trade Policy: The Infatuation with Free Trade Areas", in *The Dangerous Drift to Preferential Trade Agreements*, eds: Jagdish Bhagwati and Anne O. Krueger (Washington, D.C.: The AEI Press, 1995), pp. 1-18.

Graph 2: The "double-level fisheries bowl" – exemplary case for the EU and Norway



Source: Own compilation.

4.2.1 Catch regimes

Most fisheries in the Arctic area fall under national jurisdiction as the respective marine areas belong to the coastal state.[36] For fisheries in these areas the coastal state may open access to third countries e.g. by the means of allocated fishing rights. If fish is shared by two different states, these shared stocks should be managed by cooperation between the respective countries as required at UN level. For the High Seas multilateral and regional guidelines exist, for example regarding sustainable management. The EU is member of all relevant regimes at UN level, despite one specific for the Bering Sea. At regional levels the EU is member of all spatially defined RFMOs and all fish-specific ones but one (NPFAC). Additionally, the EU adopted some bilateral agreements.
Due to the EU perspective only those regimes are addressed of which the EU is a member, the overall set of regimes relevant in the area is covered by graph 4.

4.2.1.1 Multilateral regimes

The overall multilateral frame is given by **the UN Convention on the Law of the Sea (UNCLOS)** of 1994, which establishes a consensus between coastal states and foreign states as distant fishing actors: Starting point is the traditional attitude towards the High Seas waters as common good, accessible to

[36] Hoel, "Do We Need a New Legal Regime for the Arctic Ocean?"[see note 23], p. 452.

all states. This free access is restricted by UNCLOS within different areas (Coastal zone at 12 nautical miles NM, Exclusive economic zone EEZ at 200 NM, continental shelf at 350 NM and the High Seas). Within the High Seas in principle free access to fisheries resources is possible but subject to several principles of customary law. For areas under national jurisdictions UNCLOS recommends sustainable management in general terms. For shared stocks a cooperative management between affected countries is recommended.

All Arctic Countries and the EU are party to UNCLOS but the USA. Therefore for the USA only the precursor, the Geneva Convention on the Law of the Sea of 1958, is applicable.

Especially for fisheries in the High Sea and for migrating stocks, UNCLOS is amended by the **UN Agreement on Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks ("Fish stocks Agreement")** of 1995**.** It places RFMOs in a pivotal and central position in terms of its implementation; they provide the primary mechanism through which states should cooperate for straddling and migrating stocks to achieve enhanced resources conservation and management. The **FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas ("Compliance Agreement")** of 1993 requires notification and reporting duties for countries on vessels flying its' flags. Hereby the national authorization to fish within permitted quota can be monitored and fishing without permission can be identified. The **Code of Conduct for Responsible Fisheries** of 1995 covers voluntary guidelines not requiring any specific action but its provisions may be used as a basis for domestic action. A major objective is to adopt measures for the long-term conservation. The **International Plan of Action on Illegal, Unreported and Unregulated Fisheries (IPOA-IUU)** aims at reducing IUU fishing by notification duties and trade measures. As it allows for trade instruments to enforce rules against IUU it belongs to the group of cross-regimes.

Resolutions of the United Nations General Assembly (UNGA) follow the development of UNCLOS and the Fish Stocks Agreement. In 2004, concerned about the world's marine ecosystems and in an effort to promote sustainable fisheries, UNGA adopted texts on the Law of the Sea like the **UNGA Resolution No. 61/105 of 8 December 2006** on sustainable fisheries.

A set of agreements, which more indirectly affect fisheries in the Arctic are the ones aiming at comprehensive ecological and biodiversity aims, such as the **UN Convention on Biological Diversity.**

Box 1: Phases of international fisheries governance

Phase 1: Free access till 1970
Up until the 70s, the coastal state line was defined in a spatially narrow way. This led to fishing activities within the understanding of free access to the High Sea. At the same time, technological progress and an increasing demand pushed global catch volumes. This gradually led to a raised awareness that international cooperation was needed. As a consequence, a set of RFMOs were founded in this phase.

Phase 2: Gradual enclosure of High Seas waters till 1990
By extending the coastal states' jurisdiction to 200 nautical miles the spatial application of open access could be limited by the decision of the coastal state.

Phase 3: Sustainable management in the 90s
The conference on responsible fishing management in Cancun in 1992 sets a starting point for growing activities to ensure sustainable fisheries: In this process the UN Fish Stocks Agreement was adopted and in 1997 the terminology of illegal, unreported and unregulated fisheries was introduced in a meeting of the "Conference on the conservation of AntArctic marine living resources. In this phase as well, RFMOs have been strengthened by several reforms on decision-making and dispute settlement.

Present Phase: Measures against illegal, unreported and unregulated fisheries (IUU)
A respective UN International Plan of Action was adopted in 2001 and initiatives were defined how best to fight against IUU fishing at all relevant levels. The G8 adopted a "Marine Environment and Tanker Safety Action Plan"at the meeting 2003 in Evian. This stressed especially the relevance of addressing the lack of effective flag state control. In December 2003 the OECD set up a ministerial task force under the leadership of the UK to develop recommendations for best practices on measures against IUU. Currently, several countries adopted first legal acts on implementing measures against IUU, for example the EU by the Regulation 1005/2008.

Source: Based on OECD, *Short History of International Actions and Initiatives against IUU Fishing Activities* (OECD 2010), available at:
<http://www.oecd.org/document/ 24/0,3343,en_2649_33901_23460248_1_1_1_1,00.html>.

4.2.1.2 Regional Fisheries Organizations in the Arctic

Regional Fisheries Organizations have a long history and some of them were founded already in the 50s. Their factual importance and number increased with the parallel increase in High Seas' fisheries causing larger awareness that international cooperation was necessary. Globally, two major types of RFMOs can be separated: (1) tuna and migrating species-related RFMOs, which members are more distant-water states and (2) non-tuna organisations, which are spatially defined and by that focus primarily on coastal states as members. In the meantime, relevant (distant) fishing states are often member in different RFMOs, e.g. the EU is member of 5 tuna and 8 non-tuna Organizations.
Additionally, one can separate between organizations with pure advisory mandate or those defining legal standards.
The crucial impetus for RFMOs to become the most relevant vehicle for implementing fisheries management in the High Seas was the UN Fish Stocks Agreements in 1995, defining them as responsible organisations. This was reiterated at the FAO Fishery Committees meeting in 2007,

requiring a regular performance review by each RFMO. The organisational improvement of these RFMOs has been accompanied by guidelines from the "High Seas Task Force", lead by Chatham House, to improve their effectiveness.[37]

Box 2: Typical measures of RFMOs

(1) Fisheries limits like defined quantitative fishing quota of single species, within specific seasons, for vessels or in certain locations. Their volumes should be based on scientific advice e.g. by the International Council for the Exploration of the Sea (ICES) and are adjusted mostly within annual management programs. The quotas are allocated to members and unused quotas often are allocated to third countries.

(2) Technical measures like standards on gear technology, respective marking and labelling of fish and technical control of vessels and equipment.

(3) Control and monitoring for different dimensions:

- **Basic data.** Stocks and vessels' capacities can be regularly monitored by recording and reporting data on catches, on landings and transhipments.
- **Vessel monitoring systems (VMS).** Mandatory notifications of vessels.
- **Monitoring, control and surveillance (MCS).** Port control system of members to ensure compliance.
- **Measures against illegal, unreported and unregulated fisheries (IUU).** Blacklists are defined and published by most RFMOs to deterring IUU vessel activity. Additionally, RFMOs can impose sanction measures like rejecting any formal entry into any port of a RFMOs' contracting state, by banning transhipment and even imports on the flag state. However, in practice this has not been applied so far.

(4) Decision-making and disputes. Some RFMOs have established own dispute settlement procedures to solve conflicts between members.

(5) Relation with non-contracting parties. Third countries can be allocated fishing rights under a specifically earmarked cooperative quota – i.e. the unused quota by members – which only reflect a small share in overall quota for members. Very often cooperation like penalizing a member's infringement as well against third countries' rights is explicitly stressed within RFMOs' mandates.

Source: Own compilation.

RFMOs are responsible for managing fish stocks on the high seas and fish stocks which migrate through the waters of more than just a single State.

[37] OECD, *Strengthening Regional Fisheries Management Organisations* [see note 3].

Institutional coverage of the Arctic by RFMOs

A large part of the marine area in the Arctic is not covered by an RFMO or arrangement with competence over target species other than tuna and tuna-like species and anadromous species (Graph 2). In the following only the two regionally specified RFMOs which have a mandate in the Arctic area will be presented (for all relevant RFMOs in the Arctic see Annex 14). Both base their management rules on the advice of the *International Council for the Exploration of the Sea (ICES).* This is a scientific and research organization compromising more than 1600 scientists from 200 institutes. It provides general research for the North Atlantic but as well stock assessments for management decisions of Member countries and especially for respective RFMOs in this area, such as the NEAFC and NASCO.[38] The assessments serve as reference points for stock management and for the politically set fishing quotas. Among the 20 Member States are 15 EU Member States including Denmark, Finland and Sweden and all 5 Arctic countries.

The spatially defined RFMOs relevant to the Arctic are the following two. They manage stocks of the high seas and joint stocks of several coastal states based on the advice of ICES. As ICES refers to entire stocks and not only to parts in coastal waters any decision of coastal states can affect the overall stock. If stocks are assumed above defined fishing volumes of the coastal states they are allocated to fishing rights to other than coastal states.[39]

(1) The Northwest Atlantic Fisheries Organization (NAFO) was founded in 1978 succeeding a precursor of 1950. Its conventionary area is larger than fishing area 21 (graph 1). Out of the 20 members, 15 are EU Member States and the others the Arctic countries.[40] It manages 20 stocks consisting of 12 species, which are the major fishery resources of the Northwest Atlantic (e.g. capelin, cod, redfish, shrimp, hake and witch and yellowtail flounder) except salmon, tunas/marlins, whales, and sedentary species like shellfish. The EU only accounts for 10% of all catches in the period of 1990–2008; the bulk is caught by the USA and Canada.[41]

In the past, this RFMO envisaged large problems within its regulatory area linked to too highly defined quota, unilaterally extended quota and weak enforcement. This led to a collapse of ground fish

[38] Members: Belgium, Canada, Denmark (including Greenland and Faroe Islands), Estonia, Finland, France, Germany, Ireland, Latvia, Lithuania, the Netherlands, Poland, Portugal, Spain, Sweden, the United Kingdom, Iceland, Norway,the United States of America, Russia. Affiliated countries: Australia, Chile, Greece, Peru, and South Africa.
[39] Koivurova, Molenaar and Vanderzwaag, "Canada, the EU, and Arctic Ocean Governance" [see note 15], p. 281.
[40] OECD, *Strengthening Regional Fisheries Management Organisations* [see note 3], p. 87.
[41] The US catches refer to that part of NAFO that is located southwards of 66° and thereby is not included in all Arctic-related catch data.

stocks in the 90s.[42] To solve these deficits, a huge reform package has been debated since 2000 and could finally be adopted in 2007, mainly initiated by proposals from Norway and Canada and strongly supported by the EU. NAFO also belongs to those RFMOs having an own dispute settlement system. Traditional areas of conflict exist between the EU and Canada on straddling fish stocks, Canada being concerned about less fish straddling its EEZ and being pushed by a large domestic fish industry and the EU as relevant distant fishery actor. However, during the reform process a common position could be developed, which was supported by the EU's signals on reducing its fleet overcapacities.[43]

(2) The North-East Atlantic Fisheries Commission (NEAFC) was founded already in 1953. It consists of a restricted group of only 5 members, which are the EU and Denmark on behalf of Greenland and the Faroe Islands and, as Arctic countries, Iceland, Norway and Russia. Its regulatory area lies within area 27 (graph 1). The main fish in its area is redfish, and the commercially most relevant fish species are spring spawning herring, blue whiting and mackerel. NEAFC can be characterised as a small and quite closed club of coastal states. It underwent a series of changes since 1995, aiming at more effective control and enforcement of adopted measures on gear technology, allocation of fishing quota and explicitly establishes measures against IUU. Under the supervision of NEAFC in 1975 the Joint Russian-Norwegian Fisheries Commission was established. This rules the shared fish stocks management in the Barents Sea (Northeast Arctic cod, haddock and capelin) by not only defining fishing quota but as well jointly deciding on recovery plans and on measures to reduce IUU.

NEAFC often is evaluated as a very successful RFMO due to its small size and an own dispute settlement mechanism like NAFO.[44]

Gaps of RFMO regimes in the Arctic

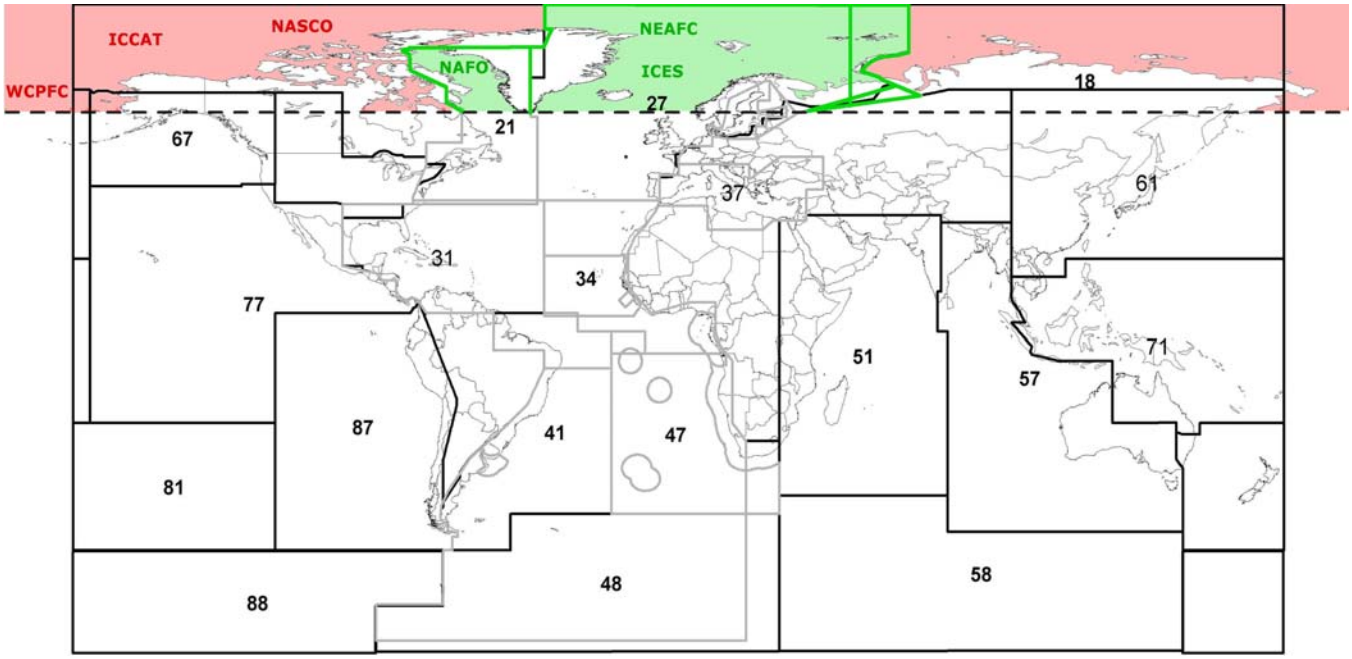
For the total Arctic only a limited geographical part is covered by regionalized RFMOs, namely NEAFC and NAFO, basing their decision on ICES. Both RFMOs address currently the bulk of catches.

This conclusion assumes that the Bering Sea would come within the scope of the Western and Central Pacific Fisheries Commission (WCPFC), and that the International Commission for the Conservation of Atlantic Tunas (ICCAT) and North Atlantic Salmon Conservation Organization (NASCO) may in principle have competence within the entire FAO Statistical Area No. 18.[45] Hereby first no

[42] OECD, *Strengthening Regional Fisheries Management Organisations* [see note 3], p. 93
[43] Ibid.
[44] Ibid.
[45] Koivurova and Molenaar, *International Governance and Regulation of the Marine Arctic* [see note 16], p. 41.

differentiation across different Arctic marine ecosystems within this large area would be applied. And additionally, so far the addressed species tuna and tuna-like fish are not relevant in area 18. If climate change makes area 18 both more accessible and relevant for other species than tuna and tuna-like, the existing RFMO regimes would not be appropriate anymore.

Graph 3: Gaps in Arctic waters for RFMO coverage (related to high seas pockets)



Source: Based on FAO, FAO Geonetwork, *Regional Fishery Bodies (RFB)*, available at <http://www.fao.org/geonetwork/srv/en/main.home> (last checked: 28 April 2010).

Other regional regimes address overall marine ecological issues more comprehensively, such as the **Convention for the protection of the marine environment of the North-East Atlantic** (OSPAR), adopted in 1992 between 15 national governments[46] and the EU. As Arctic countries, Norway and Iceland are signatories. Major recommendations of OSPAR refer to approaches like integrated ecosystems which may interfere with specific competencies of RFMOs. A joint document of OSPAR and NEAFC defines the character of complementary competencies by assuring explicit fisheries as being a sovereign duty of NEAFC. However, the need for mutual cooperation was stressed, e.g. in terms of exchanging information, by supporting further research and by cooperating in spatial planning.[47]

[46] Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.
[47] NEAFC, OSPAR, *Memorandum of Understanding between the North East Atlantic Fisheries Commission (NEAFC) and the OSPAR Commission*, Agreement 2008-4.

4.2.1.3 Tri- and bilateral regimes of the EU

Tri- or bilateral fisheries agreements can first cover all species for which the share of common fish stocks are defined or mutual access to national fishing areas are defined between parties. Secondly, species-specific agreements only address single species and are mainly motivated by ensuring an overall sustainable harvest model.

Coastal States agree first on fishing quota and on that part to be caught in the high seas areas, which then will be allocated by the respective RFMO like NEAFC.

(1) Selected comprehensive Agreements

Iceland and the EU. In 1993, Iceland and the EC concluded a fisheries agreement based on Council Regulation EEC 1737/93 which is implemented in forms of annual fisheries arrangement. The EU obtains redfish catch possibilities from Iceland in exchange for capelin catches for Iceland in EU waters. The main beneficiaries in the EU are vessels from Germany, the United Kingdom, Belgium, and France. There have been complaints that take-up is low because of the conditions imposed by Iceland (fishing zones and periods). The agreement was extended in 2003 for a further six years till 2009.[48]

Norway and the EU. The current Agreement is based on Council Regulation EEC 2214/80 and ensures for Norway an annual fishing quantity of various species of altogether 204,982 tons in 2007 in the Community zone and in Greenland waters in exchange for quantities for the EU within Norwegian waters of altogether 88,809 tons (in 2007). In 2007, overall catches and quota were defined for seven main jointly managed stocks in the North Sea.[49]

Greenland and the EU. The first bilateral Fisheries Agreement dates back to 1985 and was concluded for an initial period of ten years and thereafter extended for additional six-year periods until it was replaced by the only Fisheries Partnership Agreement with a country different from the group of African, Caribbean and Pacific countries. This covers currently the period 2007 – 2012 with a financial contribution of 15 847 244 € including a financial reserve of 1 540 000 € for additional capelin and/or cod quotas and 3 261 449 € for defining and implementing a sectoral fisheries policy in Greenland.

This fisheries agreement allows Community vessels mainly from Germany, Denmark, UK, Spain and Portugal to fish in Greenland's EEZ waters. It defines for a set of fish species quota and allocates it to

[48] Ana Olivert-Amado, *Fisheries in Iceland* (Brussels: European Parliament, 2008), IP/B/PECH/NT/2008-07, PE 408.938.
[49] See <http://ec.europa.eu/fisheries/cfp/external_relations/bilateral_agreements/norway_en.htm>.

EU Member States. This access to national waters is based on access fees as well defined per tons of catches for single species.

(2) Selected Agreements on specific species

Mackerel[50]. This agreed records of 2008 between Norway, the Faroe Islands and the EU under the competences area of NEAFC replaced annual ad-hoc negotiations on quota. Overall catches are limited to 511,287 tons in both waters under the national sovereignty and beyond, for the year 2009. At present only a bilateral agreement between the EU and Norway succeeded.

Blue whiting[51]. Agreed records of 2008 between EU, the Faroe Islands, Iceland and Norway amend the usually multi-annual management arrangement under the area of NEAFC in order to restrict the overall catches of 543,043 tons in both waters under national jurisdiction and beyond in 2009. The allocation of these newly limited total catches is allocated to the actors and the EU receives the bulk with 165,628 tons. Additionally, a further cut in case of unforeseen over fishing is defined.

4.2.2 Trade regimes

Trade-related measures can influence countries' competitiveness, e.g. via domestic subsidies to the fishing industry or via high tariffs protecting the domestic market. Hereby incentives are set to increase fisheries activities that may conflict with agreements on catches.

4.2.2.1 WTO provisions

The key areas of WTO rules refer to tariffs, non-tariffs, and subsidies. Different to agricultural products no specific agreement on fish exists: In the case of tariffs, fish is treated as industrial product and thus tariff decisions are covered by negotiations on non-agricultural market access (NAMA). *Non-tariff barriers* like labelling and marketing measures are ruled by the Agreement on Technical Barriers to Trade (TBT) and specific health-related standards by the Agreement on Sanitary and Phytosanitary Issues (SPS). On *subsidies* to the domestic fisheries sector the relevant agreement is the Agreement on Subsidies and Countervailing Measures (SCM). For *unfair pricing*, the Agreement on Dumping and Antidumping (DAD) applies. Relevant *ecologically motivated measures* can be referred to exceptions to protect renewable resources under GATT Article XX (g) allowing else wise prohibited trade restrictions.

[50] See NEAFC, *Agreed Records on Mackerel in the North-East Atlantic*, at: <http://www.neafc.org/system/files/mackerel_2009_agreedrecord_signed.pdf>

[51] See NEAFC, *Agreed Records on Blue Whiting in the North-East Atlantic*, at: <http://www.neafc.org/system/files/bluewhiting_2009.pdf>.

Other WTO rules may affect fisheries more indirectly, like issues on property rights including rules of origin in the *Trade-Related Intellectual Property Rights* (TRIPS), provisions on port controls can be covered by the *Preshipment Inspection Agreement*. The *Agreement on Trade in Services* (GATS) can be relevant if transport services are affected.

Key rules relevant for all Agreements are the most-favoured-nation principle (MFN) – ensuring equal treatment of all WTO members by certain measures – and the national treatment – ensuring equal treatment of domestic and foreign actors. For the exceptions under GATT XX (g) as well the *necessity* of a protective measure must be justified and case law identified so far *limited extraterritoriality*, i.e. the protection of a resource under another country's sovereignty has hardly been permitted.

Provisions on tariffs

The overall aim of all WTO negotiations is the reduction of tariffs. Different from agriculture, no formula for such cuts could be agreed upon for NAMA tariffs in the last Uruguay Round. For each single tariff on single fish products individually a maximum bound tariff had been agreed upon. As a result, tariffs were lowered up to that level, applicable to all trade partners (most-favoured-nation tariff, MFN tariff). In principle, the actually applied tariffs can only be lower than the MFN tariffs, but exceptional re-negotiations of single tariffs are possible. Other exceptions from MFN are possible only for agriculture and fish in terms of tariff quotas (TRQs), which define lower tariffs compared to MFN for a limited quantity. These are often defined for specific trade partners.

Table 1: EU's tariff pattern for fish

	Average bound tariff	Average MFN tariff applied	TRQ tariffs	Import values under duty free in % of all imports
All	5.5 %	5.6%	Not allowed	28%
Fish	**11.2**	**11.8%**	**0% (tuna) - 8% (hake)**	**5.1%**
Agricultural products	15.9 %	16%	15%	32%

Source: WTO Tariff Profile for the EU, 2009, available at: <http://stat.wto.org/TariffProfile/ WSDBTariffPFView.aspx?Language=E&Country=E27>.

The overall tariff pattern for the EU in Table 1 indicates that fish products are treated more protectively compared to all other products: the average bound and applied tariffs are with 11.2% and 11.8% twice as high as the average for all products. Additionally, only 5.1% of all fish imports into the EU fall under duty-free arrangements, compared to 28% for all and even 32% for agricultural imports. However, preferential tariffs for fish within TRQs are lower compared to agricultural products and range from 0% to 8%. Looking across fish products, the usual picture of tariff escalation can be observed, that is, tariffs on processed fish are higher than for fish for direct consumption.

Technical barriers to trade, sanitary and phytosanitary measures and eco-labelling

Technical measures on fish indicate an enormous increase in numbers: for all analysed Arctic countries more than 100 of such measures were notified since 1995. The EU by far holds the bulk with around 75% of such notified measures (Annex 15).

The *Agreement on technical barriers to trade* (*TBT)* states in the preamble that "no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment." It appears that there is a lot of room for pursuing marine conservation objectives through trade policy. However, further questions remain subject to WTO judgement, for example whether relevant measures are necessary, do not distort trade arbitrarily, that rules are applied uniformly across WTO members (MFN), and domestic actors are not treated preferentially (national treatment).

The *Agreement on sanitary and phytosanitary measures* (SPS) sets rules on national protection of human, animal and plant health by the means of trade barriers. A restriction is integrated by referring to existing standards of standard setting organisations (e.g., for product safety the Codex Alimentarius Commission of the FAO/WHO). Such standards exist for hygiene requirements or for rules on treating

the outbreak of animal diseases. Case law indicates that these standards were interpreted in existing WTO disputes factually as maximum standards – if undermined, they can be enforced by a trade barrier like an import ban, but so far no stricter standards ever were accepted.

*Private eco-label schemes***.** Under WTO law, labelling must fulfil the rules of the TBT. Therefore, mainly private label schemes on food are established without any governmental support or mandatory requirements – as they might conflict with WTO provisions. The most notable certification body for fish is the Marine Stewardship Council (MSC), which has certified a number of fisheries as meeting their standards for sustainability. Most Arctic fisheries are addressed, some examples include Alaska (wild) salmon, Gulf of Alaska pollock, New Zealand hook, Norway north east and Arctic saithe.[52] The EU has started developing an individual voluntary eco-labelling scheme for fish that is captured[53]. Based on a communication in 2005 the Commission is expected to draft a legal proposal on labelling requirements.[54] Its idea is to define minimum criteria for sustainable fisheries – including stock levels to avoid over fishing – against third countries, which follows the UN guidelines for eco-labelling.

Rules for subsidies

The *Agreement on subsidies and countervailing measures* (SCM) sets rules for prohibited and actionable subsidies in terms of allowing trade partners to impose counter-measures in the form of tariffs against these subsidies. Additionally, notification rules are set to inform members on new subsidies. The categorization of subsidies depends on their market-distortive potential: prohibited measures are encompassing all subsidies linked to an export target or to the required use of domestic inputs (local content requirement). For the actionable subsidy any counter -measures must be justified by a proven injury. The counter-measures should be restricted to a maximum of 5 years. Existing WTO disputes on fish often refer to the SCM and to the *Agreement on Dumping and Anti-Dumping measures* below (Annex 17).

Dumping and Anti-Dumping

According to the WTO dumping is defined as setting export prices lower than the respective domestic reference price. The reference price refers to domestic cost compensation. The Agreement specifies

[52] Asche and Smith, *Trade and Fisheries* [see note 1].
[53] Aquaculture can apply for organic certification and therefore will be excluded from this new label scheme.
[54] "Launching a debate on a Community approach towards eco-labelling schemes for fisheries products", Communication from the Commission to the Council, the European Parliamanet and the European Economic and Social Committee, Brussels, 29.06.2005, COM(2005) 275 final.

Article VI of GATT by allowing for actions in terms of tariffs against unfair competition if a domestic injury can be proved. Certain rules on defining the dumping margin and calculating the level of safeguard are required. So far, anti-dumping on fish has been a WTO concern primarily in relation to aquaculture. The rapid increase in aquaculture production for certain species had led to increased imports in some countries. Domestic producers of competing products have filed anti-dumping complaints against what they perceive as unfair competition. Among the most important examples for aquaculture are shrimp, salmon and catfish[55].

4.2.2.2 EU's trade agreements

Bilateral trade agreements can address both preferential tariff concessions for contracting partners and rules on handling non-tariff barriers in order to facilitate trade between the trade partners.

Preferential *tariff concessions* can be of high relevance for fish as the MFN tariffs for fish are very high compared to other products (Table 1). This leads to high benefits for the contracting countries compared to all other countries. However, as the general trend on reducing all MFN tariffs is continuing in WTO negotiations, such preferential arrangements will be of less benefit (preference erosion). Only very few of such agreements on tariffs between the EU and Arctic countries exist and, additionally, very often fish and agricultural commodities are explicitly excluded from trade liberalizations applicable to all other products.

Agreements on *non-tariff barriers* often are adopted as Veterinary Agreements and are seldom, too: Mutual recognition, e.g. on technical and hygiene standards requires the acceptance that the trade partner achieves the same objectives even with different domestic arrangements. Often longstanding reciprocal controls of the production processes cause longstanding negotiations or lead to suspensions of agreements.

[55] W.R. Keithly and P. Poudel, "The Southeast U.S.A. Shrimp Industry: Issues Related to Trade and Anti-dumping Duties". *Marine Resource Economics* 23(2008) 4: pp. 459–483; Ana Norman-Lopez and Frank Asche, "Competition Between Imported Tilapia and US Catfish in the US Market", *Marine Resource Economics* 23 (2008) 2.

(1) The European Economic Area EEA: Tariff concessions for Norway and Iceland[56]

Especially relevant for the Arctic countries is the European Economic Area (EEA) with Norway and Iceland as members. The EAA extends the Single Market of the EU to the EAA, which is important especially for non-tariff measures.

On *tariffs* the EAA establishes a free trade area but not a customs union. Therefore, EEA countries impose their own tariffs against third countries but have free access to EU markets and vice versa. Important exceptions are agriculture and fish, which are excluded from full duty free access applicable to other products. However, Protocol 9 to the EEA Agreement defines for fish 5 steps for cuts in tariffs, starting with a first cut to 86% of the initial tariff in 1993, followed by subsequent cuts. The resulting current tariff levels for fish range between 0% to 7.8% (Table 2).

No concession is applied to salmon, herring, mackerel, shrimps, prawns and Norway lobster. Additionally, duty free access is granted by TRQs for a limited quantity that is defined on an annual basis (for example, frozen mackerel, frozen herring, frozen fillets of herring and herring flaps and frozen peeled shrimps).

Non-tariff barriers on animal health and food safety are ruled under Annex I and II of the EEA Agreement, in principle requiring the Communities' acquis.

Table 2: EU's preferential tariffs on fish in the EEA

	EEA		
	Tariffs		**TRQs**
All	0%		-
Fish	**Min**	**Max**	**Duty free quota for approx. 100 tariff lines to be negotiated regularly**
	0%	**7.8%**	

Source: WTO Tariff Profile for the EU, 2009, available at: <http://stat.wto.org/TariffProfile/WSDBTariffPFView.aspx?Language=E&Country=E27>.

Tariffs of Arctic countries against the EU

The tariffs of the Arctic countries against trade partners and the EU differ very much from the EU's pattern as they are much lower on average and by that ensure much higher market access to all trade partners including the EU:[57]

[56] *Agreement on the European Economic Area*, at: <http://www.efta.int/~/media/Documents/legal-texts/eea/the-eea-agreement/Main%20Text%20of%20the%20Agreement/EEAagreement.ashx > and *Protocols and Annexes* at: <http://www.efta.int/eea/legal%20texts.aspx>.

- *Iceland* mainly applies duty free access, on average a tariff of 1.1% is applied to fish and nearly 90% of fish imports enter via duty free access.
- *Norway* broadly implements duty free access leading to an average applied tariff for fish of 2.1% – however, for some products very high tariff rates of more than 150% and up to 280% are applied (fish flavour and fish products for feed purposes). Of Norwegian imports, nearly 100% are imported duty free.
- The *USA* broadly applies duty free access and hereby reaches an average applied tariff on fish at only 1%, with some exceptions of tariffs up to 35% as maximum (e.g. for tuna). Altogether 81% of fish imports fall under duty free regimes.
- Comparable to the USA, *Canada* broadly grants free access, with an average applied tariff for fish of only 0.9%, and as well ensures for 81% of Canadian fish imports duty free access.
- *Russia* so far has not yet become a WTO member and thereby is not bound to the tariff agreements of the WTO. On average the tariffs for fish are at a 10% level.[58]

(2) Other bilateral Agreements mainly on non-tariff barriers

With other Arctic countries than Norway and Iceland no Agreement of the EU with tariff concessions for fish exists. The only tariff-related Trade Agreement with Russia does not offer lower tariffs for fish than the overall EU MFN-tariffs. The currently negotiated Free Trade Agreement with Canada is still under negotiation. Existing EU Agreements other than those under the EEA focus on non-tariff barriers.

EU and USA: Veterinary Agreement[59]

A Veterinary Agreement, which includes provisions related to fish, has been adopted in 1998. In its first version, for many products (including fish) no final mutual recognition of standards had been achieved. In contrast, very often still review and on-site verification is required before recognition could be further followed (Annex V).

---

[57] See WTO tariff profiles 2009 at:
<http://stat.wto.org/TariffProfile/WSDBTariffPFView.aspx?Language=E&Country=E27>.

[58] The most recent data available is of 2002. See Government of the Russian Federation, *Custom tariffs of the Russian Federation*, 2009, available at:
<http://www.rusimpex.ru/Content/Custom/Poshlin/readgroup.php3?section=1&group=3&position=0>.

[59] Council Decision of 16 March 1998 on the conclusion of the Agreement between the European Community and the United States of America on sanitary measures to protect public and animal health in trade in live animals and animal products, at: <http://eur-lex.europa.eu/pri/en/oj/dat/1998/l_118/l_11819980421en00030063.pdf>.

EU and Canada: Veterinary Agreement and negotiation of a Free Trade Agreement[60]

In 1976, Canada and the EU signed the first-ever Framework Agreement for Commercial and Economic Cooperation between the EU and another industrialised country. A number of bilateral agreements designed to facilitate closer trade encompass measures like mutual standard agreements but no tariff concessions were envisaged. A Veterinary Agreement of 1999 integrates fish by defining mutually agreed requirements for accepting national standards especially on health standards for fish for human consumption. Such measures encompass required national certificates or lists of accredited export plants in order to facilitate trade by checking these certificates instead of inspecting complex production processes.

Regarding tariff concessions, on 6th May 2009 negotiations for a Comprehensive Economic and Trade Agreement (CETA) were launched. Negotiations are scheduled to be finalized by 2012 perspectively.

EU and Russia: Partnership and Cooperation agreement and negotiations of a Free Trade Agreement[61]

The Partnership and Cooperation Agreement (PCA) of 1994 envisages a free trade area or even a customs union between the contracting parties. For many products already preferential and duty free access exists: The average tariff of the EU on all Russian imports is 5.8% (12.4% conversely); however, fish imports follow the MFN tariffs and therefore do not offer preferential advantages. Additionally, the rights to fish in the Community's or Member States' waters are explicitly restricted to the EU and Member States (Annex 3 of the PCA). In 2008, re-negotiations for an extended Agreement replacing the PCA were initiated, which was linked to the WTO accession. The accession now being protracted, the succeeding trade negotiations are suspended as well.

[60] Agreement between the European Community and the Government of Canada on sanitary measures to protect public and animal health in respect of trade in live animals and animal products, at: <http://eur-lex.europa.eu/pri/en/oj/dat/1999/l_071/l_07119990318en00030063.pdf>.

[61] Agreement on partnership and cooperation establishing a partnership between the European Communities and their Member States, of one part, and the Russian Federation, of the other part - Protocol 1 on the establishment of a coal and steel contact group - Protocol 2 on mutual administrative assistance for the correct application of customs legislation - Final Act, at: <http://trade.ec.europa.eu/doclib/docs/2003/november/tradoc_114138.pdf>.

EU-Faroe Islands: Veterinary Agreement[62]

This Agreement of 1999 mainly confirms that Community rules, i.e. the acquis, have to be applied. Therefore, no specific facilitation for fish imports of the Faroe Islands is granted.

As conclusion the EU has a large negotiation potential on market access as it is first the dominant import market for fish and secondly still applies high tariffs. Therefore the EU has large power to influence catches via trade measures in the context of cross-regimes.

4.2.3 Cross regimes: linking catches and trade

Regimes on catches can use trade instruments to support the enforcement of management measures or to penalize the infringement of such measures.

The set of possible trade measures cover public blacklists of vessels, the rejection of any logistical support of vessels or the prohibition of entry into ports or import bans for the originating vessel's country. Guidelines are defined at multilateral level, some RFMOs implement IUU measures and as well the EU developed own legislation and additionally has agreed some bilateral arrangements.

The compliance with WTO rules has not been clearified yet without any raised dispute so far.

4.2.3.1 Multilateral cross regimes

The **FAO's International Plan of Action on Illegal, Unreported and Unregulated Fisheries (IPOA-IUU)** covers recommendations for all three dimensions of IUU:

- *Illegal fisheries* refer either to the contradiction of national law/ fishing permission in national waters or to rules of a RFMO in the High Seas. Infringements compromise all legal standards like on quantity or on fishing techniques.
- *Unreported fishing* refers to fishing activities which have not been reported, or have been misreported either to national authorities or in case of the High Seas to the relevant RFMO.

---

[62] Council Decision of 15 November 1999 concerning the conclusion of a Protocol on veterinary matters supplementing the Agreement between the European Community, of the one part, and the Government of Denmark and the Home Government of the Faroe Islands, of the other part, at: <http://eur-lex.europa.eu/pri/en/oj/dat/1999/l_305/l_30519991130en00250025.pdf>.

- *Unregulated fishing* refers to not permitted activities in the fishing area of a RFMO (e.g. by vessels without nationality or by flags of a state not party to that organization) or more general to all activities on fish stocks that are not addressed by conservation and management measures or that are in contradiction to international rules on stocks' management.

As strategy it is proposed to impose trade-related measures against all actors - port, coastal and flag states and individual vessels: These measures encompass registration lists for vessels, bans of transhipments and entry to ports but as well import and export prohibitions (Art. 69). It is explicitly recommended to follow multilateral rules of the WTO (Art. 66) of fair and non-discriminatory measures. Especially the latter rule may cause problems as sanctions against individual states allways are discriminatory and would need additional justification under the relevant WTO provision. The EU and all Arctic countries but Russia signed the Action plan, Russia however is a cooperating country.

4.2.3.2 Cross measures of RFMOs

Within the statute of several RFMOs explicit IUU measures are mentioned, covering the whole range of measures starting with blacklists and ranging up to import restrictions. In spite of blacklists for vessels, no information was available whether any RFMO so far has actually imposed any hard trade measures: NEAFC publishes blacklists of vessels not fulfilling the IUU requirements – in 2009, 11 vessels were blacklisted. In 2009 NAFO blacklisted altogether 22 vessels.[63]

4.2.3.3 EU's cross measures

EU-wide measures

The EU approach againts IUU is divided into measures against third countries and thereby on imports and on domestic EU suppliers:

For *foreign suppliers* Regulation 1005/2008 requires a certificate by the flag state that must accompany the whole food chain. This certificate of an accredited body affirms that national legislation against IUU is in place in the third country. Additionally, minimum samples for inspections by the EU are required. In case of infringement import restrictions against the respective country are foreseen.

[63] See <http://www.neafc.org/blist> and <http://www.neafc.org/system/files/jan_2009_nafoiuulist.pdf>.

For *domestic EU actors* a control system for ensuring compliance with the rules of the Common Fisheries Policy is applicable according to Regulation 1224/2009. The major instrument is traceability but different to foreign suppliers no catch certificate and for inspection no minimum samples are required for domestic fishing.

Box 3: Potential conflicts of IUU and WTO rules

As IUU regimes explicitly refer to trade measures, potential conflicts can arise with the WTO. This risk may be specifically high if one actor like the EU implements own rules that could conflict with the following rules:[64]

- *Necessity* requires the proof that a measure is relevant to achieve a certain goal, i.e., under GATT XX (g) the conservation of exhaustible resources like fish. Hereby the trade measures should not impose an unjustified trade barrier to support the domestic economy.
- *Non-Extraterritoriality* according to case law prohibits the protection of resources beyond national jurisdiction, which in principle would be the case for fish stocks outside the EU. For RFMOs imposing trade measures only within their area of competence this might be interpreted as taking place within their territory. However, RFMOs as such are not WTO members, i.e., only their member states would be addressed by a potential case and by that the rule of non-extraterritoriality can be applied.
- *Non-discrimination aims* at equal treatment of different third countries. In order to check whether countries aim to minimize discrimination dispute panels often evaluate the adequate notification of a measure and the support of third countries in terms of capacity building. For the EU measures it would be relevant to proof that they were notified in time.
- *National treatment* requires that foreign suppliers should not be treated stricter compared to domestic suppliers. This rule may cause a problem for the EU rules as differences can be observed comparing foreign and domestic producers (certificate and sampling rules).

Agreed records with Norway, Iceland, Canada, USA on implementation of the IUU Regulation[65]

In September 2009, the EU agreed on mutual recognition of equivalent measures against IUU with most of the Arctic Countries except Russia. The agreements replace the requirement of catch certificates by the general equivalence of domestic and foreign measures. This indicates that all these countries have similar requirements.

[64] Heike Baumüller, *Combating Illegal Fishing in the EU: Interaction with WTO rules* (London: Chatham House, January 2010), Briefing Paper EERG BP 2010/02.
[65] See for Norway Press Release DG Fisheries of 30.9.2009, at: <http://ec.europa.eu/fisheries/press_corner/-press_releases/2009/com09_45_en.htm>.

4.2.4 Joint memberships of Arctic actors

Summing up the joint membership of EU/EU Member States and Arctic countries, the following broad picture can be drawn (Graph 4):

Regarding *catch regimes*, the EU and EU Member States are members of all relevant UN regimes. For RFMOs, the EU and/or EU Member States again are member of all Arctic-relevant spatial RFMOs (NAFO NEAFC based on ICED). For NEAFC as single EU Member State, Denmark is member on behalf of the Faroe Islands and Greenland. Here the EU is one of only 5 members altogether. Similarly, for the species-specific RFMOs, the EU is represented in all but NPFAC. This full membership will be of relevance if these RFMOs gain importance in the wake of climate change making area No. 18 more attractive for fisheries.

Without any new RFMOs or any extension of existing RFMOs' areas, ICCAT, WCPFC, and NASCO may become the relevant RFMOs at least for tuna and tuna-like and anadromous fish. The EU is as well member of all these RFMOs. With Iceland and Norway, additional bilateral fisheries Agreements of the EU exist.

On *cross regimes* the EU signed the global IPOA-IUU and not only sets up domestic legal acts but as well adopted bilateral arrangements with all Arctic countries but Russia.

With respect to *trade*, all analysed actors are WTO members but Russia, leading to a high relevance of preferential tariffs offered by the EU as MFN tariffs still are quite high. Norway and Iceland benefit from such concessions under the EEA regime. A free trade agreement with Canada is still under negotiations. Other existing bilateral agreements mostly refer to non-trade barriers like the ones with the USA, Canada and the Faroe Islands.

Graph 4: Joint Membership in relevant fisheries regimes

	EU	GER	FR	ES	PL	UK	NL	S	Fi	DK	IC	NO	CAN	USA	RUS
CATCH REGIMES															
UN															
UNCLOS															
Fish Stocks Agreem.															
Compliance Agreem.															
Responsible fisheries															
IPOA PSM															
CoP to the CBS Conv															
Spatially defined RFMOs and scientific Organization for advice															
ICES															
NAFO															
NEAFC															
Target species RFMOs															
ICCAT															
NASCO															
NPFAC															
WCPFC															
Bi- and multilateral Agreements															
EU															
Fisheries Agreements															
CROSS REGIMES															
UN															
UN IPOA IUU															
RFMOs															
NAFO															
NEAFC															
Bilateral															
Agreed records															
TRADE REGIMES															
Multilateral															
WTO															
Regional															
EEA															
Bilateral															
Trade Agreements															
Veterinary Agreements															

5. Exemplary conflicts between the EU and Arctic countries

Conflicts on catches are ruled bilaterally between the parties or by regional fisheries organizations within own dispute settlement procedures. Trade conflicts are ruled by the dispute settlement mechanism of the WTO as far as WTO members are concerned. All analyzed countries are WTO members with the exception of Russia. Any trade dispute with Russia as involved party therefore must not necessary follow general WTO rules, but so far no trade conflict with Russia is known.

5.1. Conflicts on catches

The dominating catch conflicts are those on access to fishing areas and the allocation of catch quota to single countries. Selected cases on Arctic fisheries indicate that mainly Arctic countries are involved in such conflicts. This is due to the fact that they are the coastal states of Arctic marine areas and by that affected by questions of defining EEZs and the sovereignty on fish stocks within their EEZ (Annex 16).

Exemplary case of blue whiting[66]: EU against Faeroe Islands, Iceland and Norway

Already in 1990 problems in allocating fishing opportunities for blue whiting appeared. Blue whiting is fished both within the EEZs of the Faroe Islands, Iceland and Norway but as well by offering access to other countries like the EU and for fishing in the high seas via ruling of the NEAFC. Already in the 90s constant quotas have been defined based on scientific advice of ICES. However, only in 2006 an agreement on the countries' allocations could be reached. The EU and as single Member State especially Poland supported the idea of an interim quota, but a final agreement was opposed by Denmark, Iceland and Russia calling for a complete closure of this fish stock to fisheries. In 2008, the usually defined and allocated quota had to be amended due to over fishing, meaning that overall catches had to be restricted. The agreed records of 2008 between EU, the Faroe Islands, Iceland and Norway amend the usually multi-annual management arrangement under the area of NEAFC. They restrict overall catches to 543,043 tons in waters under national jurisdiction and beyond for the 2009. The EU receives the bulk of the quota, with 165,628 tons. Additionally, further possible cuts were adopted as possible adjustment in case of unforeseen over fishing.

[66] See NEAFC, *Agreed Records on Blue Whiting in the North-East Atlantic*, at: <http://www.neafc.org/system/files/bluewhiting_2009.pdf>.

5.2. Conflicts on trade

Since 1995 altogether, 21 cases on fish (thereby excluding the recent three cases on the EU's ban on seal products) have been initiated within the WTO.[67] Only in four cases either Arctic countries or the EU are involved and only two of those took place among these groups: In these two cases Norway complained against an EU tariff against assumed dumping or unjustified subsidies in Norway (Annex 17). Both cases refer to aquaculture.

The case of anti-dumping in farmed salmon and rainbow trout: Norway against the EU

Farmed salmon imports in the EU were subject to several disputes mainly due to perceived losses for the fish industry in the UK and Ireland.[68] Already in 2004 the EU set quota on imports from Norway, the Faroe Islands and Chile, which were revoked in 2005 and replaced by anti-dumping tariffs only against Norway in 2006.

Norway challenged this measure as being inconsistent with several articles of the Anti-Dumping agreement and Article VI of GATT. It mainly argued that the EU's tariffs were not justified by a correct application of rules on the calculation of Norwegian's industries' costs and on the sampling of products used for the injury analysis. It further argued that the calculation of the margin of dumping was not appropriate; injury and causation were not proved correctly and, finally, that the level of safeguards imposed on potentially dumped imports was too high.

The WTO Panel's report states that the EU's tariffs were inconsistent with WTO rules on 22 points and was adopted in January 2008.

The case of safeguards on farmed salmon: Norway against the EU

On 1 March 2005 Norway requested consultations with the European Communities on the EU's safeguard measures against imports of farmed salmon. These safeguards consist of a complex set of tariffs and minimum entry prices within and beyond defined tariff rate quotas.

[67] All cases prior to 1995 refer to the system of GATT having a much weaker dispute settle mechanism. These cases often did not lead to any adopted judgement and therefore are excluded here.
[68] "Norway to Take EU to WTO Over Salmon Antidumping Measures", *Bridges Trade BioRes*, 6 (3 March 2006) 4, available at <http://ictsd.org/i/news/biores/62915/>.

Starting point of the complaint was that the justification for such safeguards within the SCM Agreement was not given – i.e., no serious injury was proved for the EU market. As well it was brought forward that the EU tariffs exceed the extent necessary to prevent or remedy serious injury caused by increased imports and to facilitate adjustment.

This dispute has paused in the phase of consultation without any panel ruling so far.

6. First conclusions from stocktaking

Weak position of the EU on future catches depending on the institutional scenario.

The underlying characteristic of the EU in the Arctic is the geographical position. According to the applied definition of Arctic Seas, the EU does not have direct coastal access as Greenland does not belong to the EU anymore since 1985.[69] This subsequently limits the EU's position on receiving fishing rights in the current situation: the EU receives rights either by grants from Arctic countries' to fish within their EEZ or by being allocated rights within an RFMO area as far as the High Sea is concerned. For straddling stocks even these rights in the High Seas depends on the first decision of coastal states on their fishing volumes what determines the residuum accessible to other countries. Looking at the actual figures the EU holds by far the smallest amounts of catches in Arctic waters of about 4% which additionally represents a very small relevance of Arctic catches on global catches of 2.6% compared to most other actors (for Norway 50%, for Iceland 80%, for Russia 22%, only for Canada and the USA lower with 2% and 0% respectively).[70] The current interests of most other actors in Arctic actors therefore must be characterised as higher.

Both, the geographical location of the EU and the current fishing activities may influence the EU's future position in case new areas would become accessible due to melting ice.

As future *institutional scenarios* the following ones are in principle possible depending on the newly accessible areas:

(1) *New access for waters under national jurisdiction of coastal states.* If ice-melt starts at the borders first coastal states gain newly accessible fishing areas and domestic rules of the coastal states are applicable. As such rules had not been necessary in the past due to ice-coverage domestic regulation

[69] The Faroe Islands, Finland and Sweden do not fall under the definition of Arctic Seas applied in this Article, as they are located southerly of the 66% latitude.

[70] Fishstat database. These small shares are due to the definition of the current Arctic fishing area that exclude the US and parts of the Canadian catches.

would need to be adjusted in order to fulfil requirements of international law.[71] In this case the EU may only benefit from being granted fishing rights.

(2) *New access to the High Seas.* If newly accessible areas would fall under the category of High Seas, then potentially three further scenarios may appear:

- *No change in RFMOs.* In principle, the only current RFMOs in charge of new High Seas in area No. 18 and north of the Polar circle are the ones on tuna, tuna-like and anadromous fish, which is not relevant in the Arctic to this point. If these stocks would become relevant, the EU already as member of these RFMOs would have to be involved in the negotiation of new fishing rights. It can be expected that all recent relevant fishing actors may have an incentive to agree upon a certain allocation among each other, which can be drawn from similar cases in the past: Norway, Russia and Iceland faced problems caused by the migration of Northeast Atlantic cod in the 90s. As cod migrated from coastal waters under national jurisdictions into areas of the High Seas, all countries caught cod and by that undermined a former common management strategy between Norway and Russia. The affected parties managed to find a trilateral common solution.[72] However, usually historical catches serve as basis for allocating new rights. The EU would then be allocated rights according to their current share in catches.
- *Extension of an existing RFMOs* like NEAFC as proposed by the Commission's communication. NEAFC is covering southwards more than only Arctic waters but east- and westwards much less - namely the complete statistical area No. 27 is addressed which reaches down to Spain. No case is known from the past of changing a RFMO's area and therefore it is not evident how such a procedure may look like. The NEAFC Convention does not explicitly mention the option of amending its spatial scope. But such adjustments are not excluded either.[73] In principle different groups of countries may initiate such an extension: either only the current small group of five members would agree on such an extension or other actors like cooperating non-contracting parties to NEAFC such as Canada, Belize, Cook Islands, Japan and New Zealand, or others like the USA or even long-distance fishing actors like China, too. In the first case an agreement would probably be easier and the EU might potentially have a strong position depending on how future catching rights would be defined: Usually the allocation of fishing rights follows historical catches. As the conventionary area of NEAFC is much larger than only north of 66° currently the EU holds the bulk of fishing catches in the overall NEAFC area reaching southwards to Spain. This supports a dominant EU position. But the other

[71] Molenaar and Corell, *Background Paper Arctic Fisheries* [see note 11].
[72] Vilhjálmsson and Hoel, "Fisheries and Aquaculture" [see note 6], p. 707.
[73] Koivurova, Molenaar and Vanderzwaag, "Canada, the EU, and Arctic Ocean Governance" [see note 15], p. 278.

Arctic NEAFC members Norway, Iceland and Russia may vote for accounting the specific Arctic catches only in the Arctic areas of NEAFC. Then the EU was in a weaker position. From a point of view to protect future fishing rights the EU therefore is right by defending the historical approach of current NEAFC catches. If in a second case additionally other actors would call for memberships, too, then the group of potential new members make agreements even more difficult. Independent from the question of extending the regulatory area of NEAFC and even more challenging was the specific allocation of fishing rights for straddling stocks, moving across EEZs and the newly accessible High Seas: These rights are primarily fulfilled by coastal states based on the scientific advice of ICES relevant for the entire stocks and not only the ones within EEZs. Hereby factually coastal states as well affect overall high seas stocks and thereby the volume of fishing rights to be allocated. Additionally they rule cooperation among coastal states. Canada and the USA as coastal states of potential new accessible stocks may hereby benefit from this the first-mover advantage of coastal states.[74] Fishing rights for all other countries without direct coastal access, including the EU, anyhow would be depending on the coastal states' fishing volumes.

And anyhow a more general problem of simply extending the NEAFC area would be a resulting very large area which cannot consider specific relevant eco-system specific characteristics in the Arctic.

- *For a completely new RFMO* it is even more difficult to forecast the process of building such a new body – will that be primarily initiated by the current coastal and thereby Arctic states or will it be based on historical catches in the broader Arctic region leading to potential new Members as long-distance fishing actors? In this scenario the EU will have again a weaker position on receiving catch rights.

Stronger position of the EU on trade than on catches

Different from catches, the EU can be characterised as strong or even the dominant trade actor. For some Arctic actors the EU serves as by far the major export market (Iceland, Norway and, with less relevance, the USA). Therefore, the EU position on trade regimes with Arctic actors can be of larger success compared to pure catch regimes. Due to the large relevance of the EU market the EU can especially take over a leading role on promoting sustainable fisheries by IUU trade measures. Respective trade-related measures may have a strong effect on fulfilling IUU rules as otherwise countries lose their access to the relevant EU market.

[74] Ibid, p. 282.

As regards pure trade measures within trade agreements, the EU's position must be looked upon in a differentiated manner: On the one hand, the EU can offer large benefits by liberalising market access, because so far both tariffs and, even more, non-tariff barriers are set at high levels. Hereby relevant trading partners among Arctic actors may be motivated to offer as well concessions. But on the other hand, for those Arctic actors facing already preferential tariffs like Norway and Iceland less additional benefit are expected from increased market access.

Relevant challenges beyond the scope of this analysis

The first conclusions of this analysis specifically refer only to fishing-related activities and regimes. Additionally, the conclusions are based on stocktaking, which means that they take into account the existing institutional setting.

However, other activities than fisheries and their respective regimes or other designs of existing regimes can be considered. This would allow analysing the overall objective of effective regimes for sustainable marine areas rather than limiting the analysis to fisheries.

The Commission's communication and Council conclusions mention as other sectors in addition to fisheries the exploitation of hydrocarbons, shipping and tourism.

A cross-sectoral and ecosystem-based approach is already generally followed by the EU:[75] Such an integrated approach is part of the "Blue book on the EU Integrated Maritime Policy and a Linked Action Plan", adopted in 2007[76] and evaluated again in 2009.[77] Major dimensions addressed here are the maritime spatial planning and integrated coastal zone management, the integration of maritime surveillance and the building of a marine knowledge base.

Specifically for the eco-dimension the "Marine Strategy Framework Directive" [78] is important which defines marine regions on the basis of geographical and environmental criteria. Each Member State – in cooperation with other Member States and non-EU countries within a marine region – are required to develop joint strategies for their common marine waters. For fisheries it is stated that the ecosystem

[75] See for a comprehensive inventory on related regimes for other sectors and need for integrated cross-sectoral approaches Koivurova and Molenaar [note 16].

[76] An Integrated Maritime Policy for the European Union, COM(2007) 575 final of 10.10.2007 and SEC(2007) 1278 of 10.10.2007.

[77] Progress report on the EU's integrated maritime policy, Brussels, 15.10.2009, COM(2009) 540 final.

[78] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy, 17/06/2008.

approach will be applied as an overarching principle leading to a specific protection of vulnerable marine ecosystems in the High Seas.[79]

And additionally, strengthened cooperation with other relevant organizations is relevant for cross-sectoral approaches, like with the International Maritime Organization (IMO) especially on shipping and transport.

[79] Regulation (EC) N° 734/2008, Official Journal of the European Union, L 201/8, 30.7.2008.

Annex

Annex 1: Definition of areas

Ecosystem based areas with current fisheries' relevance (ACIA)	Geographical specification	Statistical area (FAO)	Applied Arctic definition (northern of 66°)
Northeast Atlantic	Barents Sea	Area 27 I, IIb	Completely covered
	Norwegian Sea	Area 27 IIa	Completely covered
Central North Atlantic	Waters around Iceland	Area 27 Va	Completely covered
	East of Greenland	Area 27 XIVa, XIVb	Completely covered
Northeast Canada	Labrador and Newfoundland	Area 21 2, 3	Excluded
	Eastern coast Iceland, western coast Greenland	0A, 0B, 1A-F	Completely covered
Bering Sea	Bering Sea	Area 67 (no subdivisions) Area 61 (no subdivisions)	Excluded
-	Northern marine areas, including Hudson Bay	Area 18	Completely covered

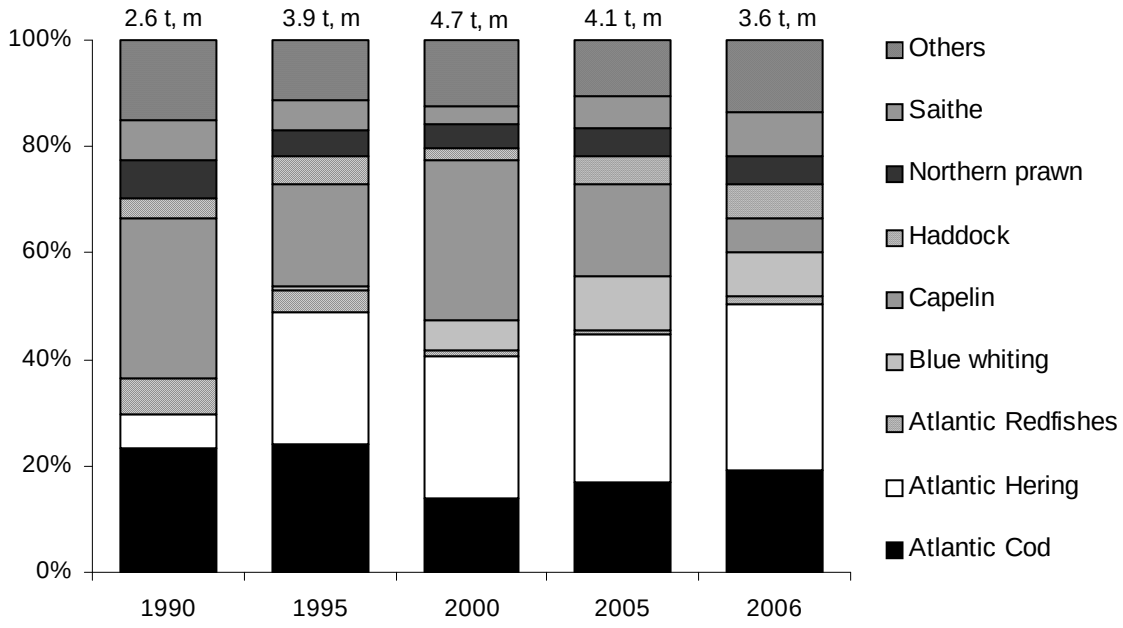
Source: Hjálmar Vilhjálmsson and Alf Håkon Hoel, "Fisheries and Aquaculture", in *ACIA Scientific Report* (Cambridge et al.: Cambridge University Press, 2005); Erik J. Molenaar and Robert Corell, *Background Paper Arctic Fisheries*, Arctic TRANSFORM, 2009, at: <http://ec.europa.eu/maritimeaffairs/Arctic_fisheries_en.html>, FAO Geonetwork, *FAO Statistical Areas for Fishery Purposes*, available at: <http://www.fao.org/geonetwork/srv/en/main.home> (last checked: 28 April 2010).

Annex 2: Fish Glossary

English	German	Norwegian	Latin
Cod	Dorsch Kabeljau	Torks Skrei	Gadus morhua or Gadus callarias
Saithe	Seelachs	Sei	Pollachius virens
Haddock	Schellfisch	Hyse/ Kolje	Melanogrammus aeglefinus or Gadus aeglefinus
Capelin	Lodde	Lodde	Mallotus villosus
Blue whiting	Blauer Wittling	Olule/ Blagunnar	Micromesistius poutassou or Gadus poutassou
Atlantic Redfish	Rotbarsch	Uer/ Roedfisk	Sebastes viviparus
Pelagic Redfish	Rotbarsch	Uer/ Roedfisk	Sebastes mentella
Atlantic Herring	Hering	Sild	Clupea harengus harengus
Atlantic Salmon	Lachs	Laks	Salmo salar
Pacific Halibut	Heilbutt	Kveite	Hippoglossus stenolepis
Sand Shrimp (North America/ Atlantic prawn)	Garnele/ Krabbe	Reke	Crangon septemspinosus

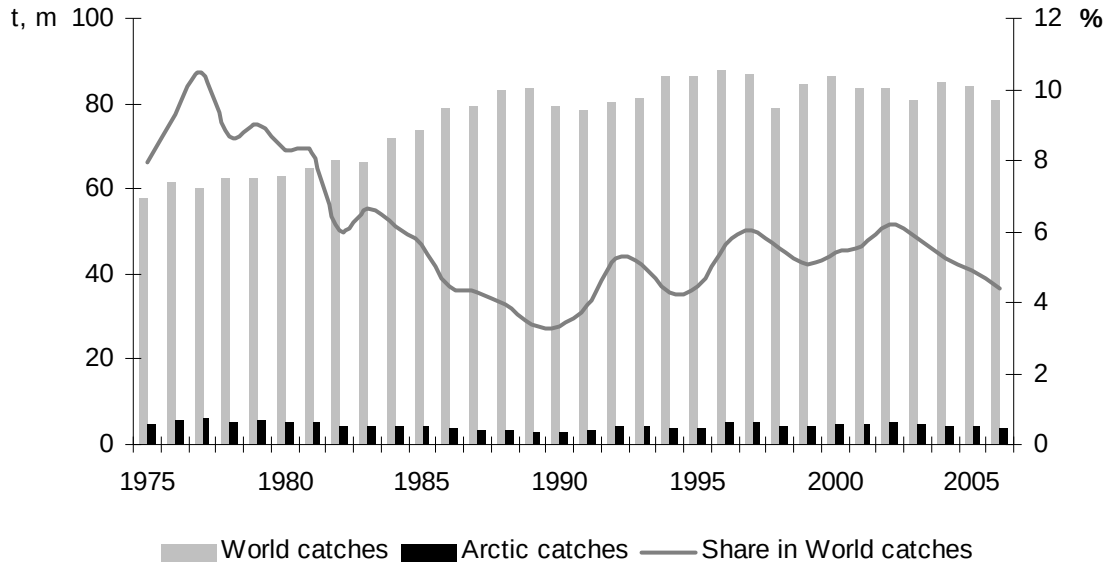
Source: OECD, Multilingual Dictionary of Fish and Fish Products, at: <http://lysander.sourceoecd.org/vl=8688177/cl=24/nw=1/rpsv/fishdictionary2008/index-ger.htm>.

Annex 3: Share in species' catches (> 100.000 t/year in avarage)



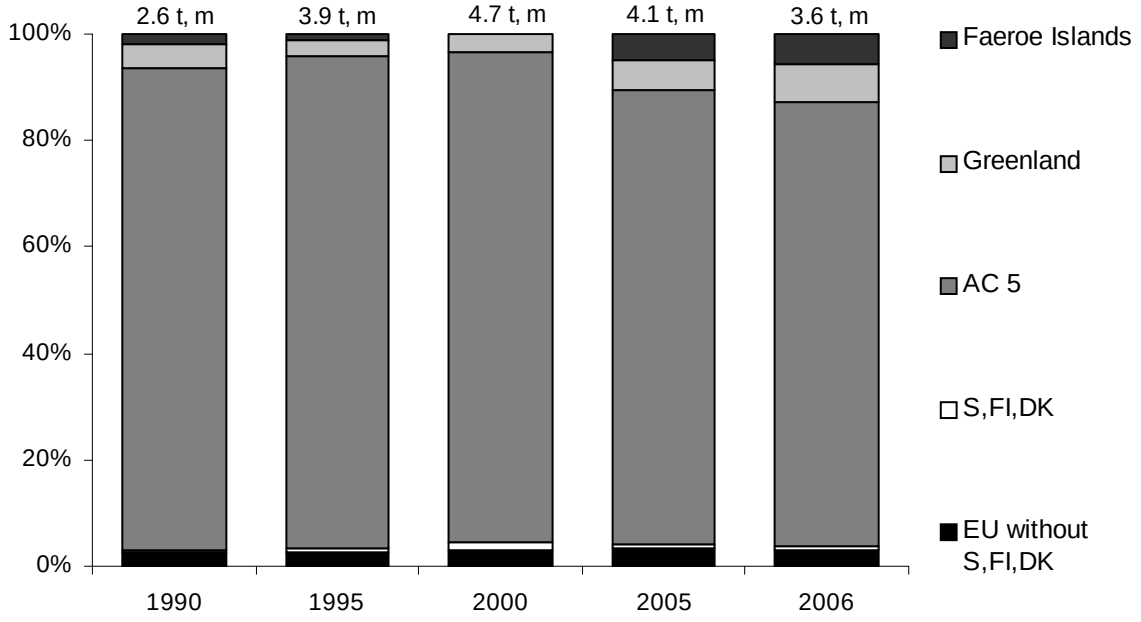
Source: Calculation based on FAO, FishStat. Arctic defined as parts of FAO Fishing areas 18, 21 and 27 (above 66° latitude).

Annex 4: Relevance of Arctic fisheries compared to global fisheries



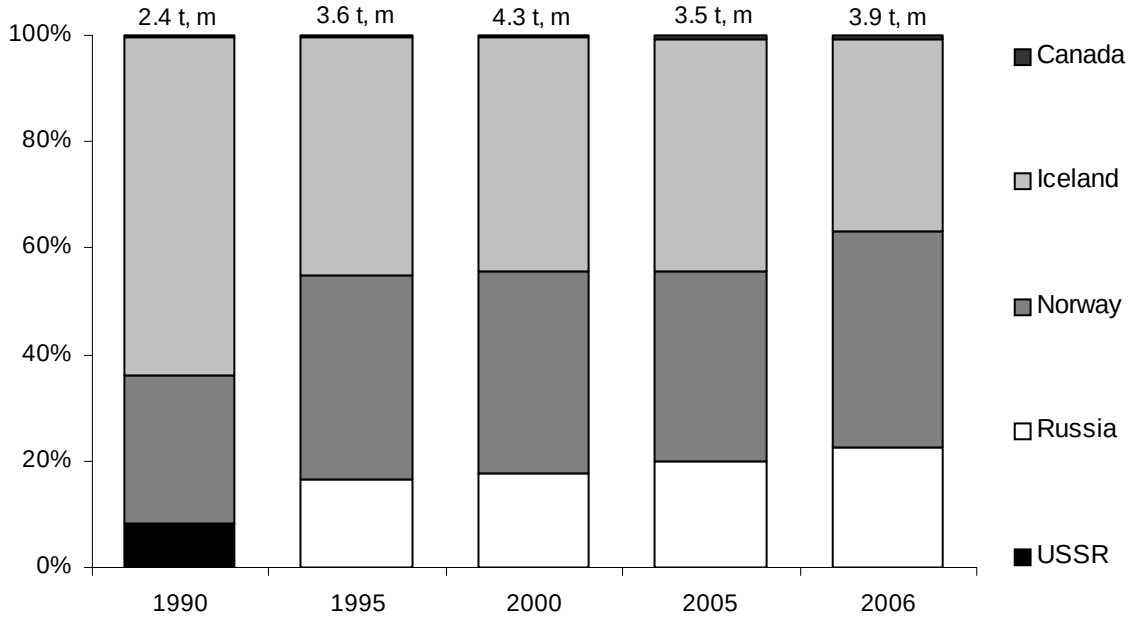
Source: Calculation based on FAO, FishStat, checked 16 May 2010. Arctic defined as parts of FAO Fishing areas 18, 21 and 27 (above 66° latitude).

Annex 5: Share in Arctic catches across Arctic and non-Arctic countries



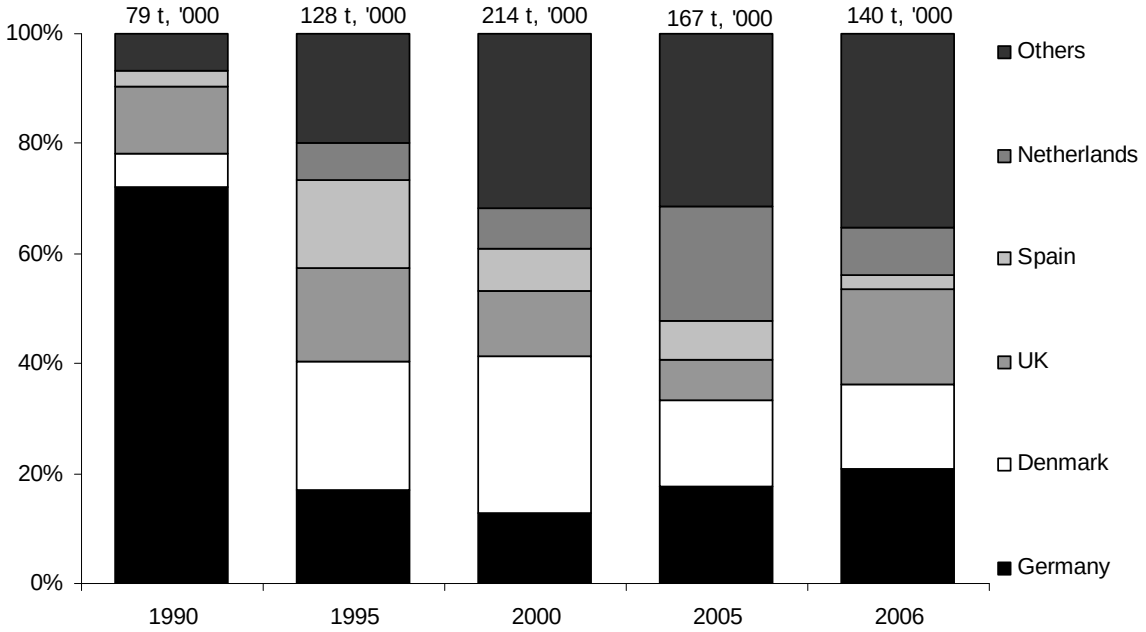
Source: Calculation based on FAO, FishStat, checked 15 May 2010. Arctic defined as parts of FAO Fishing areas 18, 21 and 27 (above 66° latitude).

Annex 6: Share in Arctic catches across Arctic countries



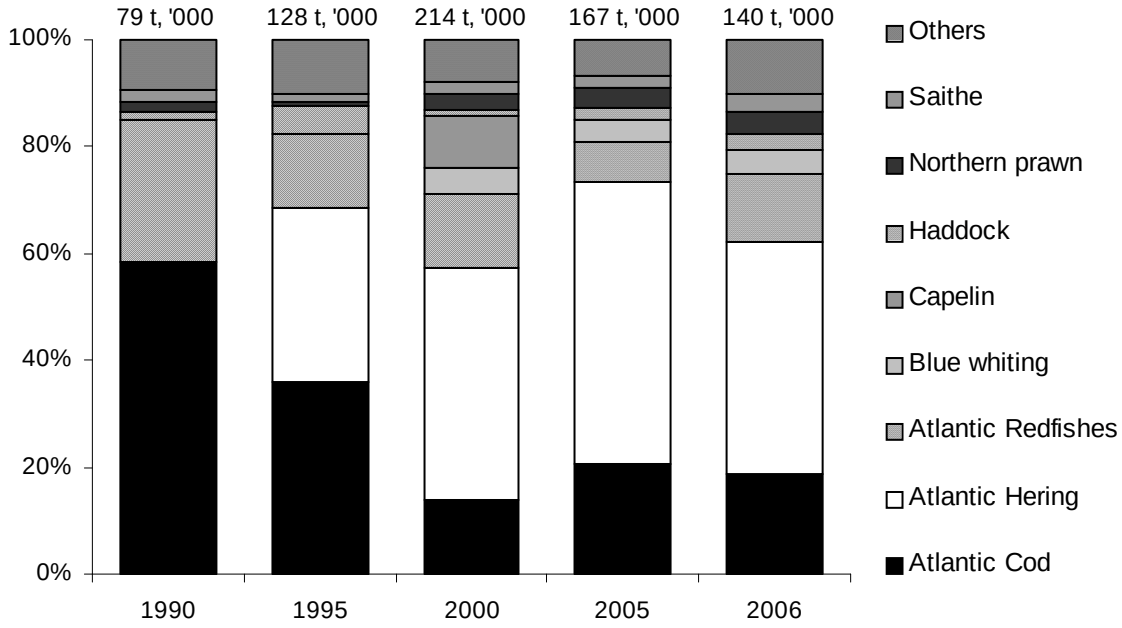
Source: Calculation based on FAO, FishStat, checked 15 May 2010. Arctic defined as parts of FAO Fishing areas 18, 21 and 27 (above 66° latitude).

Annex 7: Allocation of Arctic catches across EU members (> 10.000 tons/year in average)



Source: Calculation based on FAO, FishStat, checked 16 May 2010. Arctic defined as parts of FAO Fishing areas 18, 21 and 27 (above 66° latitude).

Annex 8: EU's key fish species



Source: Calculation based on FAO, FishStat, checked 16 May 2010. Arctic defined as parts of FAO Fishing areas 18, 21 and 27 (above 66° latitude).

Annex 9: Economic relevance of the fish sector (2009)

	% GDP*	% Export revenues
EU 27 total	0.1	0.5
France	0.07	0.3
Germany	0.01	0.2
Spain	0.2	1.2
Netherlands	0.03	0.6
Poland	0.01	0.8
United Kingdom	-	0.5
AC total		
Finland	0.06	0.1
Sweden	0.03	1.5
Denmark	0.1	3.8
Norway	0.5	5.7
Iceland (2005)	11% (4.5, acc. to OECD)	33
Greenland (2000)	20%	90
USA	-	0.3
Canada	0.1	0.8
Russia	0.3	0.6

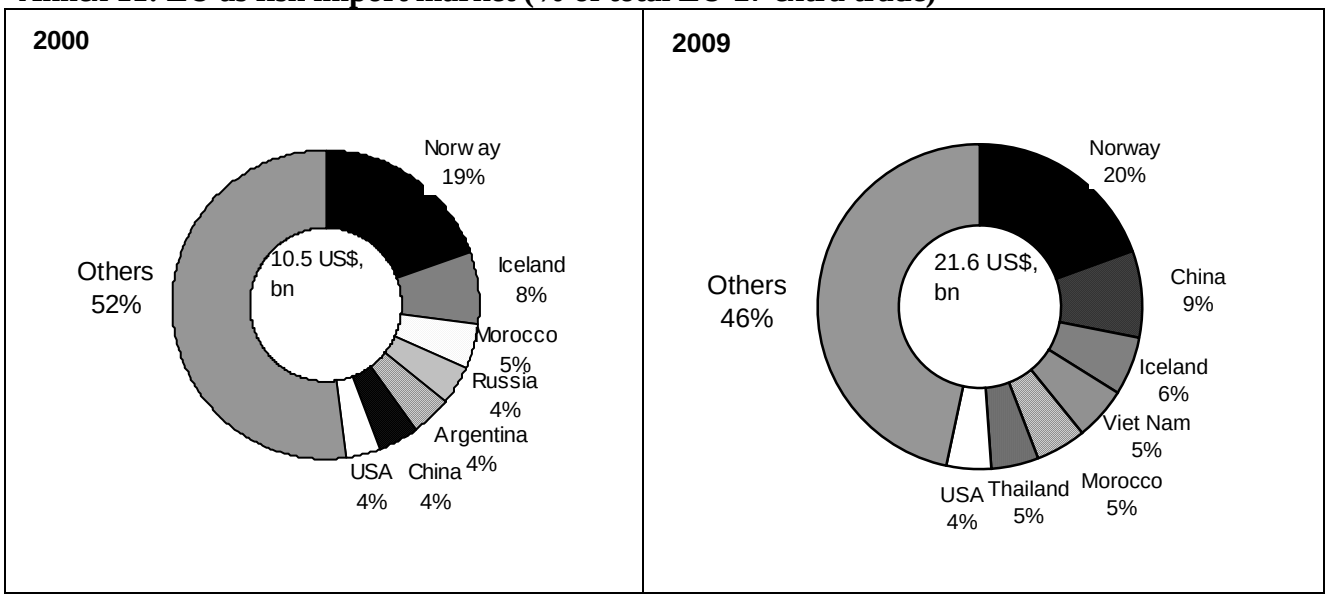
Source: GDP OECDStat online database, Export Revenues IMF, World Economic Outlook Database and Direction of Trade Statistics. For Norway: Ana Olivert-Amado (2008): Fisheries in Norway, p. 2; For Iceland: Ana Olivert-Amado (2008): Fisheries in Iceland, p. 35ff; Greenland: Vilhjalmsson, Hoel (2005), p. 724.

Annex 10: Employment's relevance of the fish sector

	Total employment (*000)	Total fisheries sector	Fisheries sector as % of total employment	Fishing	Aquaculture	Processing
EU-27 total	**204,825**	**435,790**	**0,21%**	**221,488**	**65,364**	**150,079**
France	24,584	64,712	0,26%	21,436	21,600	21,676
Germany	35,927	16,409	0,05%	1,972	3,033	11,404
Spain	16,659	87,310	0,50%	53,849	11,928	27,000
Netherlands	8,121	9,049	0,11%	2,547	120	6,382
Poland	13,617	19,923	0,15%	4,500	2,000	13,423
United Kingdom	28,696	33,534	0,12%	11,774	3,580	18,180
AC						
Russia	68,169	370,000	0,54%	124,000	:	:
Canada	15,947	:	:	41,043	7,200	:
USA	141,730	:	:	:	:	65,690
Norway	2,274	28,636	1,26%	14,785	4,203	9,648
Iceland	161	11,006	6,84%	4,450	156	6,400
Denmark	2,707	14,060	0,52%	4,258	854	8,948
Finland	2,365	2,740	0,12%	900	501	1,339
Sweden	4,314	3,955	0,09%	1,912	200	1,843

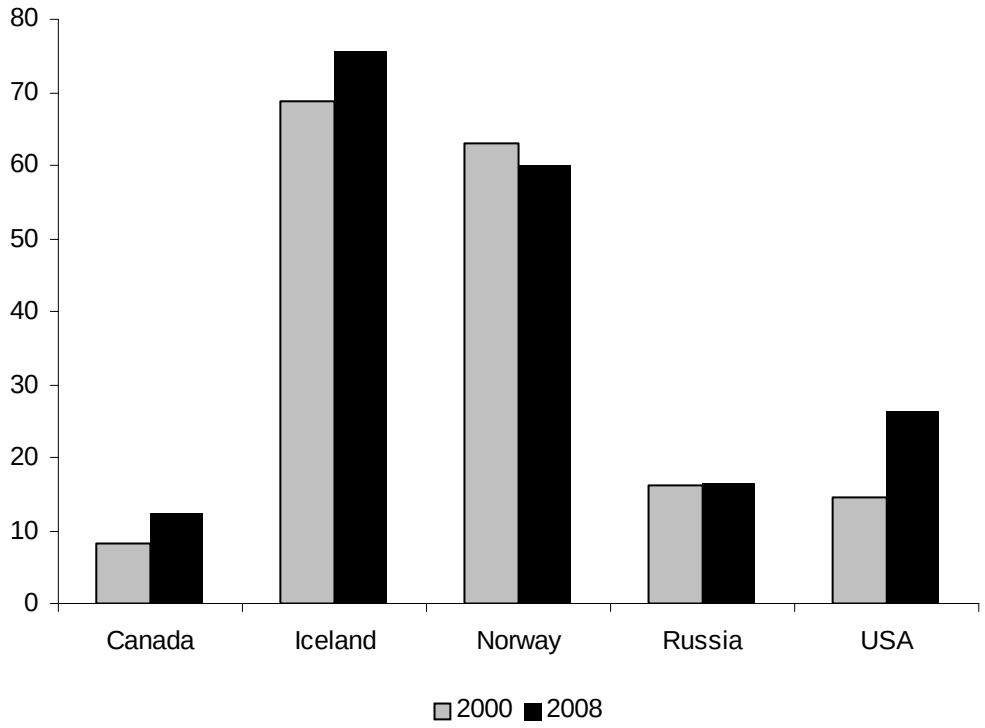
Source: Based on the European Commission, Employment in the Fisheries Sector, 2006. OECD, Review of Fisheries in OECD Countries, 2008 (USA, NO, CA, RU). EUROSTAT online database (NO, BU, LU, RO). FAO, Fishery and Aquaculture Country Profiles (BU, RO, DE). OECDStat online database (USA, RU).

Annex 11: EU as fish import market (% of total EU-27 extra trade)



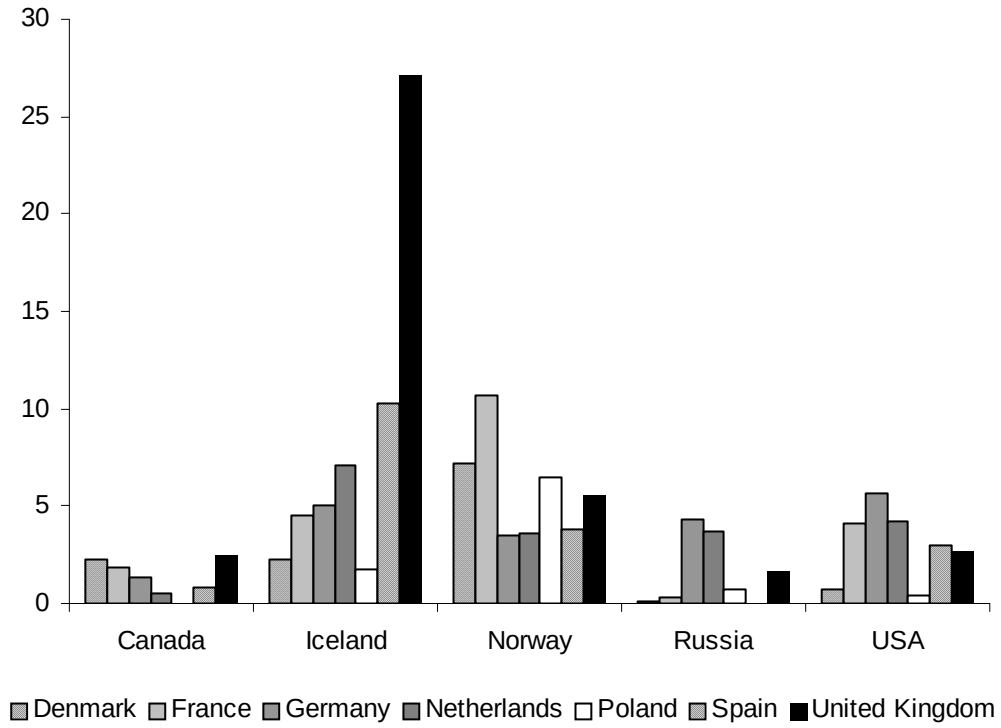
Source: Calculation based on Eurostat Comex 2008, Sitcom, DS-018995-EU27 Trade.

Annex 12a: EU as fish import market for Arctic countries (% of exporting country to the EU-27)



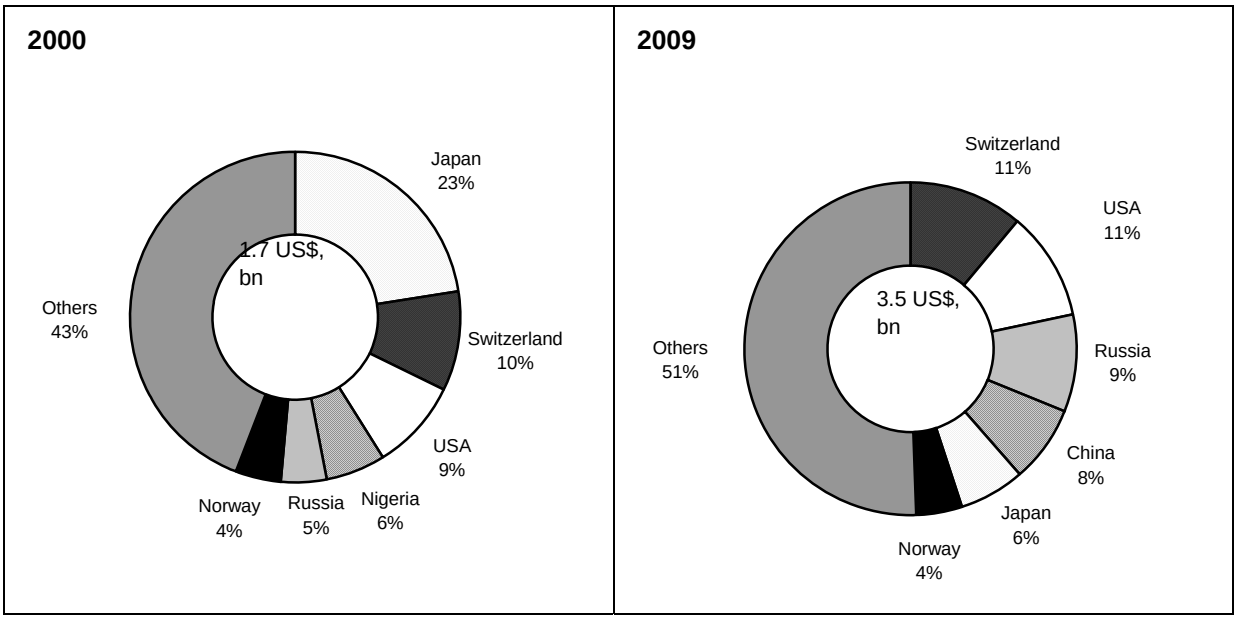
Source: Calculation based on UN, Comtrade Database, checked 30 April 2010.

Annex 12b: EU as fish import market for Arctic countries (% of exporting country to single MS, 2008)



Source: Calculation based on UN, Comtrade Database, checked 30 April 2010.

Annex 13: EU as fish exporter (% of total EU-27 extra trade)



Source: Calculation based on UN, Comtrade Database, checked 30 April 2010.

Annex 14: Membership in existing fishing regimes with Arctic relevance

Agreement/ Institution	Founding date	Parties	Cooperation States	Comments
UN level				
UN Convention on the Law of the Sea (UNCLOS)	1982	160 Member States EU; EU-MS:All 27 Member States Russia Canada Iceland Norway		
UN Fish Stock Agreement	1995	77 Member States EU EU-MS: All 27 Russia Canada Iceland Norway USA		
FAO Compliance Agreement	1993	39 Member States EU EU-MS: Sweden Canada Norway USA		
FAOCode of Conduct for responsible fisheries	1995	126 signatories EU; EU-MS: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Spain, Sweden, UK Canada Iceland Norway USA	Russia	
UN International Plan of Action on Illegal, unreported and unregulated fisheries (IPOA-IUU)	2001	126 member states Same member states than Code of Conduct for responsible fisheries		
FAO Port State Measures Agreement (PSM)	2009	13 signatories, not entered into force yet: EU		

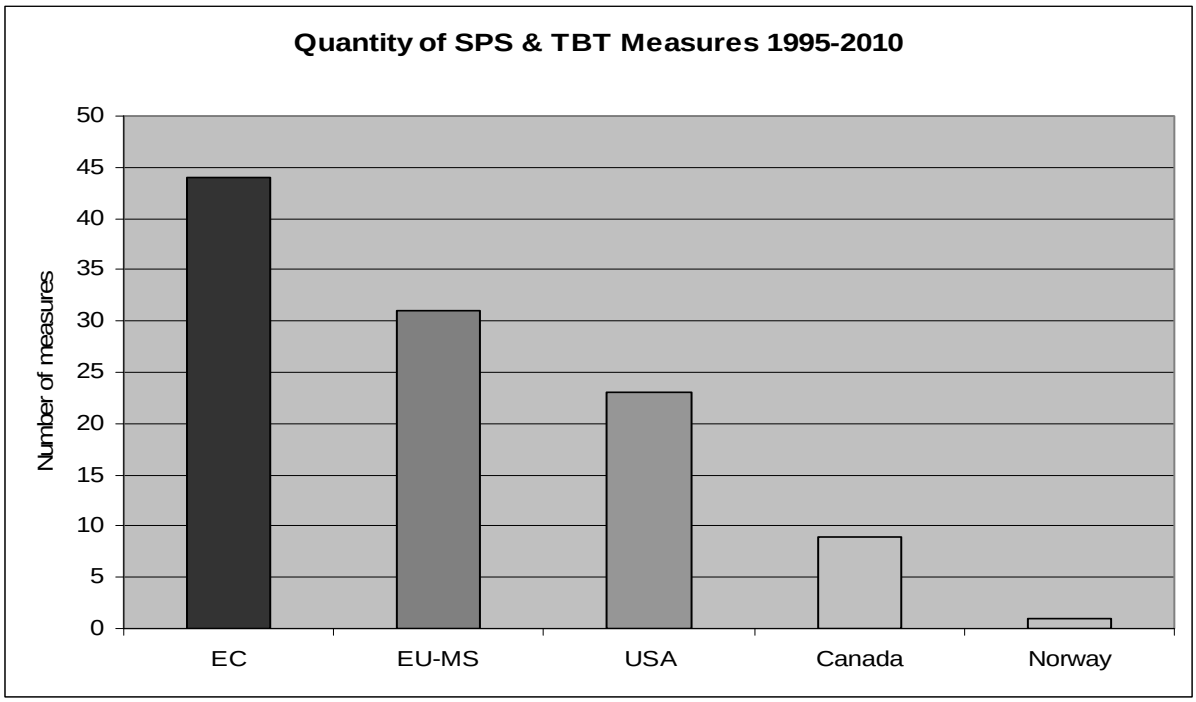
		Iceland Norway USA Angola, Brazil, Chile, Indonesia, New Zealand, Peru, Samoa, Sierra Leone, Uruguay		
The annual Conference of Parties (CoP) to the CBS Convention	1994	6 member states •EU-MS: Poland •Russia, USA •China, Japan, Korea		
Spatially defined RFMOs and basis advisory Organization				
The International Council for the Exploration of the Sea (ICES)	1902	20 member states •EU MS: Belgium, Denmark (including Greenland and Faroe Islands), Estonia, Finland, France, Germany, Ireland, Latvia, Lithuania, the Netherlands, Poland, Portugal, Spain, Sweden, the United Kingdom, •Iceland, Canada, USA, Norway, Russia	Australia, Chile, Greece, Peru, and South Africa	
Northwest Atlantic Fisheries Organization (NAFO)	1978	12 members •EU •Denmark (in respect of Faroe Islands), France (in respect of Saint Pierre et Miquelon), •Canada Iceland, Norway, Russia, USA •Cuba, Japan, Republic of Korea, Ukraine		
The Northeast Atlantic Fisheries Commission (NEAFC)	1982	5 members •EU •EU-MS: Denmark (including Greenland and Faroe Islands), •Iceland, Norway, Russia	Belize, Canada, Japan, New Zealand	
Target specific RFMOs				
International Commission on the Conservation of Atlantic Tunas (ICCAT)	1969	48 member states •EU •EU-MS: France (St. Pierre et Miquelon) ; UK (o. territories)	Chinese Taipei, Guyana, Netherlands Antilles	

		• USA, Canada, Russia, Iceland, Norway • Japan, South Africa, Ghana, Brazil, Maroc, Rep. of Korea, Cote d´Ivoire, Angola, Gabon, Cap-Vert, Uruguay, Sao Tomé, Venezuela, Guinea Ecuatorial, Guinée Rep., Lybia, China, Croatia, Tunisie, Panama, Trinidad & Tobago, Namibia, Barbados, Honduras, Algérie, Mexico, Vanuatu, Turkey, Philippines, Nicaragua,Guatemala, Senegal, Belize, Syria, St. Vincent, Nigeria, Egypt, Albania, Sierra Leone, Mauritania		
North Atlantic Salmon Conservation Organization (NASCO)	1983	6 member states • EC • Denmark on behalf of the Faroe Islands and Greenland, • Canada, Norway, Russian Federation, USA		Island withdrew from NASCO in 2009 due to fiancial considerations
North Pacific Anadromous Fish Commission (NPAFC)	1993	5 member states • Canada, U.S., Russia • Korea, Japan		
The Western an Central Pacific Ocean Fisheries Commission (WCPFC)	2004	26 member states • EU • France • Canada, USA • Australia, China, Cook Islands, Micronesia, Fiji, Japan, Kiribati, Korea, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Chinese Taipei, Tonga, Tuvalu, Vanuatu	Belize, Indonesia, Senegal, Mexico, El Salvador, Ecuador, Vietnam	
Bi- and multilateral Agreements				

EU and….				
Fisheries Agreements	Sev. years	4 member states Iceland, Norway, Greenland, Faroe Islands		
IUU agreed records	2009	3 member states Greenland, Faroe Islands, Norway		
Others				
Norway-Russian Fisheries Commission	1976	2 member states Norway, Russia		
Trilateral Loophole Agreement	1999	3 member states Norway, Iceland, Russia		
Yukon River Panels	2001	2 member states Canada USA		
International Pacific Halibut Convention (IPHC Convention)	1923	2 member states Canada USA		
Intergovernmental Consultative Committee (ICC)	1988	2 member states Russia USA		

Source: Own compilation based on Timo Koivurova and Erik Molenaar, *International Governance and Regulation of the Amrine Arctic – Overview and Gap Analysis*. A report prepared for the WWF International Arctic Programme, 2009.

Annex 15: Current non-tariff barriers related to fish based on TBT and SPS notifications (after 1995)



Source: WTO, <http://tbtims.wto.org/>.

Annex 16: Selected cases of conflict on fisheries management in the Arctic

Dispute Subject	Complainant – Respondent	Description
NAFO area		
Shrimp quota (2010 –)	Canada – Denmark	Canada, along with other NAFO members, criticizes Denmark for overfishing international waters off Newfoundland and violation of NAFO shrimp quotas by the Greenland and the Faroe Islands fleet.
Greenland Halibut quota in Northwest Atlantic (2004 – 2007)	EU, Japan, Canada, Russia	In 2004, the Scientific Council of the NAFO about halved TACs for Greenland Halibut due to a new stock assessment method. Solution was reached with the Greenland Halibut Rebuilding Program in 2007.
Cod quota (1990s)	Canada – EU	Canada accused the EU, particularly Spain and Portugal, of undermining a moratorium on cod fisheries in the Canadian EEZ off Newfoundland by fishing immediately outside the 200-mile line. Also the EU did not abide by NAFO-set quotas in the regulatory area.
NEAFC area		
Allocation of quotas for Norwegian Spring Spawning Herring (2003 – 2007)	All members	Between 2003 and 2007, the NEAFC failed to agree upon management measures for Norwegian sea spawning herring, which is regulated primarily in the coastal states' EEZ.
Blue Whiting (early 1990s – 2006)	All members	Failure of NEAFC to agree upon institution and allocation of TACs for blue whiting stocks in the North East Atlantic. blue whiting is regulated both in the coastal states' EEZ and the NEAFC regulatory area.
Pelagic redfish (ongoing)	All members	Dispute among NEAFC members about treatment of pelagic redfish stocks: finally division into two separate stocks and a two-TAC system. Pelagic redfish is regulated primarily in the NEAFC area.
On boundaries		
Beaufort sea boundary dispute (2007 –)	USA – Canada	The Beaufort Sea is a potential oil and gas deposit. The U.S., which have not signed to the LOS convention, claim the territory of their adjacent continental shelf.
Bering sea marine border (1990 –)	Russia – USA	Post-Soviet Russia refuses ratification of the 1990 Baker-Shevardnadze Agreement on the Russia-U.S. Bering Sea Marina Border. Besides high oil and gas reserves, both parties are claiming access to Alaska's pollock stocks.
Loophole dispute, Barents Sea (1991–1999)	Norway/Russia – Greenland/Iceland/Faroe Islands	Since 1991 Greenland, Iceland and the Faroe Islands challenged the authority of the prevalent Norwegian-Russian agreements for fisheries regulation. This was greatly induced by a rising abundance of cod in the area due to a change in environmental conditions. The issue was resolved in 1999.

Source: OECD (2009), Strengthening Regional Fisheries Management Organizations; Vilhjálmsson HA, Hoel H (2005) Fisheries and aquaculture. In: ACIA - Arctic Climate Impact Assessment. Cambridge. University Press, Cambridge, pp. 691–780, Van Pay, Brian (2010): National Maritime Claims in the Arctic, Presentation at the 33rd COLP Conference: Changes in the Arctic Environment and the Law of the Sea, May 21, 2009.

Annex 17: Existing trade conflicts on fisheries under WTO

Dispute Subject	Complainant – Respondent	Description	Case number
Anti-Dumping Measure on Farmed Salmon from Norway (2006 – 2008)	Norway – EC	Norway complained that a EC anti-dumping duty on Norwegian farmed salmon were inconsistent with WTO rules. Settlement was reached in 2008.	DS337
Definitive Safeguard Measure on Salmon (2005 –)	Norway – EC	The EC applies an additional tariff on Norwegian farmed salmon beyond a specific quota. Additionally, minimum prices and a security provided by importers are required by EU regulation.	DS328
Aid for commercial vessels (2004 –)	Korea – EC	Korea accused EC's and Member States set of measures (loans and guarantees) supporting building vessels	DS307
Measures affecting trade in commercial vessels (2003 –)	Korea – EC	Korea accused EC's and Member States set of measures (investment and research aids) supporting the vessels' industry	DS 301
Sum of all initiated disputes on fisheries	21		
... in which EU or Arctic countries are involved	4		

Source: WTO database on disputes, <http://www.wto.org/english/tratop_E/dispu_e/dispu_status_e.htm>.