

## CHAPTER 1: EXPLAINING DISTRIBUTIONAL OUTCOMES

Distributional conflicts – where a better bargain for one party leads to another party or parties getting less<sup>1</sup> – are at the heart of international cooperation. Solutions to these types of conflicts at the international level usually require domestic adjustment in order for a country to fulfill its obligations agreed upon in the agreement. These adjustments can be reduction in a certain activity, or an increase or a change in the way of doing things. Which sector of the state is asked to adjust their behavior depends on the issue being negotiated, with the key difference being whether private or public actors are the ones who have to bear the cost of the international agreement.

Commercial fish stocks that straddle political boundaries in the ocean present an important distributional challenge for international cooperation. While stocks found wholly within the boundaries of a state's 200-mile Exclusive Economic Zone (EEZ) are managed domestically, straddling fish stocks require cooperation among the states that harvest the stock to prevent their over-utilization. For example, the highly migratory Norwegian spring spawning herring stock is widely distributed in the area shown on the map, where it moves between the EEZs of five states in addition to being found in the "Loop Sea".

[Map about here]

The stock hatches in waters of Northern Norway. Its search for food drives it further north into Russian waters, where it stays for a couple of years before beginning a mad dash back through the Norwegian EEZ, into international waters labeled the "Loop Sea". Depending on where the stock is feeding, the stock can also be found partially in the Fisheries Protection Zone around Jan Mayen as well as the EEZs of Iceland, Faroe Islands and the European Union. Without any international management of the catch, this migration results in the right to fish

from the stock moving from being exclusive to Norway then to Russia, back to Norway, to being a common pool resource in international waters. In addition, when parts of the stock are also found within the EEZs of Iceland, the Faeroe Islands and the European Union, these countries gain exclusive access inside their respective EEZs to the stock as well.

In the absence of cooperative management among all the parties that claim rights to migratory stocks, they are likely to become depleted. But as is the case with the sharing of all valuable resources, the question of how to allocate fish stocks that travel between international and domestic waters is a contentious issue among states that share these stocks.<sup>2</sup> The decision of how to allocate the available resources among the participants presents an opportunity at looking at how states reach purely distributive outcomes, in this case a proportional share of an existing fish stock. This book focuses on the question of how nations reach distributive outcomes and in the process discusses the role of international regimes as well as the role of domestic politics when explaining the final outcome as well as changes in the distribution over time.<sup>3</sup>

The question of how to allocate straddling fish stocks among states who participate in the fishery is especially prominent in the North Atlantic, where states lie close together, possess large and sophisticated fishing fleets and are faced with resource depletion in domestic waters. Declining catches at home have led to an increased fishing effort outside the 200-mile Exclusive Economic Zone, with conflict ensuing over how best to prevent shared stocks from becoming depleted. Conflict has eventually given way to cooperation around shared fisheries in order to collectively manage these stocks. In the North Atlantic, Iceland, Norway and other states signed seven agreements between 1980 and 1999, covering four different stocks.

The Icelandic-Norwegian capelin stock has been collectively managed since 1980. In the 1990s, the countries reached agreements to manage Atlantic-Scandinavian herring (also known

as Norwegian spring-spawning herring), oceanic redfish and the Barents Sea cod stock. These agreements are purely distributive in nature, i.e. they allocate a preset Total Allowable Catch (TAC) among states party to the negotiation. However, the allocation of these four stocks amongst the negotiating partners – i.e. who gets what – varies across stocks and over time, as Table 1.1 shows.<sup>4</sup>

[Table 1.1 about here]

Two questions initially arise in looking at the outcome of negotiations between Norway and Iceland from 1980 to 1999. First, why does the allocation differ depending on which stock is being negotiated? For example, what accounts for Norway getting 62% of the herring stock in 1996, while getting only got 4% of the oceanic redfish stock that same year? And why does Iceland get 1.8% of the cod stock in 1999, but a whopping 81% of the capelin stock in 1998? Second, why does the allocation within the same stock change over time? This is the case for both capelin and herring. Iceland's share of the capelin stock increased in 1989 and again in 1998 while the Norwegian share shrank. Likewise the allocation of the herring stock changed in 1997, one year after the first agreement.

The answer to these questions is found at two levels, the international and the domestic. First, the international institutional environment – or regime – embodied in the 1982 Law of the Sea Agreement and the 1995 Straddling Fish Stocks Agreement<sup>5</sup> both emphasize the rights of coastal states and duties of high seas fisheries states and by extension determines who has the right to the largest share of the stock. A coastal state, defined as a state that has a share of the stock within its own EEZ, will get a larger share than a high-seas-fishing state, defined as a state that has no traces of the particular stock within its waters, but participates in the fishery nonetheless. However, the Law of the Sea regime does not specify how straddling stocks should

be allocated among participating states beyond giving us a way to say who should get the largest share. Hence the states that are party to the Law of the Sea regime have great leeway in how they apply the law to solve distributive conflicts.

Since the Law of the Sea regime cannot explain the distributive outcome of the negotiations, it is important to look at analyzing how the nations involved choose a baseline for the allocation of the common resource. Choosing the baseline is one of the most important tasks of the delegations during the negotiations. Before the negotiations start each state determines through a domestic process which baseline will result in the largest share for them. There are basically two different solution concepts: historical rights and zonal attachments, which will be discussed in more detail in Chapter 2. Historical rights allocate a resource on the basis of prior fishing experience while zonal attachment allocates the resource based on where the fish stock is found. The solution concepts provide a starting point for negotiations and the initial positions taken by each delegation. These initial positions are then modified as the negotiations proceed until one solution concept emerges as the dominating baseline through the give and take of the negotiations. Table 1.2 shows the baselines chosen for the seven agreements analyzed here.

[Table 1.2 about here]

It is clear from Table 1.2 that in most cases Iceland and Norway prefer different initial baselines, but as the third column shows the baseline chosen is usually Iceland's preference rather than Norway's. The question then arises as to why Iceland, which is the smaller and less powerful actor which has no military, is less populated and slightly less wealthy per capita than Norway, always manages to negotiate a baseline that gives Iceland a larger share of the final resource than if Norway's baseline had been chosen? The Law of the Sea regime cannot explain which baseline is chosen which leads to the second question addressed by this research: What

factors influence the selection of the baseline for allocation, and by extension why is the chosen baseline usually closer to Iceland's preference than Norway's preference?

The answer to this question lies at the domestic level, specifically in how domestic factors constrain the negotiators and how these constraints influence the final allocation. A domestic constraint on a negotiator influences her ability to make and accept offers. A state with significant constraints on its negotiators will have a reduced ability to make and accept offers, hence narrowing that state's bargaining space. On the other hand a state with little or no constraints on its negotiators will have a wider leeway in making and accepting offers, thus a wide bargaining space. This idea of how constraints influence the distributive outcome will be discussed in more detail in the "Theoretical Framework" section of this chapter.

The key constraints for both Iceland and Norway are the domestic interest groups who are active participants in the international negotiating process, both before the negotiations start and as members of the delegation. However, the ability of these groups to constrain the negotiators differs and changes over time. The power of the Icelandic interest groups has remained strong throughout the twenty years examined here, which has given them an ability to constrain negotiators during the negotiations. Norway's key interest group *Norges Fiskarlag* (the Norwegian Fishermen's Association), on the other hand has lost a significant amount of power vis-à-vis the government and hence its ability to constrain negotiators has been diminished. As a result, Iceland usually has an upper hand in these distributive negotiations.

### **1. The Importance of Distributional Conflicts**

As mentioned above distributional conflicts lie at the heart of international cooperation. In addition to the allocation of shared fish stocks where private actors are usually required to diminish their fishing effort as a result of international agreements around management

measures, there are other examples of distributive conflicts in the international arena that share the characteristics of conflicts allocating straddling fish stocks. For example, the implementation of successful international negotiations to lower tariff barriers and negotiations to reduce emissions of greenhouse gases both require private actors at the domestic level to adjust their behavior in order for the state to comply with the international agreement reached. Hence these private actors who have to bear the cost of policy change have an incentive to try to influence the negotiations by constraining the alternatives available for negotiators. To what extent interest groups can constrain negotiators depends on permeability of domestic institutions and actors to interest group demands as well as the power configuration of the groups domestically.

Tariffs on manufactured goods have declined significantly since the end of World War II, mostly through multilateral negotiations. These reductions, which were negotiated in the General Agreement on Tariff and Trade and then continued in the World Trade Organization, have resulted in costs and benefits for different domestic groups. Import competing industries have faced stiffer competition at home as they are no longer protected by tariffs from competition against cheaper manufactured goods from abroad. At the same time, exporting industries have gained as they have more markets for their goods. Hence these actors have incentives to try to influence to what extent tariffs are cut. The negotiations over reduction in tariff levels are essentially distributive conflicts as countries have to agree on who should lower their trade barriers and by how much. This conflict is currently being fought within the Doha Round of WTO negotiations that partially focus on the reduction on barriers to trade in agricultural goods. The sticking point in these negotiations has been to what extent developed countries need to cut subsidies for agriculture in exchange for lower tariffs on agricultural goods in developing countries. Lower subsidies in developed countries would mean higher agricultural prices at home

and abroad, resulting in these goods being less competitive at the international level. Lower tariffs in developing countries would mean increasing competition for domestic farmers, some of which would go out of business. Hence the cost of adjustment is borne by domestic farmers, who are well organized and thus a formidable lobby group, especially in the European Union and in the United States.

Similarly, the Kyoto Protocol has stalled as there is considerable difference between nations as to who should be responsible for reducing emissions of greenhouse gases. Developed countries, especially the United States, have been pressured to proportionally reduce carbon emissions to a greater extent than the developing world, which has argued it should not have to reduce emissions as that would slow development. But at the same time some of the emerging developing countries are increasingly responsible increasing greenhouse gas emissions. Reducing greenhouse gas emissions is costly and the cost is born differently by different economic actors. Hence these domestic actors, who are faced with the greatest cost to change their practices to reduce pollution, will seek to pressure their governments to not accept a large cut in greenhouse gases in international negotiations.

## **2. Theoretical Framework**

In explaining how nations reach an agreement to distribute a shared resource, this research argues that the final allocation can be explained by looking first at the international level and the role regimes play and then secondly at the domestic level to explain the choices negotiators can make based on the constraints they have from domestic factors. Hence the explanation proceeds on two fronts. At the international level, the Law of the Sea regime explains who will get the largest share in the allocation. At the domestic level, constraints on negotiators – in this case powerful interest groups – put limits on negotiators and thus influence

the selection of the final baseline of the allocation. In doing so, this research adds to the almost purely theoretical literature on two-level bargaining models by providing a rich empirical study of seven negotiations between Iceland and Norway.<sup>6</sup> I will first discuss the international level, before proceeding to elaborate on the theoretical framework provided by the two-level-games literature.

### *The International Level*

The explanation over the variation in distributive outcomes evident in Table 1.1 lies partially at the international level. Scholars studying international cooperation have argued that the existence of international regimes – defined as “sets of implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations”<sup>7</sup> – fosters cooperation.<sup>8</sup> The Law of the Sea regime governs agreements around straddling fish stocks. The regime is based on two key international agreements: the 1982 United Nations Law of the Sea Convention and the 1995 Straddling Fish Stocks Agreement.<sup>9</sup> Iceland and Norway were important actors during the Law of the Sea and the Straddling Stock Agreement negotiations. Both have signed and ratified the two conventions and are thus bound by them.

The Law of the Sea regime gives states guidelines as to what they should consider when reaching an agreement over a straddling stock. For example, the 1982 Convention and the subsequent Straddling Stocks Agreement lay out broad ideas that states can use to solve conflicts over common resources. However, while the Law of the Sea mandates cooperation, it does not dictate *which* solution concept should be adopted and therefore the Law of the Sea regime cannot explain the variance in the choice of a baseline and the change in distribution of two of the stocks over time. Participating states have absolute power to decide how they apply the guidelines



found in the Law of the Sea during negotiations. The only outcome the Law of the Sea can explain is determining which nation gets the largest share of the straddling stocks given the designation of states as either coastal or high-seas fishing states. States therefore use the law in an instrumental fashion, focusing on the solution concepts that will give each state the largest share of the resource being divided amongst them.

This argument is supported by interviews with bureaucrats and interest group leaders in Norway and Iceland. The interviews indicate that the role of international law emerges as providing solution concepts for cooperation and thus narrows the number of possible outcomes.<sup>10</sup> That is, the states act instrumentally to maximize their share of the Total Allowable Catch. The interviews reveal three primary solution concepts that have reference in the 1982 United Nations Law of the Sea and the recent Straddling Stocks Agreement signed in 1995.

First, Article 63 of the Law of the Sea calls for cooperation among coastal states and high-seas fishing states in managing straddling fish stocks. This duty to cooperate is reinforced in Article 5(a) of the Straddling Stocks Agreement. Taken together, these two agreements provide for the rights and responsibilities of coastal states and high-seas fishing states in managing straddling stocks. If a fish stock is found partially within the waters of a country, that country is a coastal state. If a country has no traces of a stock in its waters, but its ships partake in the fishery in international waters, it is labeled a high-seas fishing state. The overarching principle of these two agreements is that coastal states are responsible for the maintenance of stocks, while high-seas fishing states have an obligation not to deplete a particular stock. Interviews reveal that in praxis this principle means that in most agreements, coastal states have the right to a larger share of the stock than a high-seas fishing state. But neither agreement dictates *how* the states should reach a distributive solution. Instead, the agreements provide a

framework for the negotiations by giving states solution concepts, such as consideration of fishing history and science, that can serve as baselines for the negotiations.

In addition, Article 5 of the Straddling Stock agreements argues that management measures should be based on the best scientific evidence available. In the North Atlantic, the concept of zonal attachment has been used on occasion by states to allocate common resources. The calculation of zonal attachment is a scientific construct which estimates how much of the stock is found within a particular economic zone at any given time. Ideally, using zonal attachment to divide a stock reduces the politics involved in the allocation *if* everyone party to the negotiations agrees with the calculations. That is, if governments accepted scientific calculations where stocks reside as basis for distribution, there would really be no need for negotiations. However, zonal attachment often complements the coastal state provision, i.e. who should get the largest share, but is rarely strictly applied, because governments like to have the flexibility to negotiate a different allocation.

Finally, provision 62(3) of the 1982 Law of the Sea suggests that states have to respect historical rights to fisheries. This provision is the most politically malleable provision in the negotiations being studied here, and as such enjoys vast popularity. The ability to rely on the provision that allows for more negotiations, allows negotiators to bargain harder and try to get more of the resource than strict zonal attachment would dictate. Historical rights is an elastic concept as there are often heated discussions about when history should “begin” and to what extent such right should matter in the final allocation. Hence, historical rights have emerged as a key concept in almost all of the negotiations in this study. The role of the Law of the Sea and its specific provisions will be discussed in more detail in Chapter 2.

### ***The Constraints of Domestic Politics***

The explanation for the initial choice of a baseline for allocation – either historical rights or zonal attachment – for each country prior to the negotiations lies at the domestic level, specifically in the constraints interest groups put on negotiators’ ability to make and accept offers. Negotiated solutions to distributional conflicts which result in private actors – such as firms or labor unions – bearing the cost of these international agreements give such organizations an incentive to influence the negotiating process. These organizations’ success in influencing the distributive outcome depends on ability of the affected parties to influence the process. Hence, in explaining the final allocation of a stock, it is imperative to look at the relevant actors, be they political parties, labor unions, individual companies and so forth, and the domestic institutional structure that determines how these actors can influence what the delegation can offer and accept in international negotiations. For example, in negotiations seeking to reduce trade barriers, required Senate ratification of international agreements in the United States can be used to get a better deal in the negotiations. The chief negotiator can use the required ratification as a threat in the negotiations to argue that certain bargains would never be approved by the Senate and hence get a better bargain for the United States.

The idea of constraints on negotiators is not new and increasingly scholars have been showing that domestic institutions can constrain negotiators and under certain conditions provide a bargaining advantage for the country that is more constrained by domestic factors than its opponent. In 1960, Schelling observed that “the power to constrain an adversary may depend on the power to bind oneself.”<sup>11</sup> He gives an example that if the United States was negotiating a trade agreement where its negotiators had no constraints and were free to take any negotiating position to get an agreement, the negotiators might have a difficult time in making any position stick. If on the other hand, the United States executive was negotiating under legislative

authority, this constraint would be visible to the adversaries, the executive branch would have a firm position that was accepted by the adversaries.<sup>12</sup> In this way, the legislative constraint would lend credibility to the US position.

Putnam reintroduced this notion by arguing that international negotiations are essentially a two-level game.<sup>13</sup> The two-level game refers to the fact that as the chief negotiator is negotiating an international agreement, she is simultaneously negotiating with domestic actors to make sure any agreement will be accepted at home. According to Putnam, every country has a domestic win-set, which consists of all bargaining outcomes which would “win” approval of the majority of the constituency at home.

Win-sets are important for two reasons. First, countries will only reach an agreement if their win-sets overlap. Hence large, overlapping win-sets facilitate cooperation. Second, the size of the win-set will influence the distributive outcome of the negotiations in such a way that a country with a large win-set (i.e. with fewer constraints in what it can demand and offer) can be pushed around by a country with a narrower and more constrained win-set.<sup>14</sup>

This idea of win-sets guides this research. The explanation for the choice of a baseline for allocation – either historical rights or zonal attachment – which significantly influences the distributive outcomes lies at the domestic level. In discussing possible reasons for a large or small win-set, Putnam mentions the distribution of power and preferences domestically, domestic political institutions and the strategies of the chief negotiator.<sup>15</sup> Broadly speaking, constraints can be any institutional feature or domestic agent that can tie the hands of negotiators, and give him a bargaining advantage. In the context of this work, the key argument is that corporatism – or systematic domestic policy coordination involving key interest groups – as the chief institutional arrangement in Iceland and Norway allows interest groups direct access to

international negotiations, both through pre-negotiation meetings as well as including interest group representatives as members of the delegation. Specifically domestic interest groups put constraints on negotiators' ability to make and accept offers and hence influence the size of the win-set. But the ability to influence the negotiations varies over time and influences the choice of the baseline for resource allocation.

Scholars such as Iida, Mo and Tarar<sup>16</sup> have used game theory to build on Putnam's work to further refine how domestic constraints matter in international negotiations. While this work has provided important theoretical insights, it lacks empirical support. Iida shows that when one state has some domestic constraints and is negotiating with a state that is assumed to have no constraints, the constrained state has a bargaining advantage that results in a more favorable distributive outcome.<sup>17</sup> Tarar builds on Schelling's and Iida's work and shows how domestic constraints influence the distributive outcome of international agreements when both states are assumed to have different levels of constraints.<sup>18</sup>

Tarar's model is directly applicable to explaining the distributive outcomes reached between Iceland and Norway. His predictions for the impact of bargaining constraints on the negotiating outcome, relative to the case where neither side is constrained, show that a highly constrained state usually has a bargaining advantage over a state that is less constrained. This results in a more favorable outcome for the state with the greater constraints, i.e. it gets a bigger share of the pie. Tarar does not specify what the constraints on negotiators are but notes his model can be applied to any situation where a domestic group can block an agreement, such as the legislature through formal ratification, the military, powerful domestic interest groups or an important business.<sup>19</sup> Essentially we can think of the domestic constraints on negotiators as a variety of veto players, defined as individual or collective actors whose agreement is required for

a change of the status quo.<sup>20</sup> If a veto player refuses to accept an agreement, the status quo is not going to change. In the case of straddling stocks, no agreement means there will not be collective management of these stocks.

The strength of domestic level explanations is that they incorporate the private sector, domestic political processes, and institutions at work in policy formation. They add an entirely new set of dimensions to our understanding of the forces at work when states cooperate as well as the terms of their cooperative agreement. So what are the possible constraints on negotiators in international negotiations?

Recent years have seen the proliferation of theories of what domestic factors influence the likelihood of cooperation.<sup>21</sup> But a generalizable theory has not emerged as to who and what helps or hinders states in the bargaining process. Scholars have pointed to an electoral connection,<sup>22</sup> ratification procedures<sup>23</sup> and the role of domestic constraints, specifically veto players<sup>24</sup> as influencing the outcome.

In the case of Iceland and Norway, electoral considerations have not influenced the distributive outcome of the negotiations. Elections in Iceland seem to have made an agreement in the cod conflict possible in 1999. Just prior to the election there was a push to end the conflict so as to not have to deal with a different government afterward. However the elections did not influence the actual distributive outcome, only the timing of the agreement.

Formal ratification by the legislature cannot explain the variance in the distributive outcomes of the negotiations between Iceland and Norway either. Formal ratification procedures are thought to constrain the bargaining space, as the negotiator has to make sure the agreements she reaches will be ratified by the legislatures.<sup>25</sup> Hence, ratification procedures narrow the bargaining space the negotiator has to reach an agreement. As a result, if two states are

negotiating and only one of them has formal domestic ratification procedures, the state that must have the agreement ratified domestically by the legislature will have a leg up in the negotiations.

In the case of Iceland and Norway there is no evidence that legislative ratification influences the distributive outcomes of agreements. In Iceland, international agreements are presented to the parliament as resolutions for the legislature to vote up and down. Given that Iceland is usually governed by a majority coalition, it is inconceivable for the members of the legislative majority to vote against the government on international agreements. In Norway, most international agreements do not have to go through the legislature. Of the seven agreements explored here, only two were voted on by the legislature: the 1980 capelin agreement and the 1999 cod agreement. There is no evidence that ratification helped the Norwegians at all during the negotiations, for example, the 1999 cod agreement can be said to be the worst agreement the Norwegians reached with Iceland.

If neither electoral considerations nor ratification issues constrain negotiators, what constraints do they face? The empirical study shows that in Iceland and Norway the most important constraints are the interest groups representing the fisheries.<sup>26</sup> Their relationship with the government across stocks and over time play an integral role in explaining the choice of a baseline in the negotiations and their high level of involvement in the negotiating process makes the interest groups the key domestic veto player.

### ***Role of Interest Groups***

Economically, interest representation in Iceland and Norway is decidedly corporatist.<sup>27</sup> The corporatist nature of these countries means that the state essentially functions as a mediator between opposing interests within the state. The classic example is the role of the state in wage negotiations between employer organizations and labor unions. The rich literature on

corporatism has focused almost exclusively negotiated settlements between labor, business and the government, but this way of policy making is visible throughout other sectors of the economy, including the fishing sector. Owners of fishing boats and ships, fishermen, producers and exporters are all highly organized and represented by powerful interest groups. In both Iceland and Norway, domestic interest groups negotiate policy outcomes with the government with regard to domestic fisheries management. These similarities between Iceland and Norway make the ideal to study the process of negotiating agreements over shared resources.

In Iceland and Norway, negotiators consider the will of the fishing interests when negotiating an international allocation agreement. In both countries interest groups are consulted before each negotiating round and they have a representative on the actual delegation. Hence interest groups are integral in forming the negotiating strategy and are able to veto and amend proposals as they are presented during each negotiating round. By involving interest groups in the negotiating committee, both Iceland and Norway restrict their alternatives. But the constraints the two states face from their domestic constituents differ among stocks and change over time.

The ability of the fishing industry in Iceland and Norway to influence policy outcomes is quite different and has changed over time. In Iceland, fishing provides about 75% of export earnings, giving interest groups representing the industry a disproportionate voice in the policy process. This is evident in the government's willingness to cater to the fishing industry during the period studies here, especially by adopting the system of Individually Transferable Quotas to manage the domestic fisheries and the willingness of the government to devalue the Icelandic currency to help fisheries exporters. The evidence shows that at minimum, Icelandic interest groups have retained their power over time.



The Norwegian fishing industry derives its power from the regional importance of the fishery to Norway's peripheral regions and from being one of Norway's largest industries where 90% of the production is exported. In Norway, three factors have influenced declining willingness of the government to cater to *Norges Fiskarlag*, the key interest group in Norway. First the rise of the oil industry to Norway's most important export industry over the past 35 years has shifted the focus away from fisheries. In addition, the end of the Cold War and the declining number of fishermen has further marginalized the industry and allowed the government to increasingly ignore *Norges Fiskarlag's* preferences. These processes will be detailed in chapters 3 (Norway) and 4 (Iceland).

### **3. Who Matters, How and When**

The actors involved in the negotiations are government representatives and sometimes cabinet ministers, scientists and members of various interest groups representing the fisheries. While negotiating fishing rights, the governments entering into agreements must consider the will of its fishermen who, by and large, are private actors. If the government fails to accommodate the fishing industry, fishermen have an incentive to cheat and they have great opportunities to do so. Cheating in this case can for example entail fishing over the preset limit or by discarding fish that is considered less valuable. Because of the low marginal costs of fishing, the high costs of monitoring and enforcing, and the lack of information about the resource, cheating is always going to be a threat to any negotiated agreement. Therefore any agreement that fails to consider the will of the domestic interest groups will be rendered useless.

Because public officials are in charge of negotiating the straddling stocks fishery conducted by private operators, the preferences of both groups are important to the strategies pursued. Both the government and the fishermen are trying to maximize their utility. Having to

fight with the fishermen at home over international agreements is time-consuming and can have adverse political effects, hence the government has to balance the twin objectives of reaching an agreement and getting a share of the fishery the domestic fishermen will accept. This motivation of maximizing fishing and minimizing domestic political conflict at home provides the basis for any interaction between a government and interest groups involved and constrain the government in its range of choices of management regimes negotiated with other states. Specifically, fishermen want to catch as much fish as possible, while the government wants to ensure reelection and peace around international and domestic resource allocation. Given the preferences of the actors, these factors create different incentives among the players to cooperate around international management of fisheries resources.

#### **4. Marginal, Monitoring and Information Costs**

The likelihood of cooperation among states around migrating fish stocks is diminished by the unique structural costs of ocean fishing. The low marginal cost of fishing, coupled with high monitoring, enforcement and information costs make cooperation unlikely. These structural conditions reduce the incentive for fishermen to bear the cost of rebuilding a depleted stock, and thus make cooperation at any level difficult. Because monitoring, enforcement and information costs are higher in international waters than in domestic waters, it reduces the likelihood of cooperation around straddling fish stocks. These costs also mean that fishermen have a vested interest in the outcome of international negotiations aimed at distributing a straddling stock amongst states participating in these fisheries.

##### ***Low Marginal Costs***

Once the initial investment in vessel and gear and fixed costs are met, the cost of catching each additional fish is minimal. The more you fish the better off you will be. Vessel owners have

to pay wages, fuel and supplies, and these costs are high and largely inelastic. The low marginal cost of fishing makes it highly unlikely that fishermen are going to cull fishing on their own accord in the face of resource depletion. Instead they are more likely to travel farther in the search for a good catch, thus compounding the problem of overfishing.

### ***High Monitoring and Enforcement Costs***

High monitoring and enforcement costs increase the likelihood of cheating once a cooperative agreement is reached. There are essentially two ways to monitor ocean fishing. The primary way of monitoring fishing is to weigh and observe what is brought to harbor. While this is the most efficient way of monitoring the total catch, there are ways around it. For example a ship can choose to sell the catch abroad, which makes monitoring harder for local authorities. Another well-known practice is the throwing away of fish. In an ideal world fishermen would increase the value of their catch by trying to increase the value of the fish that happens to be caught in their nets. Reality is often much different. There is an incentive to bring back the most valuable size of fish, thus the practice of throwing away less valuable catch increases the value of the catch. Fishermen often throw away smaller, less valuable fish, the very same fish that a few years later would be spawning and contributing to the increasing fish stocks. The vastness of the high seas makes monitoring costs prohibitively high. It is therefore hard to prove wrongdoing and prevent this practice.

Secondly, the Coast Guard can observe fishing by air or at sea. Most coastal states with extensive EEZs have an official coast guard that monitors the domestic fishing banks and makes sure that local fishermen follow allocation rules. But given the vastness of most EEZs combined with constrained budgets, active monitoring of fishing is often minimal. Active monitoring also becomes less and less effective the further you go from the shore because of the vastness of the

space which increases the distance between individual trawlers. Outside the EEZ, governments lack authority and legitimacy to monitor fishing directly. For example if a state decides to monitor fishing in international waters, it could be interpreted by other states as claiming ownership of the resource, which would increase the potential for conflict.

### ***Limited Information and High Costs***

The final structural factor affecting the incentive to cooperate around ocean fishing is the lack of scientific information about the fisheries. Limited information affects cooperation through disputes over the abundance or scarcity of the resource. While both Iceland and Norway have fisheries research institutes that gather information about the fishing banks, this information is shrouded in uncertainty. For example, one fisheries scientist told me that fisheries researchers report their estimates with a least  $\pm 15\%$  margin of error. Therefore there is a great deal of room for the fishermen to challenge research findings, and they repeatedly do.

The incentive to gather information and do research outside the 200-mile EEZ is none. Limited resources to investigate what the ocean holds are almost exclusively spent researching what the 200-mile EEZ contains. Thus the knowledge about straddling stocks is very limited. In addition, scientific research is disproportionately focused on the most valuable stocks and the most established fisheries. Existing knowledge about levels for straddling stocks are often based on observations taken when the stock is within one state's EEZ. While the aforementioned factors hinder cooperation, existing cases of cooperation demonstrate that they can be overcome.

## **5. Norway and Iceland and the Global Capture Industry**

The global capture fisheries industry is a large and often a troubled one. The worldwide capture fishing industry is enormous and provides a significant portion of food to the world's population. According to the Food and Agriculture Organization (FAO), the global catch reached

about 90 million metric tons in 2003. The organization estimates that the percentage of overexploited and depleted stocks has risen from about 10% in the mid 1970s to about 25% in 2000. Hence, the problem of declining fish stocks is by no means insignificant.<sup>28</sup> Declining yields usually indicate overexploitation of the resource, while fully exploited fisheries cannot bear more fishing effort without showing signs of decline. In addition, landings of demersal species,<sup>29</sup> such as cod and ocean perch, have remained constant since 1970s. This is especially true of the Northeast Atlantic, where catches have been stagnant for the past three decades. Landings of the two main pelagic species in the Northeast Atlantic, capelin and herring, have fluctuated greatly since the 1950s.<sup>30</sup>

Globally, the capture industry employs nearly 30 million fishermen, the bulk of them living in Asia and Africa. About 700,000 fishers are found in Europe, including 18,000 in Norway and 6,000 in Iceland. The fishing industry utilizes about 1.3 million decked vessels and 2.3 million open vessels (not decked) to capture about 90 million tons of fish. A significant portion of the catch goes to human consumption, which averages about 16 pounds a person a year worldwide.<sup>31</sup> This industry is by no means insignificant.

At the global level, Iceland's and Norway's size and population belies their impact on global fisheries politics, where both countries are significant players. According to the Food and Agricultural Organization, in 2002 Norway ranked 11<sup>th</sup> while Iceland ranked 12<sup>th</sup> of all capture fisheries states, with the catch reaching 2.7 million tons and 2.1 million tons respectively. They are the biggest capture fisheries states in Europe, with the exception of Russia, which ranks 9<sup>th</sup> (however geographically, Russia only partially belongs to Europe). In addition, most of Russia's fishery takes place on the country's east coast. In terms of exporting, Norway is the third biggest fisheries exporter in the world while Iceland ranks 13<sup>th</sup>, no small feat for states that have

populations of about four million in Norway and about 300,000 in Iceland. Given Iceland's and Norway's importance at the global level, their regional importance in the Northeast Atlantic is also large. As the two biggest capture fisheries states in the Northeast Atlantic their cooperation is key to any successful negotiation on the allocation of straddling fish stocks in the area. As two of the leading capture fisheries states in the area, their cooperation warrants close scrutiny and it provides a stepping stone to explore the other conflicts over allocation of straddling stocks in other parts of the world, for example between the United States and Canada.

## **6. Conflict over Common Fish Stocks**

The political problem of allocating fish stocks involves solving three different but closely related collective action problems. These problems are differentiated by the location of the stocks being allocated. Fish stocks can be found exclusively in international waters, exclusively within the 200-mile EEZ, and can straddle international waters and EEZs. The location of the stocks determines the actors involved. Stocks found exclusively inside the 200-mile EEZ do not require international negotiations to manage the stocks. The need for cooperation arises around so-called straddling fish stocks, which migrate between international waters and EEZs, or between different EEZs, and around highly migratory species that are found exclusively in international waters. Stocks classified as straddling include some of the most valuable fish species in the world, such as cod, herring, capelin and ocean perch. This section gives an overview of the global capture fishery, the inherent conflicts over cooperation around common pool resources, setting the stage for the final section of this chapter which discusses the four fisheries Iceland and Norway have cooperated on: capelin, herring, cod and oceanic redfish.

To insure the sustainability of the resource over the long run, straddling stocks can only be successfully managed through international cooperation. If there is no international

cooperation around the management of straddling stocks, distant-water trawlers and factory ships can scoop up the fish and leave nothing for the domestic fishing sector of the nearby coastal state. Alternatively, the domestic fleet can deplete the stock within its own EEZ, leaving nothing for those fishing in international waters or adjacent EEZs. International management agreements limit fishing amongst the participating states and hence limit the quantity domestic fishermen can catch. Reduction in the share a state's fishing fleet is allowed to catch has both economic and political consequences, providing governments with the incentive to try to prevent stock depletion. In reaching allocation agreements the amount each state gets to catch is invariably less than what their fishermen were able to do before the agreement. Hence successful negotiations have direct negative consequences for the fishermen involved, who are usually private actors.

Following the extension of the Exclusive Economic Zone (EEZ) to 200 miles in the late 1970s, the salience of high-seas fishing – defined here as fishing outside the EEZ – declined in the 1980s. Fishing states focused their efforts on fishing within their own newly created and seemingly abundant EEZs. However, with the decline of fish stocks within EEZs, high-seas fishing efforts increased again in the 1990s as fishermen tried to make up for declining catches at home.

The starting point of this research is the expansion of the EEZ to 200 miles in the late 1970s. This expansion fundamentally altered the institutional structure of the fishing industry by putting about 90% of the most valuable fish stocks under domestic management. Heralded as a solution of the uncontrollable fishing on the high seas, the change was thought to solve all problems of overfishing. A few years later it became clear that individual governments were having problems with depletion of stocks within their boundaries. In fact the problem of overfishing had not been solved in the late 1970s, only transferred to a different domain.

The push into the high seas led to increasing conflict among fishing states evident by the 1995 the Canadian Coast Guard seizing the 210-foot Spanish trawler “Estai” about 20 miles outside the Canadian EEZ and charging the crew with illegal fishing.<sup>32</sup> The Falkland Islands’ Coast Guard chased Taiwanese ships, Scottish fishermen attacked and destroyed the catch of a Russian trawler,<sup>33</sup> and relations within the European Union are notoriously conflictual regarding the common management of the European EEZ.<sup>34</sup> In addition, Iceland and Norway fought bitterly over Icelandic trawlers fishing in the Barents Sea during the 1990s.

## **7. Tragedy of the Commons**

Within the broader field of cooperation, the problem of managing global commons has emerged in recent years as one of the most perplexing problems facing states in the international arena.<sup>35</sup> The problem traps governments and societies in a social dilemma of how to allocate scarce resources, both globally and locally. Here, global allocation refers to stocks found in international waters as well as stocks that straddle international boundaries. Any management of straddling stocks involves negotiations among states to properly manage the stock and prevent overutilization. Local allocation refers to the domestic management of stocks within the 200-mile EEZ, which is the exclusive jurisdiction of individual governments.

This social dilemma of managing the global commons has its roots in the “tragedy of the commons,”<sup>36</sup> with the solution resting on overcoming the problem of collective action.<sup>37</sup> Individuals utilizing common pool resources cause degradation because no one has an incentive to protect the resource for future use, which ultimately hurts the users’ long-term interests. Overcoming this problem requires collective action on behalf of the participants. If only one fisherman decides to protect the resource, by either limiting his own catch or by protecting young



fish, others will catch what he left behind and reap the profit. Solving this problem is the central issue in domestic and international management of fisheries within the 200-mile EEZ.

Theoretically, the tragedy of the commons should be avoidable within the EEZ because governments can determine national fisheries policy and enforce agreements, but empirically this has not been the case. Mismanagement of stocks within the EEZ has been pervasive, and during the 1980s both Iceland and Norway were faced with a collapse of the cod and capelin fisheries. Domestic management is compounded by the fact that some stocks straddle across boundaries. That is, they travel between nationally managed local commons and global commons, where anyone is allowed to catch the fish. Hence, complete management of straddling fish stocks requires international cooperation.

## **8. The Fisheries and the Quest for International Cooperation**

The problem of management of straddling fish stocks has been pervasive in the North Atlantic since the early 1980s, where Iceland and Norway are key players. This section reviews the fisheries around which Iceland and Norway cooperate. It details the history of these fisheries as well as discusses the need for international cooperation. It thus provides the necessary background for the rest of the book.

### ***The Capelin Fishery***

Capelin is a relatively small, pelagic species found in the North-East Atlantic, the Barents Sea, Southwest of Greenland, off the coast of Labrador and around Newfoundland. It is also found in the Northern Pacific, along the entire Alaskan coastline, across the Bering Sea to the coast of Russia. While the distribution is great, individual capelin stocks are quite different. The focus here is on the allocation of the Icelandic stock. It spawns along the south coast of Iceland and in its second year it travels west and north between Iceland and Greenland, later entering the

fisheries zone around Jan Mayen before entering the Icelandic EEZ in January. Iceland has been harvesting Icelandic capelin since the mid-1960s and Norway's fishery around Jan Mayen began in the late 1970s. Apart from fishing from the Icelandic stock, Norway has a substantial fishery in the capelin stock in the Barents Sea – the world largest capelin stock – since 1960s.

Capelin is an important stock for two related reasons. First, it is valuable when processed into fishmeal, oil and roe (caviar). The first two products are mainly sold as low-priced animal feed, while the roe is the most valuable product because it is sold for human consumption. Second, capelin is the dietary staple for Atlantic cod, the most valuable fishing resource for the states in and around the North Atlantic. About a third of the cod's food intake is capelin. Therefore, during times when the capelin stock is low cod is only partially able to compensate for the loss of capelin by feeding on other prey.<sup>38</sup> Fluctuations in the capelin stock will therefore later be reflected in the cod stock, which has profound economic consequences for the communities dependent on cod.

As a result, any agreement to preserve capelin has to balance two objectives: to maintain the level of the stock so it can be safely harvested while leaving enough behind for other fish to feed on. This task is compounded by the stock's extremely short life span, a peculiar biological feature of Icelandic capelin. In its third year, capelin spawns and then suffers mass mortality. Spawning mortality is virtually complete, which results in a highly volatile stock that has been difficult for scientists to predict. Through 25 years of research and trial and error, fishery scientists have converged on allocating about 400,000 tons for spawning each year and allowing fishermen to catch the rest.<sup>39</sup>

In 1958 the Technical Laboratory of the Icelandic Fisheries Association initiated an experimental capelin fishery for the production of meal and oil. Even though the results were

promising, the Icelandic capelin fishery did not begin until 1964. Initially the fishery took place in February and was confined to the southwestern part of the Icelandic coast. Then in the late 1960s, the Norwegian Spring-Spawning herring stock collapsed and the capelin fishery gained importance. By 1969 most of the Icelandic herring fleet had become involved in the winter fishery for capelin.

Capelin is currently fished in the summer, fall and winter. The winter fishery takes place exclusively within the Icelandic EEZ and is predominantly conducted by Icelandic vessels. In the late 1970s and again in the late 1990s, the Faeroe Islands were allowed to catch a small amount of capelin within the Icelandic EEZ, and from 1986 onward Norway was allowed to fish capelin off north and east Iceland in January and February. When Greenland was added to the bilateral Norwegian and Icelandic agreement, it too got permission to fish within the Icelandic zone.<sup>40</sup>

The summer capelin fishery started in 1976 after a failed attempt the year before. Due to the success of the 1977 Icelandic summer fishery, Norwegian fishermen began an experimental capelin fishery in the Jan Mayen area in 1977. Their first search for capelin in the area was inconclusive, but they were more successful in 1978, leading to pressure for negotiations on the management of the stock. Figure 1.1 shows catch levels for Iceland and Norway.

[Figure 1.1 about here]

It is clear from this figure that Iceland dominates the fishery, with Norway fishing between 10 and 15% annually over the past 20 years. After 1989, Greenland was also allocated an 11% share of the fishery, which is caught mostly by the Faeroese, the European Union and Iceland. In addition, these figures demonstrate quite well the remarkable volatility of the Icelandic capelin stock. The capelin fishery collapsed because of overfishing in 1982 and was closed for 18 months before fishing resumed. The fishery collapsed again in the early 1990s,

which illustrates that strict management measures are not always enough to ensure stock survival. A great deal of uncertainty still surrounds stock levels, making scientific advice imprecise, which can lead to TACs being set too high.

### ***The Herring Fishery***

Until its collapse in the late 1960s, the Atlantic-Scandinavian herring stock was the second most important fishery in both Iceland and Norway, exceeded in value only by cod. The fishery caused an economic boom in both countries when catches peaked in the 1960s. The importance of herring to the Icelandic economy can be seen in its some of its nicknames: “ocean’s silver”, “Iceland’s gold” and “the national savior.”<sup>41</sup> The herring fishery in the 1960s was a great boon to the Icelandic economy. It allowed for new vessels being built and led to substantial changes in the composition of the Icelandic fishing fleet. Vessel owners invested in numerous highly efficient steel ships, replacing older and smaller wooden vessels.

Following record-years in 1966 and 1967, the stock collapsed completely in 1969 resulting in a multilateral ban on the fishery of Atlantic-Scandinavian herring. During the two decades that followed, the Norwegian-Icelandic herring was only found within the Norwegian and Soviet/Russian EEZs. The stock’s sudden disappearance, followed by two decades of stock rebuilding with very limited fishing in Norwegian waters, made its exponential growth and sudden reappearance in international waters in the early 1990s headline news. The catches of Norwegian-Icelandic herring in Icelandic waters are shown in Figure 1.2.

[Figure 1.2 about here]

The graph shows the dramatic ups and down of the fisheries during the past 40 years. These highs and lows can be attributed to herring being a fickle and somewhat unpredictable species. In addition, there is more than one stock of herring in Icelandic and Norwegian waters.

Within the Icelandic EEZ there is spring spawning herring and fall spawning herring and Norwegian fishermen share the North Sea herring with the countries of the European Union, specifically Britain, Denmark, Sweden and the Netherlands. Most importantly though, there is the Norwegian-Icelandic herring stock, which at high stock levels is a typical straddling and highly migratory stock crossing the borders of several EEZs as well as international waters. This is the herring stock that will be discussed here, as its sudden appearance in international waters called the “Loop Sea” in the early 1990s presented a common management problem for the states around the Atlantic.

The stock’s travel pattern is dictated by the search for food, but the pattern changes frequently. This unpredictability has made the management of the stock difficult both domestically and internationally. For example, by the end of the 1950s, fisheries scientists had documented the travels of the herring stock as beginning in Norway and ending up close to the north-east coast of Iceland in the summer and winter. But already in the 1960s the pattern changed again. Part of the stock spawned off the coast of the Lofoten Islands in Norway, its feeding grounds were far north in the Norwegian Sea and it spent the winter off the coast of Northern Norway. In addition, there have been times during the past 30 years when herring was abundant in Norwegian fjords one year, with no herring in sight in the following year.<sup>42</sup>

Following the collapse in the late 1960s, the stock began a new travel pattern. Grown herring now spent the winter in Norwegian waters close to the coast and only briefly in the spring did it feed farther from the shore. In the 1970s, traditional areas for the adolescents in the Barents Sea were empty. In 1983, the travel pattern changed and young herring again began to spend its adolescence in the Barents Sea, within the Soviet EEZ. This led to an agreement between Norway and the USSR over utilization of the stock where the Soviet Union agreed not

to fish young herring in exchange for catch quotas of more valuable adult herring in Norwegian waters. Young herring can only be used for inexpensive meal and oil production, while adult herring fetches higher prices as it is used for human consumption. In 1986 this herring left the Barents Sea and by 1995 the travel pattern had changed drastically to resemble that of the 1960s, with the exception that the herring still does not spend the winter in Icelandic waters as it had done then. But with the stock size still increasing, there is indication now that the stock is starting to spread into the Icelandic EEZ.<sup>43</sup>

### ***The Barents Sea Cod Fishery***

Cod is historically the single most important fishery in both Norway and Iceland. As Table 1.1 showed, in 1993 the cod fishery contributed more than 30% to the value of fish exports in Iceland and Norway. But cod comprised only 11% of the total catch by weight in Iceland and nearly 15% in Norway. History has shown that any conflict over the cod fishery, regardless of whether the conflict is domestic or international, has been highly political and fierce. This applies to conflicts within Iceland and Norway as well as between them. Economically, cod is the most important fishery. In addition, this fishery has a long history and interest groups representing the cod fishery are highly organized and entrenched.

Over the past 20 years, the cod fishery in Iceland and Norway has been problematic because of resource depletion due to overfishing taking its toll. Despite increased scientific knowledge and stricter governmental regulations, there has been substantial overfishing in both states. During the 1980s both Icelandic and Norwegian fishermen faced a collapse of their respective cod stocks. Iceland's collapse came in the early 1980s, while Norway's cod stock in the Barents Sea collapsed in the late 1980s. Since then neither stock has fully recovered.

The TAC for North-Atlantic cod fished by Norwegians was determined in annual bilateral discussions with the Soviet Union until the early 1990s, when Russia became Norway's negotiating partner following the demise of the Soviet Union. The Joint Norwegian-Russian Fisheries Commission each year determines the TAC and then divides it among the states. As in the other negotiations *Norges Fiskarlag* is an important participant in the Norwegian delegation, and once the TAC is set it is divided among different vessels and regions according to domestic allocation rules in Norway.

Following a decade of restricted cod catches in Icelandic waters Icelandic ships began in 1993 to fish in international waters between the economic zones of Norway and Russia, the so-called "Loophole", and also in the Barents Sea. This development was a direct response to lower TACs and quotas within the Icelandic EEZ, which had led the owners of the larger fishing vessels to search for catches and profits outside the Icelandic EEZ. This first year of fishing in the "Loophole" and the Barents Sea was considered a success, with 42 ships catching 9,700 tons of fish, mostly cod.<sup>44</sup> The fishery was even more successful the following year, which further deepened the conflict. But after three successful years in a row, the fishery has never really reached the same levels. The amount of cod caught since 1993 is shown in figure 1.3.

[Figure 1.3 about here]

The fishery in the "Loophole" was not the only venture into international waters and the economic zones of other states. Additionally, Icelandic vessels began a prawn fishery in the Flemish Cap off the eastern Canadian coast, a halibut fishery off the coast of Greenland and the aforementioned oceanic redfish fishery off the southwest coast of Iceland.

The Icelandic vessel owners themselves initiated this push into the high seas, not the Icelandic government. The fact that the vessel owners themselves began fishing in international

waters is indicative of their position within the Icelandic economy. Most changes in fisheries policy originate within the industry, not the government. This increased emphasis on high-seas fishing represented a change for the Icelandic fishing fleet, which had until then focused almost solely on fishing in the Icelandic EEZ. When asked by a journalist in 1993 about whether or not this represented a change of policy for the Icelandic government, then foreign minister Jón Baldvin Hannibalsson said the right of Icelandic fishermen to fish in international waters could not be taken away from them.<sup>45</sup> In general, the Icelandic government was very reluctant to interfere with the fishery in the “Loophole”, and it was also unable to do so as it lacked a domestic legal framework governing the conduct of Icelandic fishing vessels in distant waters.

### ***The Oceanic Redfish Fishery***

The Oceanic Redfish fishery is the newest fishery discussed here. It began in 1982, when the Soviet Union started the fishery in international waters southwest of Iceland. Iceland joined in 1989 and Norway in 1990. While oceanic redfish is gaining in economic importance, it still lacks the economical and thus political importance of the traditional demersal and pelagic fisheries. This is evident in the handling of negotiations concerning the catch levels of the stock and its allocation to the different states interested in the fishery. The negotiations were conducted fully within the North East Atlantic Fisheries Commission (NEAFC) by a Working Group led by a Norwegian lawyer employed at the Norwegian Directorate of Fisheries.

Oceanic redfish is found within Icelandic and Greenlandic waters as well as international waters southwest of Iceland. Several states have participated in the fishery that takes place off the southwest coast of Iceland. The two coastal states involved are Iceland and Greenland. As defined by the Law of the Sea, this classification gives Iceland and Greenland greater interests in and responsibility to manage and ensure sustainability of the stock. Everyone else involved is a



distant-water fishing state. These states include Russia, Poland and Norway and vessels from European Union states.

Lack of knowledge about the stock has made management decisions problematic. When the Soviet Union began the fishery in 1982, very little was known about the stock, and although scientific knowledge has improved, there are still gaps in this knowledge. Initially, the crucial question that had to be determined before any negotiations could begin was whether or not oceanic redfish was a separate stock from redfish, a longstanding fishery within the Icelandic EEZ. In addition to uncertainty about what stock was being fished, there was also uncertainty surrounding its characteristics, such as its distribution and migration pattern.

The Soviet Union had already begun researching the stock in 1982. The states that have contributed to research alongside Soviet Union/Russia are Iceland, Germany, Norway and the Faeroe Islands.<sup>46</sup> Over the past 15 years research has shown that there are two different species of redfish, *sebastes mentella* and *sebastes marinus*. Within the *sebastes mentella* species there are two different stocks that play a role: redfish and oceanic redfish. Oceanic redfish closely resembles redfish, which is harvested within the Icelandic EEZ. Oceanic redfish is generally not found in international waters until spawning, it is found at shallower depth than redfish and it is significantly smaller when it spawns.<sup>47</sup>

The fishery takes place in April and May each year, around spawning time when its population is densest above the Reykjanes Ridge and in the western part of the Irminger Sea. After spawning, adults move further west towards East Greenland. The larvae drift toward the coast of West Greenland. Initially the fish was mostly caught at depths of 350-450 meters, but since the 1990s, oceanic redfish has increasingly been caught at depths of greater than 500 meters (1500 feet).

Uncertainty still surrounds the oceanic redfish stock. In a 1998 International Council for the Exploration of the Sea (ICES) report, two Icelandic marine researchers warned that there was uncertainty about whether or not there were one or two oceanic redfish stocks in the Irminger Sea, one found at depths greater than 500 meters (1500 feet) and one found at depths shallower than 500 meters. They concluded that there were many questions that were unanswered regarding the biology of the redfish in the Irminger Sea and adjacent waters and that there needed to be a great deal of research effort to improve knowledge.<sup>48</sup> This uncertainty poses a significant problem as all the research has focused on the stock found above 500 meters, while the fishery is increasingly being conducted at greater depths. That is, the current management measures of the stock could be based on scientific information about a different stock.

Iceland and Norway have harvested redfish within their respective EEZs for decades, but the oceanic redfish fishery did not begin until 1982 when the Soviet Union and Poland began the fishery in international waters between Iceland and Greenland. In 1984 Bulgaria and East Germany joined in. Iceland began fishing oceanic redfish in 1989 and in 1990 was joined by vessels from Norway and Japan.<sup>49</sup> In 1994 Latvia, Lithuania, Estonia and Ukraine also reported catches. Despite increased interests in the stock in the late 1980s and early 1990s, the total catch, in tons, diminished. The Soviet Union caught 61 thousand tons in 1982, the catch increased to 105 thousand tons in 1986 and then reduced to 23 thousand tons in 1990. The main reason for this drastic reduction in the total catch was reduction in effort in the late 1980s, especially by the Soviet Union.<sup>50</sup> Figure 1.4 shows the development of the oceanic redfish fishery since 1982.

[Figure 1.4 about here]

Russia and Iceland have been the most active states in the fishery since Iceland joined it in 1989. In comparison, the Norwegian share of the fishery has been considerably smaller than

the Icelandic share, peaking at only 15,000 tons in 1993.<sup>51</sup> In the years before the agreement was reached in 1996, only three Norwegian factory trawlers participated in the fishery and their success in catching oceanic redfish has varied. Preliminary figures for 1998 showed that the three Norwegian trawlers engaged in the fishery managed to catch about 760 tons of the 6,000 that were allocated by NEAFC, and all indicators of stock size spelled decline and overutilization.<sup>52</sup> Distribution of the catch among Iceland, Russia and Norway is shown in figure 1.5.

[Figure 1.5 about here]

It is evident that Russian fishery has declined significantly since its peak in 1986, when Soviet vessels caught nearly 85,000 tons. Their fishery bottomed out in 1990 and 1991, during the collapse of the Soviet Union but has since increased again to around 40,000 tons a year. The Icelandic oceanic redfish fishery took off in 1995, when Icelandic vessels caught 53,000 tons and peaked in 1996 at 63,000 tons. Since then the fishery has remained within the 45,000-ton limit imposed by NEAFC. The Norwegian catch has also come down from its peak, and now Norway barely manages to catch its quota.

## **9. Summary**

Distributive conflicts lie at the heart of international cooperation. While the question of why nations cooperate has dominated the literature, a body of work focusing on the domestic level has helped us understand theoretically how constraints influence distributive outcomes of international negotiations. This research contributes to our understanding of distributive outcomes by providing a detailed study of seven agreements signed by Iceland and Norway seeking to allocate straddling fish stocks in the North Atlantic and the Barents Sea. It thus advances the emerging literature on domestic sources of international cooperation by analyzing a

prominent and difficult conflict between two advanced industrial democracies. Second, a systematic comparative study of the fishing industries in Iceland and Norway is long overdue.

While political scientists have attempted to model the effect of domestic politics on international agreements, there is no consensus on how domestic politics matter. In addition, the literature on international cooperation focuses almost exclusively on economic issues, such as trade or monetary cooperation. By using the concept of domestic constraints in the form of strong interest groups participation this research advances the international political economy literature on international cooperation theoretically and empirically.

There exists a large literature on the fishing industries in Iceland and Norway, but there exists no systematic comparative study of the different institutional structures of the fishing industry and how they might affect outcomes of international negotiations. Instead most of the existing work seeks to analyze policies within each state separately, which reduces its theoretical usefulness. This study of negotiations between Iceland and Norway over fishing resources in the North Atlantic and the Barents Sea seeks to fill this void and provide a systematic study of the role of the fishing industry in the two states in international and domestic politics over the past 20 years.

The book is organized in the following manner. Chapter 2 discusses the development of the Law of the Sea and how it frames international negotiations over resource allocation. It also discusses the role of key regional organizations that matter for the negotiations over resource allocation. Specifically the focus is on the North East Atlantic Fisheries Commission (NEAFC) and the International Council for the Exploration of the SEA (ICES). Chapters 3 and 4 discuss the fishing industries in Norway and Iceland respectively. These chapters mirror each other by outlining how the two countries have participated in the creating the Law of the Sea regime,

actions each country took to expand their EEZ and how they dealt with countries that had been fishing in the area before the extension. It then discusses the key actors to consider for international negotiations, before delving into the nature of the relationship between key interest groups representing the fisheries and the government and how this interaction influences the outcome of international negotiations. Chapter 5 discusses the negotiations for the different stocks in detail and how the interest groups in Iceland and Norway constrain their negotiators and thus influence the size of the win-set. Chapter 6 is the conclusion and gives an overview of the key findings as well as possible further research into the role of domestic constraints on international negotiations.