

Icelandic fisheries: Social perspectives

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Abstract

Many rural fishing communities in Iceland are facing great economic and demographic difficulties due to changes in the fisheries management, while the national economy has benefited as a whole. Large vessel owners generally support the current system, but most small boat owners oppose it. Alaska can learn from Iceland's experience in fisheries management, both from an economic and social perspective.

Introduction

Icelandic fisheries management is based on total annual catches (TAC) and individual transferable quotas (ITQ). The current management system was first introduced in 1979 for the herring fishery, and by 1991 a comprehensive and uniform ITQ system applied to all major fisheries in Iceland. Since then, trading and leasing quota has enabled more efficient companies to buy out and merge with less efficient ones, making the fisheries more profitable for the country as a whole. At the same time, many rural communities are facing hardship due to quota trade and companies relocating or merging.

Fisheries are of great economic importance in Iceland, both nationally and for the majority of towns and villages. Marine products amount to around 60% of exported goods and service, an 8% direct contribution to the national GDP. From a total population of 300 thousand inhabitants, there are around 5 thousand Icelanders employed in fishing, 5 thousand in fish processing, and 3 thousand in related businesses. The main fishing ports are rather evenly distributed around the country.

The typical fishing village in Iceland has one fishing company that operates a freezing plant and a few fishing vessels. Since fishing is a key provider of direct and indirect employment in these communities, local and national funds have been used in the past to save fishing companies from bankruptcy, offering favourable loans until catches increase again. Such measures have not been enough to stem the movement of fishing quotas from remote regions towards more densely populated regions, from many small companies to fewer and larger companies.

Fisheries are a significant part of the Icelandic national identity. Having gained independence from Denmark in 1944, the fledgling state fought Britain and others in 1952–1976 over fishing rights around the island. After four Cod Wars, Iceland successfully claimed an economic exclusive zone stretching 200 miles from the coast, which subsequently became the international norm. For many people, fishing rights are very much intertwined with the symbolic notions of national sovereignty, personal autonomy, and equity.

The public debate about the ITQ system has focused on how groundfish quotas were initially allocated in 1983, the negative effects on some rural communities, and to what extent fishing companies should share the increased profits with the general public (the former owners of the resource). The management system is stable and efficient, with occasional small amendments, but politicians, vessel owners, fishermen, economists, lawyers, and the general public remain divided in their opinion on ITQs.

This paper focuses on the social benefits and costs that have resulted from changes in the Icelandic fisheries management system, while a companion paper highlights the economic perspectives.

The fishing village

Outside the capital (Reykjavik) region, fisheries typically account for around 20% of the total income, highest in the most remote regions (Westfjords 35%, East Iceland 29%). The quality of life (health, education, income, etc.) is quite high throughout the country, and the average income is only slightly higher in the capital region than in the countryside. Wages in the fish processing sector are close to the national average, but around 50% higher in the fishing sector and used to be higher than that. The processing sector employs mainly women and the fishing sector mainly men.

Before the days of ITQ management, communities with 200–2000 inhabitants usually had one vertically integrated fishing company, owning and operating a freezing plant and one or more fishing vessels. Local municipalities and co-operatives were usually the owners or major shareholders. Persons or families in charge of the company were most likely also represented in the community council, and company interests were usually seen as equivalent of community interests.

Companies were often established by public agencies and later turned over to private ownership, but in times of financial crisis the municipalities still felt obliged to intervene with all possible means to prevent a closedown of the local freezing plant. Favourable loans from public funds were used to put a bankrupt company back in business. Under ITQ management, it can be argued that such strategies are made more difficult than before, due to the added cost of purchasing quotas to continue as fishing communities.

Effects of ITQs on communities

Since the late 1980s, the vulnerability of small fishing communities with poor employment alternatives has become more visible, as several fishing villages have lost most of their quota when the owners moved or sold out. Small communities (<500 inhabitants) have on the average lost a much larger share of their quotas than the bigger communities. The annual catch of cod declined every year between 1987 and 1995, putting financial pressure on all quota owners. For example, a small boat owner controlling a 0.1% cod share was entitled to 254 tons in 1987, 200 tons in 1991, but only 106 tons in 1994.

Larger companies had more success in adapting to the situation. While many small companies were forced to sell their ITQ shares, the larger companies reacted by buying up this new supply of permanent fishing rights. A major factor in the success of the larger companies in accumulating fishing rights is their ready access to capital through the Icelandic banking system, something that is less available to the smaller operators.

Since the 1990s, large fishing companies have increasingly been sending their trawlers to fish in international waters. These fisheries are outside the ITQ system and there is little guarantee about what the allowable catch will be in coming years. When companies can keep their vessels in action without requiring quotas, an extra profit can be made by leasing part of their quota, typically to small boat owners.

Proponents of ITQs often argue that the system allows for smooth structural adjustments, as owners of inefficient vessels are compensated for leaving the fisheries when they sell their

quotas. Vessel owners can sell their quota shares for around 10 times the value of the annual landed catch, but vessel owners are not the only people who have invested in the fisheries.

Those who have put their lifetime savings into building a home in a fisheries community and paid municipal taxes to build common infrastructure, also find their livelihood punctured when companies leave and take the fishing rights with them. Neighbours who more or less considered themselves as equals in the 1970s and 1980s, have suddenly found themselves in totally different positions. If the quota owner decides to sell the quota to an outsider company, in exchange for a comfortable retirement in Reykjavik or by the Mediterranean, his neighbour's family may face unemployment and owning a home that's impossible to sell.

While the effects of ITQs do contribute to the marginalization of some fishing communities, changes in technology and markets contribute as well. The land-based frozen fish production is in decline, while processing at sea and export of fresh products have increased. As a result, when large fishing companies have bought up smaller ones, they may find it more cost-efficient to reduce the number of ports for landing their catch.

Quota trade and demographic trends

Quota ownership has changed as a result of purchases and companies merging. The most common form of quota aggregation is that small quota owners merge with bigger companies and receive company shares in exchange for their quota shares. For large and efficient companies, buying companies seems to be a more attractive option than buying quota shares.

Between 1992 and 1997, the number of companies in the fishing sector decreased by 17%, from 1810 to 1496. Companies of all sizes (0–9, 10–29, and 30+ employees) have become fewer, while the remaining large companies have grown in size. The top 20 quota owners totaled 36% of the quota in 1992, but by 2001 this figure had risen to 59%.

For the most part, government policies on regional development have not been articulated in detail, but rather had a common emphasis on maintaining population in all regions of the island. This has been effected in the past by supplying credit and grants to marginal areas, providing capital, for example, to fishing firms in the various villages.

Along with a general liberalization of economic policy in Iceland, there is a trend towards an ideological shift within the industry, leaving behind the idea that fisheries and fish processing should be locally embedded in fisheries communities. Many fisheries companies are listed on the Icelandic stock market, and ownership is in many cases not linked to any particular community. With an increasing number of stockholders, one could in fact argue that quota ownership is diversifying rather than concentrating.

To quantify the geographic movement of cod quota since the establishment of the ITQ system, it is useful to compare the cod TAC allocated to each region in 1991 and 2005, as a proportion of the national TAC. Two rural regions have seen substantial reductions: East Iceland's share of cod quotas is down to 68% of what it was in 1991, and the Westfjords are down to 75%. Conversely, the more densely populated areas now own an increased proportion of cod quotas: the share in the Southwest is 123% of what it was in 1991, Akureyri is up to 134%, and the West is up to 158%. Other regions have changed less between 1991 and 2005. The overall picture is that rural regions own a reduced proportion of the cod catch, and the more densely populated regions own a larger proportion than before.

Population increase and decrease has largely followed the same pattern as the quotas, along with a general trend related to distance from the capital region. This does not mean, however, that there is a simple causal relationship between the migration of quotas and people. First, the capital region keeps growing although it has not increased its share of cod quota, so young people are moving there from the countryside for other reasons. Secondly, the demographic shifts are a continuation of trends dating long before the ITQ system was introduced. Nevertheless, there is little doubt that decreased quota ownership is aggravating the population decline in remote fishing villages.

Closer look at selected regions

Reykjavik is the capital and along with adjacent towns contains around two thirds (190 thousand) of the country's population (300 thousand). Despite Reykjavik's economic dominance, only around 6% of the quota is owned by companies in the city. This proportion has remained relatively constant since 1991.

Akureyri is the largest town in northern Iceland, with 16,600 inhabitants. Its infrastructure and financial capacity has given it a stronger position to acquire quota than most smaller villages. Towns in the Southwest and West regions are impacted by the proximity to Reykjavik and, like Akureyri, have generally increased their quota holdings substantially.

Westfjords is the most rural region and has lost around 40% of its population since 1940, from 13000 to 7700 inhabitants. In recent years, migrant workers and permanent immigrants have moved to the Westfjords, especially from Eastern Europe. They are considered hard-working and have managed to adapt to the local community; in some villages they are today 15–20% of the inhabitants. Cultural tensions could arise in times of economic hardship, but signs of this have not been alarming so far. Extreme poverty is practically absent in Iceland, given the strong welfare system that provides free education, healthcare and various benefits for those who are unemployed or receive low wages.

East Iceland is the region furthest away from the capital. This is where most of the pelagic catch (capelin and herring) is landed, dampening the effect of decreasing cod quota holdings in the region. Today, the East Icelandic economy is benefiting from the ongoing construction of the largest dam and aluminium smelter in the country. The construction workforce is primarily migrant workers who will leave once the project is finished, but the smelter will provide direct and indirect employment for many locals.

Acceptance and criticism of ITQs

The most active participants in the ITQ debate in Iceland are, not surprisingly, the stakeholders. Owners of large fishing vessels and those in charge of major fishing companies are the most influential supporters of the ITQ system. This group of stakeholders is represented by the Federation of Icelandic Fishing Vessel Owners, and for them the system provides new opportunities to maximize profits. In contrast, the smaller operators tend to perceive the ITQ system as an irritation and obstacle to their traditional way of fishing. Individually, and through the National Association of Small Boat Owners, they criticize the system in the daily media and ask for a major overhaul of the fisheries management system.

The debate is not only about ITQs, whether and how quotas should be transferable, but also about TAC management, whether the Fisheries Ministry should allocate annual catch limits to vessels, as opposed to restricting days of fishing, areas or gear use. The experience in Iceland and elsewhere suggests that TAC management can improve the economic efficiency of a given fishery, despite the cost of increased catch discards, and that ITQs can further increase profitability, reduce discards, and foster cooperation between the fishing industry, managers, and scientists.

The three main points of debate involve the method of initial quota allocation, how the profit should be divided between fishing industry and the public, and what should be done to reduce the economic and social hardship that many remote fishing villages are currently facing.

Initial allocation of groundfish quotas in 1983 was based on the catch history over the preceding three years. Those who did not opt out of the TAC system at the time, received the quota shares for free. In the next years, some owners of small boats sold their quota shares for a windfall profit and left the system. Such practice is generally castigated by fishermen and cited by the opponents of the ITQ system as indicative of its inherent immorality. Others argue that no other method of initial allocation would have been acceptable for the fishing industry at the time.

Increasing profitability of the fishing industry has led to a public demand of special taxation of some kind, since fish stocks are the common property of the people by law. Some politicians and economists have argued that quotas should decay by a certain fraction every year, and that the government should auction the recycled quota. This arrangement would not only be a form of taxation, but also make it clear that the quotas ultimately belong to the public. A simpler form of taxation was supported by the industry, and in 2004 the government introduced an annual fishing fee of 9.5% of company profits, and that it should replace older fees related to law enforcement and vessel decommissioning.

To reduce the negative effects of the ITQ system on remote fishing villages, the Minister of Fisheries administers an annual reserve of groundfish quotas (up to 12 thousand tons of cod equivalents, around 6% of the annual TAC) to distribute to vessel owners in communities where the fishing industry is facing hardship. Another attempt to support these communities has been in the form of recent amendments in the fisheries law, addressing the smallest fishing boats, which often operate in small villages. The inhabitants, on the other hand, generally claim that the only help needed is to abolish the ITQ system and undo the changes it has caused in terms of reduced fishing rights.

In a 1999 poll among the general public, published by the journal of the Icelandic Fisheries Association, only 7.1% of respondents wanted to keep the ITQ system unchanged. However, only 17.3% wanted to abolish the quota system altogether. The largest group, 33.3%, favoured some kind of regional allocation or “community quota”, with the rest split between options of increased taxation.

Like the stakeholders, other groups of the Icelandic society are split in their opinion on ITQs. The political parties in power defend the system, while other parties propose various changes, and a party was founded in 1998 whose main agenda is the abolishment of the ITQ system. Many lawyers and parliament members see a contradiction in defining the fish stocks as public property, but fishing rights as private. Most economists support the system, which is after all their brainchild, although some of them criticize the initial allocation, the idea of handing a public resource over to the private sector for free, or other aspects of the Icelandic ITQ implementation. Fisheries biologists tend to favour the TAC system, which has made their ecological advice easier to give and follow, but the issue of quota transferability is outside their field of expertise. The ITQ system has generally more support among the general public in urban areas than in rural areas. The media coverage has decreased over the last few years, as other factors of the national economy have grown in importance.

Conclusions

The economic and social effects of ITQ management in Iceland can be summarized with the following diagram:

Pros	Cons
Improved economic performance of the fishing industry	Economic and social hardship in communities where quota holdings have decreased
Quota owners support sustainable fisheries management	Windfall profits for vessel owners at the time of initial quota allocation

Some communities are facing great economic and demographic difficulties due to changes in the Icelandic fisheries management, while the national economy has benefited as a whole. The communities that have lost the largest share of their quota are found in the most remote regions in the country, the same regions that are most economically dependent on fisheries. Many critics of ITQ management are not arguing against the economic benefits of the system, but rather asking who is enjoying these benefits, and at what cost to whom.

ITQ systems that have been implemented around the world vary greatly, in terms of restrictions that apply to quota trade. The magnitude of economic benefits and social costs will depend on how restrictions are implemented. The Icelandic ITQ system has substantially less restrictions than the Alaskan ITQ system for halibut and sablefish, but the restrictions are of the same kind.

Among the possible reasons to include restrictions on quota trade are to protect regional employment and to retain traditional modes of fishing, in terms of vessel types and business structure. Regional and vessel type restrictions have not been implemented in Iceland, but in Alaska the quotas can only be traded within a management area and vessel class. In Iceland an individual can own up to 12% of the total cod quota (higher percentage for other species), but in Alaska up to 0.5% of the total halibut quota or 1% of the sablefish quota. The required fishing activity of a quota owner also varies; in Iceland it's enough for the person or company to own a boat, while in Alaska the owner must also be physically on board the boat when his quota is being used. Another way to own quota in Iceland, indirectly, is to buy stocks in any major fishing company.

ITQs have been used to settle claims of native peoples to fishing rights, or the right to revenue from fisheries. In New Zealand parts of the annual quota is allocated to the Maori nation, and similar claims exist in Alaska, even for offshore fisheries not directly relevant to native communities. The Alaska Community Development Quota (CDQ) for pollock was created to bring those communities into the fisheries allocation system, allowing them to lease out fishing rights in exchange for revenues. The CDQ program is of particular interest as a variant of rights-based management which explicitly recognizes the special needs of communities as distinct from business firms or individuals.

Alaska adopted an ITQ management system for the halibut and sablefish fisheries in 1995. The relatively tight restrictions on quota trade in these fisheries have possibly diminished the effects, both economic benefits and social costs. ITQ management is an option that should be evaluated carefully, and tailored with appropriate rules to meet the goals. The debate on TAC and ITQ management is ongoing both in Iceland and Alaska, and lessons can be learned from both regions.

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