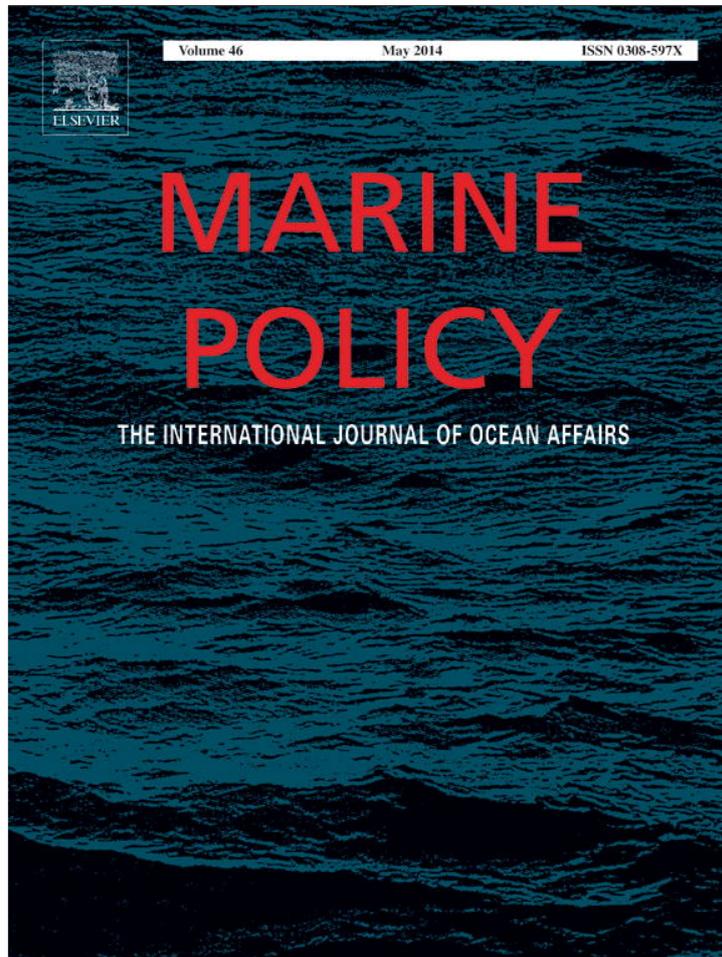


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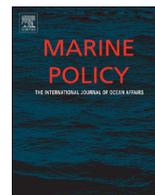
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# National or supranational fisheries sustainability certification schemes? A critical analysis of Norwegian and Icelandic responses



Ingrid Kvalvik<sup>a,\*</sup>, Bjoerg H. Noestvold<sup>a</sup>, James A. Young<sup>b</sup>

<sup>a</sup> Nofima – Norwegian Institute of Food, Fisheries and Aquaculture Research, P.O. Box 6122, N-9291 Tromsø, Norway

<sup>b</sup> University of Stirling, Stirling FK9 4LA, Scotland, UK

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## ABSTRACT

Increased focus on sustainable seafood has created a market and a market demand for third party sustainability certification. The Marine Stewardship Council (MSC) is by far the largest and most well-known. Still some countries have chosen a different strategy to provide documentation of their sustainable fisheries. Despite the apparent similar circumstances of the Norwegian and Icelandic fishing industry they initially chose different paths. While Norwegian actors went with the MSC, Icelandic industry decided to develop their own national sustainability programme where they combined sustainability and country of origin. Explanations for the different strategies are found in apparently small differences in the industries' market position, their response to advocacy groups and reputational considerations, the structure of the industry in Norway and Iceland and in the role of fishery in public policy and national discourses.

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## 1. Introduction

Over the past decade there has been an increased focus on the sustainability of seafood products traded internationally. Despite various governments' efforts to improve fisheries management the biological and economic sustainability of many fisheries remains poor. Some 30% of the world's fisheries resources are currently estimated to be over exploited or depleted [1]. The persistent failure of traditional state-run fisheries management to achieve sustainability has created a burgeoning market for non-state actors in the form of nationally independent sustainability certification programmes. Whilst these schemes vary in the approaches adopted, they share a common goal in attempting to improve the sustainability of fish stocks by manipulation of market demand. As a consequence they have become an increasingly important determinant in shaping the market for seafood, especially in Europe and North America.

Despite the complex and interdependent linkages in international seafood trade significant differences remain between countries in the proliferation of schemes, not to mention variations in the schemes themselves [2]. The Marine Stewardship Council (MSC) is by far the largest and best known, a position which

may appear difficult to usurp. However, just as market dominance may be regarded as a source of strength, so too might it be considered a potential vulnerability, and critiques are rising [3–7]. Smaller national certification schemes like Icelandic Responsible Fisheries (IRF) take a national and less intrusive approach, though with fewer spotlights than their larger multinational competitors. Even though IRF might not be able to improve the world's fisheries substantially, it can serve the Icelandic industry with a competitive and different solution to the demand for third party certification of sustainability.

So far the market entry of sustainability certification schemes has resulted in limited literature discussions about the choices made by the actors in the fishing industry. In an attempt to shed some understanding on this matter this paper provides a comparative analysis of two leading seafood countries, Iceland and Norway, and their choice of sustainability certification schemes. Both countries supply many of the more “sustainability-centric” market segments. Norway adopted MSC as certification scheme for a large portion of their fisheries, while Iceland developed IRF. Within the context of international trading patterns it is useful to examine why these two quite similar and long-established fish exporting nations are choosing different strategies towards certification of sustainability, and have a look at how the choices are fulfilling the industries' needs.

MSC as the dominant actor in the “sustainability market” makes them an “obvious and easy choice”. It is therefore interesting to

\* Corresponding author. Tel.: +47 77629043.

E-mail addresses: [Ingrid.kvalvik@nofima.no](mailto:Ingrid.kvalvik@nofima.no) (I. Kvalvik), [bjorg.nostvold@nofima.no](mailto:bjorg.nostvold@nofima.no) (B.H. Noestvold), [j.a.young@stir.ac.uk](mailto:j.a.young@stir.ac.uk) (J.A. Young).

enquire why Iceland initially did not choose MSC, and how we can explain this difference in strategies towards certification of sustainability in the two countries. In neither Norway nor Iceland, does the criteria for certification of the programs seem to have been an important factor when considering which certification programme would suit the industry best.<sup>1</sup> The paper is therefore a study of policy choices where we try to find explanations of the different strategies of the fishing industry in Norway and Iceland, where other more overarching factors than the criteria of the two programs have been relevant.

In order to gain some insight into the strategies adopted in seemingly very similar circumstances the following methodological approach was adopted. First secondary data detailing the respective schemes were reviewed. These and related literature helped frame research questions for a series of in-depth interviews held with key Norwegian and Icelandic organisational and industrial actors. The sample also included the key informant representatives of the MSC and IRF as the two key certifiers concerned. This ensured a comprehensive coverage within the producer countries and was subsequently extended to incorporate actors' views from some of the key export markets supplied.

## 2. Market based sustainability certification programmes

The sustainability programmes usually contain two elements, the certification of a fishery and a chain of custody (CoC) certification. A certified fishery has been approved by an independent third party, guaranteeing that the fish stock has been harvested in compliance with pre-established sustainability standards. The CoC certification in addition allows the product to be labelled with a consumer facing logo based on verifiable traceability measures. Sustainability certification or eco-labelling therefore represents a strategy to infer that environmental concerns are being incorporated into the value chain. The reasons for certification are however diverse; market demand and question of market access, price premiums, differentiation and company reputation are some.

An argument has also been made that sustainability labels would make it possible for consumers to make an environmental conscious food-choice, a factor voiced mainly by retailers and e-NGOs [8]. The exact nature of any advantage is however difficult to determine. Research has shown that consumers are not very concerned about sustainability of fish and that it is a lesser influence in their purchasing behaviour [9]; neither does the expectation of a price premium seem to be important according to the actors in the industry, even though some certified fish products have been found to carry a price premium at the retail level [10]. A price premium seems however mainly to be applicable for early adopters in the different fisheries. Furthermore, the financial benefits from certification do not appear to be evenly distributed along the value chain [11,12]. Nonetheless, environmental concern and eco-labelled products might be used as a tool for differentiation, though there is a risk that the label might drown in noise from excessive use of other labels [13]. The question of market access however still seems to be an important factor [14], especially with respect to eco-sensitive markets and the increasing demand for third party certification by industrial buyers [12,15]. Finally, the choice to enter a sustainability programme may be considered a moral obligation, or a way to gain positive attention and improve reputation and therefore rational economy for a company [8,16]. Therefore whether certification is a

tool for market promotion, achieving environmental policy objectives, social policy objectives or a combination of the three may be debated [13].

Both the MSC and IRF programmes provide certification of fisheries and chain of custody certification. Each scheme complies with FAO Code of Conduct for Eco-labels [17] and Code of conduct for sustainable fisheries [18]. But whilst the MSC is a global label applicable for any fishery in the world, the IRF is geographically constrained and only applicable for fish from Icelandic waters under the control of Icelandic authorities or internationally controlled fisheries. A short description of the programmes is provided below.

### 2.1. Marine Stewardship Council - MSC

The MSC originated in 1996 through the innovative co-operation of Unilever and WWF, and the MSC evolved to become an autonomous organisation in 1998. The MSC has a global staffing numbering about 125, primarily located in Europe, Asia and America, and an annual budget of about 17 million €, of which 65% comes from what they term "charitable activities" (logo licensing) and 33.5% from charitable grants (trusts and individuals)<sup>2</sup> [19]. Guldbrandsen [20] is a source for more details on the rise and structure of MSC.

The certification is split in two parts, a stock certification and a CoC for companies in the value chain. In order to get certified an independent accredited certifier assesses fisheries and companies against the standard. A certification is valid for 5 years but will be subject to a yearly audit. The MSC programme certifies just over 200 fisheries with a further 100 in the process of assessment [21]. These MSC certified fisheries amount to 8% by volume of all wild caught fish in the world and include more than 50 species and more than 2000 seafood businesses holding CoC certification [19].<sup>3</sup>

The costs of certification vary, depending on the size and complexity of the fishery. A full MSC certification assessment typically ranges from about 7500 € for a simple small fishery to more than 190,000 € for one which is larger and more complex. In addition pre-assessment costs can range from a few thousands € to tens of thousands [12]. Annual audits and other periodic review costs will be incurred. Note that assessment costs are paid to the independent certifier, not to MSC. MSC charges all licence holders an annual fee based on their sales of non-consumer facing and consumer facing certified seafood. They are also charged royalties on all products wearing the MSC logo. In 2013 MSC changed their costs from flat fees to tiered fees. (For details see [www.msc.org](http://www.msc.org) [22]). It must be recognised that the costs incurred may provide benefits from MSC's promotional activities directed at both industrial buyers and consumers.

### 2.2. Icelandic Responsible Fisheries Scheme - IRF

The work to develop a national Icelandic sustainability programme was initiated in 2007. This was based on a discussion among a cross-section of actors in the industry (fishers/boat owners, processors and exporters) that a specific national Icelandic certification scheme would better serve their sustainability claims than a generic international scheme like MSC. The Iceland Responsible Fisheries Foundation was therefore established by the Icelandic industry<sup>4</sup> to operate the Iceland Responsible Fisheries (IRF) labelling programme.

<sup>2</sup> The main contributors are the David and Lucile Packard Foundation, the Robertson Foundation, the Skoll Foundation and the Walton Family foundation [17].

<sup>3</sup> For more information about the MSC programme, see <http://www.msc.org>

<sup>4</sup> The Federation of Icelandic Fishing Vessel Owners, the National Association of Small Boat Owners, and Federation of Icelandic Fish Processing Plants.

<sup>1</sup> Personal communication with industry actors in Norway and Iceland in 2012 and 2013.

The programme consists of two parts, a country of origin label and the sustainability certification. The IRF certification is undertaken by Global Trust Certification Ltd.<sup>5</sup> Until November 2013 when haddock and saithe were approved for certification, only cod was certified and available for CoC certification. Golden redfish is still in assessment. According to IRF they are currently working towards the government for improvement of the quota legislation in order for it to fulfil the IRF certification requirements. Despite the much more constrained geographical membership base more than 100 companies are registered to use the logo of origin. CoC sustainability certification is attained by some 26 Icelandic and four foreign companies [23].

The IRF funding mainly comes from the fishing industry itself through a 0.05% tax levied on certified products exported, supplemented by an initial €600 registration fee. The IRF also receives a grant from the Added Value for Seafood programme (AVS) fund of the Ministry of Fisheries and Agriculture, primarily derived from valorisation of by-catch fish. In addition to the above costs there is an annual audit by Global Trust. This cost depends upon the complexity and number of production units requiring certification but typically falls within a range of €650–750 [24]. IRF sustainability programme is mainly a B2B tool providing necessary documentation of sustainability. The IRF logo of origin can be used for free by registered members as a consumer facing logo on all species, but then without the guarantee of sustainability provided by the Global Trust certification.

### 3. Analytical approaches

As mentioned, the criteria of the programs have not been an important factor in the choice of certification schemes. The reasons might be that the actors are indifferent to the content of the programmes as long as they are accepted by their customers, or because the programmes are considered to be quite similar in standards and requirements, and the one therefore being just as credible as the other.

What then can explain the actors' different responses to demands for documentation of sustainability? In our analysis we found that four different factors are particularly relevant: (i) market mechanisms and position in the market; (ii) advocacy groups and reputational concerns; (iii) the structure of the industry; and (iv) the role of fisheries in public policy and national discourse.

*Market mechanisms and position in the market* can both explain why actors choose to participate in a certification programme or not, and influence on the choice of programme. Possible price premiums could be a motivator, however gaining or retaining market access is essential. An important dimension to consider therefore is the characteristics of the markets the actors are reliant upon. A sustainability label may be mandatory in some markets whilst in others it may not. However, relative importance will change in line with internal pressures such as from eNGOs, promotion from certification providers and conceivably changes in consumers' seafood demands. The question therefore rises whether the Norwegian and Icelandic industries are facing different demands in the market, or alternatively that they perceive the threats of loss of market access differently.

With the exception of some supermarkets, many actors are requiring proof of sustainability or third party certification, but not necessarily MSC. According to the MSC 10% of fish sold on the EU market are MSC certified and it has the greatest market share of all EU countries in Germany, where it is linked with 20% of all seafood

products. In terms of prepacked labelled fish products, Germany and the Netherlands constitute the biggest shares with 60% and 75%, respectively.<sup>6</sup> Elsewhere within the EU markets shares appear to be much lower: 3.3% in the UK and 1.7% in France [25]. These figures highlight the diverse nature of seafood markets and indeed this diversity may also account for some of the variations in uptake found within the same national markets.

Secondly, *advocacy groups and reputational concerns* may explain the decision to enter a certification programme. The costs and benefits of participation in a certification scheme and the norms and reputational concerns are interwoven processes. Still, it is relevant to distinguish between the fear of loss of market access and the fear of reputational damage. Even though the link between reputational damage and the actual effect on industrial and consumer behaviour is not necessarily direct, the fear of bad publicity from eNGOs and other advocacy groups have been shown to have a significant influence on actors' responses to sustainability labelling [26,27]. Retailers have been identified as a convenient, effective and efficient means of reaching a wider public because of their sensitivity to reputational loss and fear of consumer boycotts [8]. Consequently retailers have been eager to demonstrate their compliance with eNGOs' agenda by imposing pressures throughout their supply chains embracing wholesalers, processors and producers.

The Icelandic alternative effectively responds to eNGO demands whilst not necessarily supporting their programmes. Thus there may be actors in the seafood industry granting certification programmes legitimacy [28,29], despite their views that the public management of important fisheries is effective. This raises interesting questions as to the role of advocacy groups in Iceland and Norway and their impact upon certification choice. In particular: have market players supported different solutions?

Thirdly, the *structure of the industry* may explain divergent certification strategies. Company size, degree of vertical integration within the industry, strong industry associations and dependency on export are factors that will influence the path taken. Distribution of costs and benefits among actors in the supply chain will depend on vertical integration and on company size. Large and concentrated companies may be more likely to support third party certification for two reasons: (i) their very size and public presence renders them as easy targets for advocacy groups to launch adverse campaigns and negative publicity; (ii) their size facilitates adoption of certification due to reduced transaction costs associated with economies of scale [29]. However size does not provide immunity from cost considerations, and clearly any perceived differences in the costs of different certification schemes will be important. Experiences from the forest industry have shown that a strong and unified industry might make a collective decision for the whole industry [30]. Finally one might expect actors closest to the market (the exporting and the vertically integrated companies) to be more positive to certification since they are more liable to experience at least the first wave of any adverse encounters.

Both Iceland and Norway are strongly dependent on export to sustainability sensitive markets, i.e. the EU and USA, but have still chosen different paths. Some explanation may therefore be found in the different structure of their industry.

Fourthly, *the role of fisheries in public policy and national discourse* may be expected to vary between countries. Yet in both Norway and Iceland the importance of the seafood industry is widely acknowledged which suggests that there may be more detailed considerations influencing any choice made over sustainability certification.

<sup>5</sup> For more information of the certification programme, see <http://www.responsiblefisheries.is>. For more information on Global Trust, see [www.GTcert.com](http://www.GTcert.com).

<sup>6</sup> Personal communication Camiel Derichs, Deputy Director Europe at MSC, 14 November 2012.

Weak state regulation or low level of legitimacy may be reasons for the industry to seek third party certification [30]. However this seems unlikely to be the case in the Scandinavian countries characterised by strong fisheries regulations. The position of the government regarding third party certification might however be important. If the government favours one particular approach, it would be a very strong signal to the industry. The government may also facilitate a particular solution at a more practical level by providing knowledge, expert advice and financial support in the development and implementation of a particular programme. This raises interesting questions as to the roles of the Norwegian and Icelandic governments in the certification processes. Furthermore, do fisheries have the same importance, gaining the same level of public attention in the public and policy discourses?

#### 4. The case: a choice of certification strategies

As postulated earlier, the strategies adopted by Iceland and Norway present an interesting case of responses to market demands for sustainable seafood. From a geopolitical perspective, the two countries are near neighbours with similar and, in some cases, shared fish stocks. Furthermore, the countries have rather similar administrative systems and resource management regimes, and in both countries there is a tight relationship between the industry and the government. Thirdly, both Iceland and Norway have traditionally relied heavily upon the seafood industry's contributions (first and second most important respectively) to their national economies. Fourthly, both countries compete in similar, and in many cases exactly the same, markets. These similarities would, *a priori*, seem to suggest that any market communications, through product labelling and other channels might tend to be coincident. Still, even though both countries decided to certify (parts of) their fishery, they initially chose different programmes; Norway the global generic MSC, Iceland to develop a discrete national scheme.

##### 4.1. The Norwegian strategy

Norwegian fisheries met a market demand for sustainability certification in the early 2000s. Some early adopters saw the potential certified through MSC and actively used the certification to differentiate, by gaining access to new markets and claiming a price premium [31]. Reportedly the demand for certification was increasing during 2004–2006, primarily facing the exporters and producers. In 2008, a group consisting of industrial actors all along the value chain was established to discuss the challenges facing Norwegian fisheries and to consider a common Norwegian approach.<sup>7</sup> Alternatives discussed were to use an established international certification scheme, i.e. the MSC, or to develop a new, independent national certification programme (preferably in conjunction with the established Norwegian logo of origin “Norge – fish from Norway”). The Ministry of Fisheries and Coastal Affairs was participating as observers in the group, but did not have a stated preference for any approach. The outcome of the process was that the Norwegian industry, through the Norwegian Seafood Council, applied for a MSC certification of saithe in 2008, with herring and mackerel following the next year. The Barents Sea cod

and haddock were certified in 2010, followed by the more coastal fisheries the following years.

The *market mechanisms* and Norwegian seafood's *position in the market* played an important role in the decision. Seafood is Norway's second most important export product (first is oil and gas), with an export value of 6,7 billion € in 2011, of which 2,8 billion € is from marine fisheries. The volume lies around 2.3 million ton. The Norwegian exporters operate closely in the market. In spite of Norway's reputation and acknowledgement in the marketplace for sustainable management, the claim was now that a third-party certification was needed. The industry themselves report that Germany, Switzerland and Belgium threatened not to buy any more seafood before necessary documentation could be provided, preferably a MSC certification. Herring and saithe being sold mostly to these countries the pressure on this part of the industry was eminent. UK then followed with supermarkets stating trust and loyalty to MSC, also pressurizing cod and haddock exporters. Perversely some of these demands emanated from the negative media attention towards the state of the North Sea cod stock, and not the Barents Sea cod mostly provided from Norwegian fisheries. This illustrates that market signals may be quite imprecise, and possibly unintentionally erroneous, in their impact upon the supply chain.

Especially for the Norway's industrial consumers *advocacy groups and reputational concerns* drove the development towards use of the MSC. Interviews with several producers, traders and retailers in relevant markets have revealed that fear of negative e-NGO attention and the on-going campaigns during this period accelerated the use of sustainability certification. Simultaneously, some market actors also recognised the possibility to focus on sustainability to differentiate themselves as environment concerned companies, and thereby building corporate image.

The *structure of the Norwegian industry* is very complex, with several strong independent actors within separate areas of the industry; fisheries of different species, the fishing fleet, the seafood buyers, producers and exporters. Legislation hinders vertical integration, and with a few exceptions like the companies Norway Seafoods and Domstein, no one company have control over the full value chain. Even the two mentioned have to relate to several independent fishermen and their organisations. The industry is also fragmented concerning size of vessels, national distribution and what organisation they claim loyalty towards. The industry is characterised by a strong fishermen association (Norges fiskarlag), fishing vessel associations based on boat size (Fiskebåt, Kystfiskarlaget), the sales organisations (Norges Råfisklag, Surofi, Rogaland fiskesalgslag, Silde-salgslaget), the producers organisation (FHL, NSL and Fifo) and the Norwegian Seafood Council (Sjømatrådet).

The fishing fleet was most reluctant to embrace certification, as they saw it as yet another set of regulations and requirements. The attitude to certification became more favourable, the closer the actors were to the market and also larger, more vertically integrated companies where more positive, albeit not without some dissent.

One grouping of the industry favoured a national approach, developed within the Norwegian logo of origin – “Norge – seafood from Norway”. Their main argument was, and still is, that Norwegian fisheries score higher on the parameters of MSC and that the industry should capitalise this. Furthermore, they argue that one should not make oneself vulnerable to the performance of fisheries and management in other countries. The Norwegian Seafood Council which owns and manages the logo was sceptical about combining third party sustainability requirements with the Norge brand/logo. It was reported that they wanted to continue promoting all Norwegian fisheries, certified or not. The Norwegian Seafood Council were supported by some of the larger industry actors. These companies favoured an international standard, rather than the development of a Norwegian certificate. To them this was a pragmatic solution. Some had already invested in the MSC and did not seem to be very

<sup>7</sup> Members of the group were the Norwegian Fishermen's Sales Organization (representing all the sales organisations), the Norwegian Seafood Council, The Norwegian Coastal Fishermen's Union, The Norwegian Fishermen's Association, The Norwegian Fishing Vessel Owners Association, the Norwegian Fishermen's Sales organisation for pelagic fish, the Norwegian Seafood Association, the Norwegian Seafood Federation, and the Ministry of Fisheries and Coastal Affairs as observer.

interested in incorporating some additional values via the Norge logo. Many companies do not use a brand or logo at all, but are primarily a supplier of raw material and therefore only in need of sufficient documentation of sustainability. To develop a unique Norwegian programme was therefore seen as unnecessary.

Further explanation may also be found in the allocation of certification costs. Stock certification costs were carried by the Norwegian fishermen's sales organisations, even though the Norwegian Seafood Council were listed as owners. The costs for recertification and the ownership of the certificates are now carried by the Norwegian fishermen's association. Thus the costs are redistributed to the collective rather than allocated directly to the individual company. This may mean that some companies contribute to the costs of certification through their collective responsibilities, but may in fact not be reliant upon markets demanding such regulation. The chain of custody certification, however, is borne directly by the individual company.

The role of fisheries in public policy and national discourse in Norway is surprisingly small. Being the insignificant little brother of the oil sector often leaves the impression that the seafood industry is a marginal industry rather than the second largest revenue source of the country. Especially the marine fisheries sector, as opposed to the aquaculture industry, receives little public and media attention.<sup>8</sup> This could give the large industrial actors more influence and also weaken the organisations room for manoeuvring. As previously mentioned the government only participated as an observer in the debate of certification strategy. Today MSC is not mentioned in the government's official site fisheries no. in context with marine fisheries, but ironically mentioned under the aquaculture information.

#### 4.2. The Icelandic strategy

In Iceland, unsurprisingly, rather similar signals were coming from their international markets. Still, the response was different. Here there was a strong desire for more national control and a general reluctance to be subject to the standards and conduct of others. Further, the industry had great belief in the market value of Icelandic origin, and wanted to combine a logo of origin, which they did not have, with a sustainability standard. It was also reported that this preference for a national certification scheme reflected earlier adverse encounters with one of the founding partners of MSC, WWF, in particular through their divergent policies on whaling. The perceived high costs of the MSC was also reported to be important, although it is interesting to note that these would be levied on the same basis as those applicable to Norway. No one mentioned that the content of the programme itself or the criteria for being certified were considered or part of the discussion.

According to the Icelandic actors and some of their buyers, Icelandic fish have a strong position in their most important markets. Seafood is the backbone of the Icelandic economy, EU being their most important market, with an export value of 1.3 billion € in 2011 and the volume is around 1 million ton yearly. Icelandic fish is an established and trusted "brand" and especially in UK Icelandic origin is used as a way of differentiation. International confidence in Icelandic fisheries management is high. Icelandic companies are aware of their stronghold in the market, but still they follow any change closely. *Market demand* played an important role when they decided to develop a logo of origin and a national sustainability scheme. Furthermore, the decision of some export companies to also be MSC certified was for sure a result of

the threat to lose market access both at one specific UK retailer and at some of the more MSC sensitive markets in central Europe.

Ironically it might seem that the pressure from *advocacy groups* like eNGOs motivated the Icelandic industry to go for a national strategy rather than choosing MSC, mainly on the basis that MSC was a WWF "child". Not one Icelandic company mentioned that they had any *reputational concerns* for Icelandic fish being considered unsustainable because they chose not to certify with MSC. As one actor stated "*Icelandic fish was sustainable long before MSC was invented and will be long after it is gone*". By combining origin and reputation through a national certification programme it was felt that net benefits could result and accrue directly to Iceland. Interestingly, Icelandic sources also opined their concerns that embodiment of their reputation within the international generic MSC logo could expose them to criticism and lack of trust because of malpractice of other MSC member countries. In effect MSC was considered analogous to some lowest common denominator and might in turn become a double-edged sword. This makes an opening for competing suppliers to make additional and superior brand claims. Still the perceived high MSC membership costs would be incurred. Operating under a national scheme, the industry considered itself to have greater, more specific, control over bad publicity and also capitalise from the good reputation of Icelandic origin.

As to the *structure of the Icelandic industry*, the government in 1991 adopted new legislation allowing full transfer of quotas between companies. This caused a major change in the structure of the Icelandic industry and the majority of resources are now concentrated in a few big vertically integrated companies. In Iceland as in Norway there are strong organisations, though not so fragmented in Iceland with organisations based on vessel size (Landssamband Smábátenda and Lanssamband Íslenskra Útvegsmanna) and for the fish processing plants (Samtök Fikvinnslustöðva) and the Icelandic Seamen's Federation (Sjómanna samband Íslands).

The fact that the Icelandic industry is dominated by vertically integrated companies should induce a greater unity in responses along the supply chain from the fishing vessel to the export office. This might also be why it was possible to establish a national strategy supported by most of the industry. To ignore (at least for some time) a large, multinational, eNGO supported option like MSC takes unity, strength and market trust. It also seems that the companies that in the end saw it necessary to also be MSC certified were mainly export companies with clients demanding MSC. Whilst some debate may be had over the reality of such claims, the first export company applied for MSC certification for cod in 2010 and this pattern of incremental adoption has been followed with MSC certification of haddock with saithe, redfish and herring under assessment. Currently 56 companies are certified by MSC.

Fisheries are the single most important contributor to Icelandic economy and the influence of this sector in *public policy* and *national discourses* must not be neglected. Even though the governmental role in the decision making process was solely as an observer, the Ministry of Fisheries and Agriculture did provide some funding and are currently fronting the IRF webpage as an information source on Icelandic sustainability [32]. Despite the governmental support of the IRF initiative, the IRF are struggling to get government acknowledgement of the need to improve the quota legislation for saithe, haddock and golden redfish so that it adheres to the certification requirements of the Global Trust. As of today only cod is certified within IRF, and this is proving to inhibit further development of IRF.

#### 5. Explaining the different strategies to certification schemes

It does not seem that one factor alone can explain the different strategies of the Norwegian and Icelandic industries towards

<sup>8</sup> The websites fisheries no. and fisheries show to some degree this difference. In the Norwegian site facts about fisheries, stocks and aquaculture are stated. In the Icelandic site you in addition get information about fisheries significance in Icelandic history, economy and the history of the fisheries themselves.

certification of sustainability. For both countries the demand from important markets and pressure from e-NGO's are two factors explaining the decision to certify. The decisions to go for a generic international and a national programme respectively has however to be explained by other factors.

The different criteria of the two programmes seem not to have influenced the industry's choices. Explanations were therefore sought in factors other than the scientific and technical requirements of the schemes themselves. In Iceland the experience with the WWF and reluctance to be subject to the standards and conduct of others, in combination with a strong belief in the reputation of Icelandic fish, made the industry decide to develop a national sustainability programme also promoting the Icelandic origin. In Norway, on the other hand, e-NGO pressure on both the industry and more severely on their industrial customers led to the opposite result, to apply for MSC certification.

As to decision making, the vertical integration makes Icelandic industry less fragmented and even though the conflict of interest might be just as large as between Norwegian actors, the Icelandic industry is still more concentrated. It will be close to impossible for Norwegian actors to cooperate on this level without governmental influence. An illustration is the rise of the Norwegian Seafood Council, which was established by the Department of fisheries and coastal affairs in 1991 and where the levy for running it is statutory and not based on voluntary contribution [31].

In both countries it is the largest actors that seem to have the final say in the strategy chosen; still the leading actors in Norway and Iceland had different belief in the reputation of their products and different needs in relation to their partly overlapping markets. A critical aspect in Norway was that the Norwegian Seafood Council were reluctant to combine the existing logo of origin with a third party certification programme. It is also interesting to see how governmental interest or lack of such might influence the result directly or indirectly. Financial support in Iceland and the fact that the government publicly supported IRF was important. Further, in Iceland fisheries is the most important income source giving fisheries leverage in governmental affairs and in media that is lacking in Norway, where the same can be said for the petroleum industry. Fisheries contribute to Icelandic national identity in quite a different way than in Norway, and this influences considerations regarding releasing national supremacy by the industry but also in media and by the public. When some exporting companies also certified with MSC it led to downright hostility between some of the actors in the Icelandic industry, proving strong feelings and involvement in the subject.

The future will show the sustainability of the strategy chosen for the national and international actors, none the least for stock preservation. It seems that the Icelandic choice of developing a national programme is still facing some challenges due to the slow change of their management practice for quota adjustments, and the many Icelandic companies also certified with MSC. The matter is not settled in Norway either, some still advocating for a national certification programme. If it leads to both strategies being implemented also in Norway, this might not be the most cost effective strategy, but might still satisfy the preferences of more actors in the industry. Developments in the market, the experiences with the approaches chosen as well as the approaches of other countries will influence future decisions made. Thus sustainability certification is not a definitive decision but an ongoing process.

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## References

- [1] FAO. The state of world fisheries and aquaculture. Rome: F.F.A. Department; 2012.
- [2] Parkes G, Walmsley S, Cambridge T, Trumble R, Clarke S, Lamberts D, et al. Behind the signs—a global review of fish sustainability information schemes. *Rev Fish Sci* 2010;18(4):344–56.
- [3] Bush SR, Toonen H, Oosterveer P, Mol PJ. The “devils triangle” of MSC certification: balancing credibility, accessibility and continuous improvement. *Mar Policy* 2013;37:288–93.
- [4] Froese R, Proelss A. Evaluation and legal assessment of certified seafood. *Mar Policy* 2012;36:1284–9.
- [5] Christian C, Ainley D, Bailey M, Dayton P, Hocevar J, LeVine M. C. Christian, D. Ainley, M. Bailey, P. Dayton, J. Hocevar, M. LeVine, A review of formal objections to Marine Stewardship Council fisheries certifications. *Biol Conserv* 2013;161:10–7.
- [6] Kalfagianni A, Pattberg P. Global fisheries governance beyond the state: unraveling the effectiveness of the Marine Stewardship Council. *J Environ Stud Sci* 2013;3(2):184–93.
- [7] Pérez-Ramírez M, Phillips B, Lluch-Belda D, Lluch-Cota S. Perspectives for implementing fisheries certification in developing countries. *Mar Policy* 2012;36:297–302.
- [8] Cashore B. Legitimacy and the Privatization of Environmental Governance: how Non-State Market-Driven (NSMD) Governance Systems gain rule-making authority. *Governance* 2002;15(4):503–29.
- [9] Potts T, Brennan R, Prita C, Lowrie G. Sustainable seafood and eco-labelling: the marine stewardship council, UK consumers, and fishing industry perspectives. SAMS Report: 270–211. Oban: S.A.F.M. Science; 2011 (p. 78).
- [10] Sogn-Grundtvåg G, Larsen TA, Young JA. The value of line-caught and other attributes: an exploration of price premiums for chilled fish in UK supermarkets. *Mar Policy* 2012;38:41–4.
- [11] UNEP. Certification and sustainable fisheries, in United Nations environmental programme (UNEP). Division of Technology, Industry and Economics; 2009.
- [12] Washington S, Ababouch L. Private standards and certification in fisheries and aquaculture. Current practice and emerging issues. FAO Fisheries and Aquaculture Technical Paper, no 553. Rome: FAO; 2011.
- [13] Potts T, Haward M. International trade, eco-labelling, and sustainable fisheries—recent issues, concepts and practices. *Environ, Deve Sustain* 2007;9(1):91–106.
- [14] Pérez-Ramírez M, Lluch-Cota S, Lasta M. MSC certification in Argentina: stakeholders' perceptions and lessons learned. *Mar Policy* 2012;36:1182–7.
- [15] Unit, T.P.S.C.I.S.. Towards global sustainable fisheries. The opportunity for transition. (<http://www.pcfisu.org/wp-content/uploads/2012/01/ISUMarineprogramme-towards-global-sustainable-fisheries.pdf>); 2012.
- [16] Roheim, C and Sutinen JG., Trade and marketplace measures to promote sustainable fishing practices, in ICTSD natural resources, international trade and sustainable development series iuuse paper. Geneva, Switzerland: International Centre for Trade and Sustainable Development and the High Seas Task Force; 2006.
- [17] FAO. FAO Guidelines for the ecolabelling of fish and fisheries products from marine capture fisheries. Rome: FAO; 2005.
- [18] FAO. FAO Code of Conduct for Responsible Fisheries. Rome: FAO; 1995.
- [19] MSC, Marine Stewardship Council Annual Report 2012/2013. (<http://www.msc.org/documents/msc-brochures/annual-report-archive/annual-report-2012-13-english>); 2013.
- [20] Gulbrandsen L. The emergence and effectiveness of the Marine Stewardship Council. *Mar Policy* 2009;33:654–60.
- [21] (<http://www.msc.org/business-support/key-facts-about-msc>), Key facts about msc; 2013 [downloaded June 3].
- [22] ([http://www.msc.org/documents/logo-use/MSC\\_logo\\_licensing\\_system.doc](http://www.msc.org/documents/logo-use/MSC_logo_licensing_system.doc)), MSC logo licensing system; 2013 [downloaded June 3].
- [23] (<http://www.responsiblefisheries.is/>), Iceland Responsible Fisheries; 2013 [downloaded 30 August].
- [24] Nøstvold B, Kvalvik I, Young J. National Responsible fisheries schemes: an option for the Norwegian fishing industry? A case study of Iceland Responsible Fisheries, in Nofima Report, Tromsø (Norway): Nofima; 2012.
- [25] AMR Marketing Research. in JN494; 1 July 2010 2010.
- [26] Auld G, Gulbrandsen L, McDermott C. Certification Schemes and the impacts on forests and forestry. *Annu Rev Environ Resour* 2008;33:187–211.
- [27] Wilson T. Naked extortion? Environmental NGO's imposing (in)voluntary regulations on consumers and business Jf Oil Palm *Environ* 2012;3:16–29.
- [28] Suchman M. Managing legitimacy: strategic and institutional approaches. *Acad Manag Rev* 1995;20(3):571–610.
- [29] Cashore B, Auld G, Newsom D. Governing through markets: certification and the emergence of non-state authority. New Haven, CT: Yale University Press; 2004.
- [30] Gulbrandsen LH. Explaining different approaches to voluntary standards: a study of forest certification choices in Norway and Sweden. *J Environ Policy Plan* 2005;7(1):43–59.
- [31] Fjelde S, Sogn-Grundtvåg G..Hvorfor kjøper forbrukere miljømerket fisk?, in Matindustrien; 2012.
- [32] (<http://www.fisheries.is/>); 2013 [downloaded June].