Norway and Fisheries Globalisation –
Challenges and Policy Priorities

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ABSTRACT
Norway is probably among the most obvious beneficiaries of globalisation, mainly because of the rich natural resources, skilled labour, advanced technology products and strong institutions. The fishing industry has been on the forefront in adjusting to new challenges and seeking the potential gains of economic integration, liberalisation and deregulation. The international orientation and exposure to fluctuations and rapid change have been key features of the industry for centuries, mainly due to extensive export and trade. Consequently the fishing industry is well accustomed to the drivers and forces of globalisation. The national windfall benefits arising from globalisation do however add further pressure on the fishing industry in terms of continuous efficiency improvements, cost increases and greater competition. Given the limited nature of fisheries resources, regulation is a prerequisite to ensure sustainability, economic rents and national policy objectives. On the other hand the regulatory set-up should take into account the gains which arise from deregulation and greater flexibility, and empower the industry to maintain its competitiveness. Evidently both industry and government are faced with risks and challenges and the key concern is how to cope with these while at the same time reaping the benefits. Within the context of fisheries globalisation issues like global governance and enforcement, IUU-fishing, level playing field, market access, food prices, foreign investments, relocation and fragmentation of production carry great importance. This paper explores the key challenges to the management of fisheries and how they are addressed through Norwegian policy priorities.

Keywords: globalisation, Norway, fisheries management,

INTRODUCTION
Norway as a sea nation is faced with a range of challenges related to globalisation. This paper will give a perspective from a developed country about the dynamic nature of the challenges arising from globalisation.

Definition of globalisation
Globalisation is a joint designation for activities and processes that utilize international comparative differences especially for economic purposes. Trade has been a central economic force since Antiquity. Globalisation implies cultural contact, transfer of skills, downscaling of borders, investments and larger rate of dependence between various countries. Globalisation influences the supply of goods and services, prices and labour conditions. This can lead to economic growth, but on the other hand also greater vulnerability. Supporters of globalisation...
point at economic and political development. Opponents point at pollution, unequal distribution of goods and lack of political control

**Norway as a major beneficiary**

Norway is probably among the most obvious beneficiaries of globalisation, mainly because of the rich natural resources, skilled labour, advanced technology products and strong institutions.

Some of the richest countries in the world are small. Common for small open economies, like Norway, is that they must take the rest of the world for granted, they often have a one-sided resource base and the interior markets are too small for economies of scale. This is indeed the fact for Norway which is rich on oil and fish, and is very dependent on trade. Norway also has a long tradition as a welfare state with a strong focus on equality, strong governmental bodies and a management that take care of elementary goods being distributed among the inhabitants.

**“Historic” globalisation in the Norwegian fishing industry**

Globalisation is not a new issue for the Norwegian fishing industry. Already in year 1000 the Vikings were drying cod, making it possible to fish in the Northern hemisphere for markets in other parts of Europe. And in the 14th century Norwegian dried fish was well-known as south as Italy. The fish was harvested and transported to Bergen, and thereafter sold. This trade was dominated by the members of the Hanseatic League in Germany. Historically fish has been one of the most important export items, and the years after the Napoleon wars fish was the most important Norwegian export item. Already in 1930 the Norwegian coastal fisheries were affected by the crisis in the English fishing industry and society in general, which forced English and other European trawlers to operate closer to the Norwegian coast. Norway being a small, open economy might also have led to an early adjustment to international conditions.

The fishing industry in Norway has been on the forefront in adjusting to new challenges and seeking the potential gains of economic integration, liberalisation and deregulation. The international orientation and exposure to fluctuations and rapid change have been key features of the industry for centuries, mainly due to extensive export and trade. Consequently the fishing industry is well accustomed to the drivers and forces of globalisation.

Still the Norwegian fishing industry is facing challenges as a means of globalisation. Questions to ask is whether these challenges are the same today as thousand years ago, and whether we are better equipped to address these challenges as a result of our long history with globalisation.

**How globalisation adds pressure on the fishing industry**

The national windfall benefits arising from globalisation do however add further pressure on the fishing industry in terms of continuous efficiency improvements and greater competition. Even if Norway is a big contractor in the fishing industry, the demand might change as a consequence of new substitutes entering the market.

General factors such as improved educational opportunities, the emergence of alternative workplaces, the extraction of oil and gas resources and productivity gains in the Norwegian
The economy has contributed to a substantial increase in earnings and welfare in Norwegian society during the post-war era. In the first few decades after the Second World War, the fishing industry was able to keep up with the general productivity growth by increasing fishing activities. But this soon proved a non-sustainable response, since the fisheries soon reached the natural limits for how strong the stocks could be utilized.

Since then, the industry's ability to keep up with earnings and welfare increases in society as a whole has been sustained through technological productivity gains in the fisheries, allowing limited fish resources to be harvested with increasing efficiency. This trend entails structural changes in the fishing fleet and the rest of the fisheries industry, and a necessary consequence has been a decline in the numbers of vessels and fishermen.

**Regulation; objectives and balance (market-based instruments)**

Given the limited nature of fisheries resources, regulation is a prerequisite to ensure sustainability, economic rents and national policy objectives. On the other hand, the regulatory set-up should take into account the gains which arise from deregulation and greater flexibility, and empower the industry to maintain its competitiveness.

In general, management instruments fall into two categories, namely regulatory instruments and economic instruments. In Norway, we use regulatory instruments coupled with strict control measures to ensure sustainability, and draw on economic instruments to enhance efficiency.

So in other words, we set quotas, regulate the catch through different regulatory schemes, and have different control schemes in place to monitor the catch level. This is to ensure sustainability. The second component is allocation and adjusting catch capacity. And through this component it is possible to address other issues like profitability, settlement pattern and fleet structure.

The main goal for management is sustainability. Without sustainable use of the resources, we can not reach the other objectives. One of the main objectives for a broad majority of the politicians in Norway is to maintain settlement and activity along the coast, and the fishing industry has been a key sector to obtain this goal. It has also throughout history been very important for the politicians in Norway to keep a diversified fleet structure with a large portion of small coastal vessels with local ownership. There has in general been political consensus on these management objectives, but different governments have given different priorities to the objectives.

Fisheries management is based on two sets of measures, which differ in aims and modalities: Maintaining fish stock productivity through technical measures and output control, and adjusting catch capacity to stock renewal through access control.

So what are the challenges that we have to deal with as fisheries managers? First, there is an overall economic productivity growth in the society at large, both nationally and internationally. The harvest sector has to increase its productivity in order to compete with other sectors, and the return on capital has to be at least as good as in other sectors. Second, according to FAO, the technological capacity increases with approximately 3% per year. This is mainly due to the development of new and more efficient fish finding equipment, gears and vessels. However, this means that you basically can catch the same amount of fish with fewer
fishermen and fewer vessels. Third, the resources are limited. So we can no longer redirect surplus capacity towards new resources or new fishing grounds. Nor is it to any great extent possible to increase the total production. Last the real prices have been stable.

In Norway, capacity reduction is not a goal on its own. But instruments are necessary in order to facilitate productivity growth and efficiency, achieve better profitability and to improve utilization of current capacity. Capacity adjustment is a continuous process, and with the right set of incentives the industry can adapt without government intervention

Market-like instruments provide these incentives, and ensure an industry-driven capacity adjustment. The market–like instruments applied in Norway build around the idea of voluntary measures, and the instruments are flexible, in the way that they can meet the vessel owner’s individual needs. The principle of user pays – user gains is important, as it gives the vessel owners who utilize the instruments a direct benefit from their initial investment.

In order to balance between the different political objectives, there are some restrictions in place, like a maximum quota size on each vessel, geographically limited markets, transactions only within the vessel groups and a scrapping requirement. The latter is to avoid contributing to worldwide overcapacity by exporting excess capacity.

**CONCERNS, CHALLENGES AND POLICY PRIORITIES**

Evidently both industry and government are faced with risks and challenges, and the key concern is how to cope with these while at the same time reaping the benefits. Within the context of fisheries globalisation issues like global governance and enforcement, IUU-fishing, level playing field, market access, food prices and foreign investments carry great importance.

*Global governance/globalised management*

The management of marine resources has over the last decades evolved from a national concern to a regional and global issue. For national governments this development has generated a greater emphasis on processes and negotiations in various RFMOs, international organisations like the FAO, and bilateral arrangements.

With considerable experience and knowledge about managing marine resources, Norway can play a key role as contractor of premises and contributor to international management of these resources, both globally and regionally. International cooperation in the management of marine resources has become increasingly important as a consequence of the transnational implications related to shared resources and the prevailing challenges of IUU-fishing.

A globalised approach to fisheries management can yield improved solutions and stronger regimes, and thus be beneficial for the marine resources. On the other hand management becomes more complex and demanding.

*Market access*

Norway is a significant actor in the global market for fish. The Norwegian fisheries industry export about 90 per cent of its production. This makes the industry both vulnerable to international markets and dependent on access to those.
Fisheries- and agricultural industry is dependent on having a market access that is as good as our largest competitors in the seafood markets. This is a vital premise to carry out the potential value added.

Globalisation can definitely expand the world's market for fish, and at first glance it is easy to assume that such a development would be embraced by an industry totally depended on export, like the Norwegian fishing industry. But this is in reality indeed a two-edged sword. In an increasingly globalised food market the world prices on fish will have even greater impact on the profitability in the Norwegian fishing fleet. But the downside can be indeed devastating, as new products enter the market and become cheaper substitutes that in the long run can pose a grave challenge to both the demand and price of established products. A stable delivery of fish harvested in a sustainable way is then a cardinal competitive advantage.

Globalisation bring along new challenges to commercial policy, especially linked to market access and trade barriers. How these questions are handled would be crucial for the fishing industry.

The WTO negotiations are the most important arena for working with market access, non-tariff trade barriers and dispute resolution. It is therefore of great importance, in a globalisation perspective, that these negotiations have sufficient progress. In addition, the EFTA-negotiations and other bilateral negotiations are of great importance to secure that Norwegian seafood has as least the same conditions as the competitors.

In addition to having two formal frameworks in place, it is of decisive importance to Norwegian seafood exports that there are good diplomatic relations between us and our trading partners. This is of particular significance when it comes to ensure a fast clarification in the many different issues that emerge.

**Complex stakeholder involvement**

Both the fisheries industry and management have to deal with an increasing number of participants and bodies; these can be both national and international, and they are demanding increasingly more inspection and involvement. Of these you can distinguish between the bodies in which we involve voluntarily and involuntarily. While we voluntarily engage in UN and RFMOs, different consumer organisations and environmental groups are intruding themselves upon us.

In wake of globalisation we find increased production, trade and efficiency improvements. Increased competition can contribute to more freedom of choice and lower prices for the consumers. Based on this, it has grown up an increasing comprehension of the consumers’ responsibility for their consumption. NGOs have in that connection gained larger influence.

National and international environmental organizations, international conventions and agreements together with central bodies like the UN General Assembly, media and consumer interests demand increasingly more inspection and involvement. In the end this can affect marine resource management.
Sustainability is a key word. It is a growing understanding among consumers, purchasers and gradually in the industry itself that increased production must not be of expense of nature’s endurance.

Fisheries management shall manage living marine resources in a sustainable way, and the industry itself has a responsibility to ensure sustainable production. Norwegian management of fisheries and aquaculture holds a good standard and is in agreement with international advice. Norway has an extensive set of rules to ensure sustainability in production. However, this is also a question of communication. One of the reasons for the globalisation process is that communication methods have gone through a revolution the last 20 years. It can therefore take short time to tear down a good reputation by for example causes of disease, and corresponding long time to rebuild a relationship of trust with the consumers. To encounter this, Norway must be transparent and responsible, so having a watch-dog might in fact be positive for the Norwegian government.

In many cases overfished stocks will recover only by a total prohibition. The problem that fisheries managements in many countries are facing, is that protection is perceived, by many interests outside the fisheries industry, as the only possible tool, even where stocks are harvested sustainable or are in good shape.

The Norwegian fisheries management must show that stocks also can be protected while harvesting. The authorities must build confidence in the population and in environmental management about being willing and able to solve challenges dealing with resource exploitation. Without being able to put matters straight when it comes to own challenges and cooperation about solving the fellowship’s challenges, demand and pressure from outside will only increase.

**IUU-fishing**

Illegal, unregistered and unreported fisheries are concrete examples of the challenges that globalisation involve. Unregulated trade combined with lower costs for transportation provides good profit margins, also for those operating illegal. The fact that IUU-fishing activities disregard the legal obligations that usually are associated with fishing might give the operators even lower cost structures, which is a competitive advantage over legal operators.

FAO reports that overall, IUU-fishing accounts for up to 30 per cent of the total catches in some of the main fisheries. Estimates from the Barents Sea show that vital cod stocks were overfished in the amount of around 100,000 tons each year between 2002 and 2005. In 2006 estimates indicate that approximately 77 000 tons of cod, at a first hand value of approximately NOK 1.5 billion, was subject to IUU-fishing. If this information is correct, it implies that in 2006 every 6th cod in the Barents Sea was caught illegally. Figures for 2007 show that overfishing of cod is down to 40,000 tonnes. Progress like this would not have been possible without cooperation with Russia and the European Commission and EU member states.

However, we have not put this fight behind us. This is because there still is overfishing in the Barents Sea, because criminal players find ways to circumvent the new measures and, not least, because they move some of their operations to new areas. The IUU-fisheries is a threat to both the fish stocks and the economic basis for the law-abiding fishermen. IUU-fishing is a
challenge that no country can solve on its own. This is why Norway in cooperation with other nations has achieved quite a lot in finding common solutions to combat the IUU-fisheries

Within The North East Atlantic Fisheries Commission (NEAFC), we have managed to create an entirely new scheme for Port State Control (PSC) for fisheries. This is one of the most important priority areas in the battle against IUU fishing.

We can see a good example on how global the illegal operations are when the co-operation within NEAFC leads to southwards transmission of the illegal landings. NEAFC is exactly an example of political globalisation. The latest years’ experiences have pointed out that the international co-operation has been effective in the fight against illegal fisheries. Maybe the main challenge lies within “globalisation on a political level” in shape of an international co-operation about control?

Foreign employment and foreign investment
A question of interest is if there will be a larger element of foreign ownership in Norwegian fisheries industry. Today there is almost no foreign ownership in Norwegian fisheries sector, and most fishing companies in Norway are family owned. At the same time almost no fishing companies are organized as public limited companies.

Like many other countries Norway has requirements for ownership in the fishing fleet. At least 60 per cent of a fishing vessel must be owned by Norwegian citizens. However in the processing industry there are no regulations and many of the employees are today foreigners. In fact the processing industry is so dependent on foreign labour that you might ask if there would be a processing industry at all in Norway if there were restrictions on foreign labour.

You could also turn this question the other way around and ask if Norwegian fishing companies will expand internationally as a result of new possibilities abroad. Norwegian companies have both capital and competence, and the salmon industry is an example showing that this is possible.

Increased costs will lead to increased prices?
Fuel prices have risen considerably the latest years, and Norway as an oil-producing country is not except from the effects of high fuel prices.

The Norwegian government, however, do very little to counter this. The Norwegian fishing fleet is in principle robust enough to handle high price on fuel, and we could therefore dare to say that higher fuel prices might be a solution rather than a problem. As long as there is a shortage of fuel in the world, we sooner or later will have to readjust. And it is obvious that more expensive fuel will lead to less pressure on the stocks, less pressure on the ecosystem and lower emissions.

We might experience that fisheries with already low profitability will become unprofitable, but what will happen to the fish prices is crucial. The fish prices have until now been relatively stable, but the price on fuel is increasing worldwide, prices on meet and grain are rising and price on fish-oil is all-time-high. It could therefore be reasonable to hope for a rise in fish prices as well.
Climate change

The climate challenge is large, and there is no doubt that the climate on earth is changing. The predictions made by the International Panel on Climate Change indicate that we in the future will face a warmer, wetter and wilder climate.

The climate change might have serious consequences for the fisheries industry, and could turn out differently in the North Sea and in the Barents Sea. New species might enter the Norwegian administrative area, and well-known commercial species can change circulation and localization. The fishing fleet must adjust to the changes in the fish stocks’ diffusion and localization. Maybe in the future climate considerations are crucial for the allocation of quotas and the harvesting possibilities.

Climate change is a global issue which therefore needs global solutions and contractual obligations. Through the Gothenburg-protocol Norway has undertaken commitments to reduce the total emissions of NOx to maximum 156,000 tons within 2010.

To stimulate the reductions the Norwegian Government introduced a NOx-tax per kilo emissions from January 2007. The tax encompasses larger fishing vessels and other vessels. When the Norwegian Parliament discussed the tax, it was decided that enterprises could be except from the tax if they are encompassed by an environmental agreement with the state concerning NOx-reducing measures with clear goals.

In 2008 such agreement was reached. Enterprises that join the agreement also must undertake payments to Norwegian Business NOx-fund, according to the size of the emissions. The fund will give grants to enterprises that implement cost-effective NOx-measures.

The Norwegian Ministry for Fisheries and Coastal Affairs is also working together with representatives from the industry, management and research to identify existing problem areas and draft possible solutions that can contribute to reduced emissions of greenhouse gasses and NOx in the fishing fleet.

The pressure on the ocean is greater as a consequence of an increasing use of the ocean in general. As the ocean is shared among many countries we need both national and global solutions to fight the climate changes.

Capacity to implement and enforce management

As mentioned, international productivity growth and increased competition strengthen the needs for efficiency in the fishing fleet in Norway. This brings along structuring, consolidation and increased integration in the value chain. Some might claim that this development could challenge today's regulation and quota allocation. Will this development force a softening up and liberalisation of the regulation? It might not necessary come out this way. Maybe the best answer to the challenges must be active management and a strengthening of the institutional framework.

It is crucial to have a strong, but flexible framework for fisheries regulations, because this framework is the sum of a country’s possibilities to implement and enforce management. Norway has a strong and flexible framework; however it is of little help to us to have a large capacity if no other countries have the capacity to implement and enforce management. That is why Norway involves in international forum and transfers important discussions to these.
CONCLUSIONS AND FINAL REMARKS

We do not possess the means or the desire to stop or reverse the process of globalisation. Our main point is that while we willingly embrace the positive effects, there are other aspects and risks we need to handle. This is why we need strong institutions and good management. To succeed we also need international cooperation and transparency.

When it comes to management, most countries want to have a certain level playing field. What is important is who sets the standards. Who should we follow? We could choose to follow the worst, which would allow us to give out a lot of subsidies, for example to ease the short term consequences from increased fuel taxes, or to maintain unprofitable fisheries, but this would not be a sustainable solution in the long run. Another solution could also be that the worst reach for the best. That would definitely be the best for the fishing resources.