

Trade Policy Options for Sustainable Oceans and Fisheries

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EXECUTIVE SUMMARY

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1. INTRODUCTION

This note provides a brief summary of the main challenges facing oceans and fisheries, including aquaculture, and outlines trade policy options to address the identified challenges. The note draws heavily on the overview paper (Sumaila et al., 2014), and the think pieces (Asche, 2015; Campling, 2015; and Young, 2015) published by the Ocean and Fisheries E15Initiative Group, and the rich discussions that took place at the three Group meetings held between 2014 and 2015. More complete coverage of the intersection between oceans and fisheries issues and trade policy are provided in these background publications. They describe in detail the current state and major trends in global fisheries and trade in fisheries products; provide a short history of fisheries management; present the environmental and social dimensions of fisheries; and explain how the international community has tried to meet the policy challenges of using and managing oceans and fisheries using both resource management and trade policy tools. The goal in this Group Leader's conclusion's paper is to provide a brief synthesis of the challenges facing oceans, wild fisheries and aquaculture, and offer trade-related policy options for addressing the identified challenges.

The ocean and coastal biomes provide us with food, fuel and biochemical resources, climate regulation and biogeochemical processes such as CO₂ uptake and carbon storage, cultural services (e.g., recreational and spiritual opportunities and aesthetic enjoyment) while supporting other indirect ecosystem services such as nutrient cycling (GOC. 2014; Rogers et. 2014). Achieving healthy oceans has always been difficult, as they are plagued by the problems of overfishing, pollution, and habitat destruction and loss. Global warming, ocean acidification and deoxygenation are new threats, and combined with the former threats, these new issues are creating formidable challenges to this important source of many ecosystem services, especially, with respect to future generations' ability to also enjoy these services. The exploitation of natural resources in and around the ocean can have a significant impact on ocean ecosystems. Since these activities also have an impact on the health of fish stocks, they present an additional dimension to the challenge of sustainable fisheries. The rapid expansion of aquaculture has also raised concerns about its environmental impact.

Trade in fish and fishery products is extensive (Figure 1); many fisheries are exposed to the pressures of international demand and competition for supply. In 2012, 37 percent of fish harvest was exported, as food for human consumption or in non-edible forms (FAO 2014). The European Community, Asia (primarily Japan and China) and the US were among the largest traders of fish (Swartz et al. 2010a).

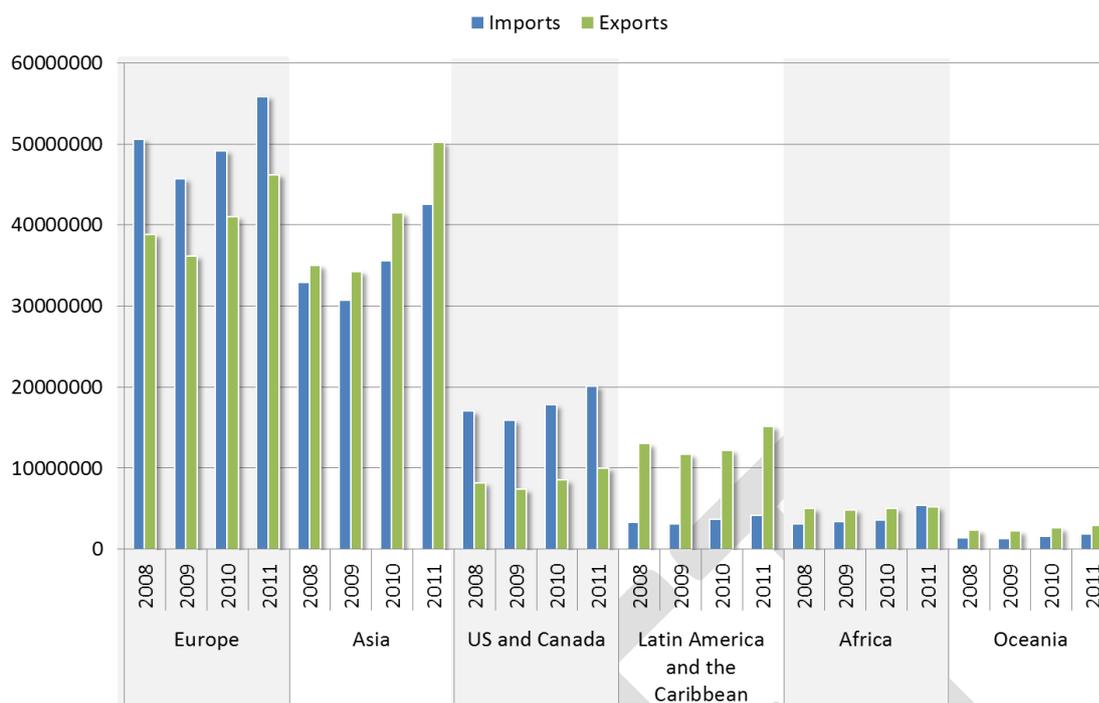


Figure 1. Fishery Trade Flows by Regions (USD '000). Source: FAOSTAT database.

Fish trade is particularly important to developing countries, some of which are major players in the sector as a result of their integration into the global value chains of fisheries production (Young 2011). According to the FAO, in 2012 developing countries accounted for 54 percent of the world's fisheries exports by value, and 60 percent by volume (live weight). While a lot of developing country exports currently go to wealthy countries, South-South trade is likely to become increasingly important in the medium term. Least developed countries (LDCs) and small island developing states (SIDS) are often particularly reliant on exports of fishery products. For some, compensation under agreements granting access to their fishing resources is an important source of national revenue, although this compensation often represents only a small percentage of the value of the resource, and concerns have been raised about the sustainability of the level of fishing taking place.

We describe the main challenges facing ocean and fisheries in the next section. Section 3 is devoted to trade measures that can be used to address the following key trade-related challenges: (i) illegal, unreported and unregulated (IUU) fishing; (ii) fisheries subsidies; and (iii) tariff and non-tariff barriers to market access.

2. CHALLENGES FACING OCEAN AND FISHERIES

Fishing effort targeting *wild fish* stocks increased rapidly following World War II, particularly off Europe, North America, and Japan (Sumaila et al. 2013). The spatial coverage of global fishing effort also rapidly expanded to cover most of the world's oceans by 2005 (Swartz et al. 2010b), with an increase in overall fish catches continuing until 1996, when they peaked at about 86 million tonnes (t). The expansion of the geographic extent of fishing has been accompanied by a ten-fold increase in global fishing effort since 1950 (Figure 2), a figure that rises to 25-fold for Asia over the same period

(Watson et al. 2013). Overall, the decline in global catch per unit effort suggests a decrease in the biomass of many fished populations, likely by over 50 percent (Watson et al. 2013). The reasons for this large increase in fishing effort are many, with ineffective management, technological innovation, and the provision of subsidies chief among them. The expansion of capacity has been such that the World Bank and FAO estimated in 2009 that the total global catch could be achieved with only half of the effort actually employed (World Bank-FAO 2009).

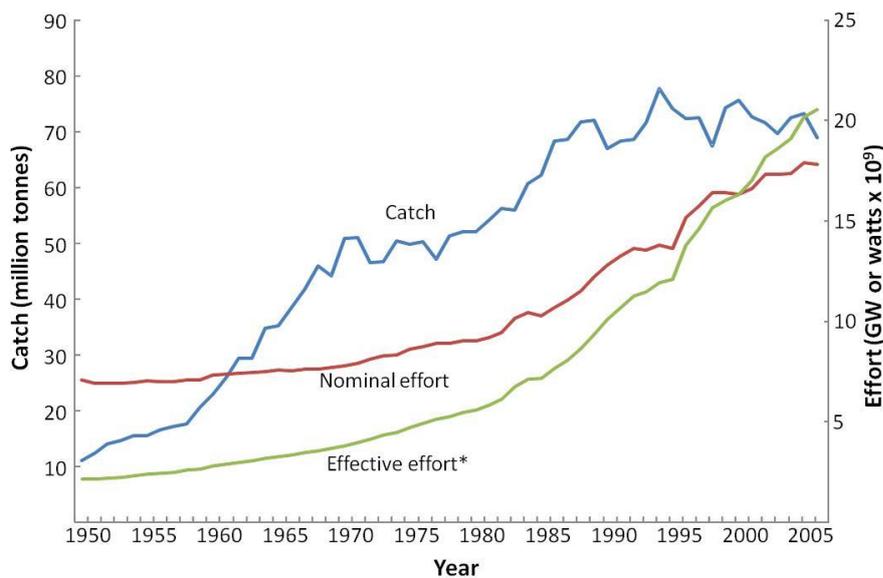


Figure 2. Global trends in est. fisheries catch and fishing effort (nominal and effective) 1950-2006. Source: Watson et al. (2013).

The observed increase in fishing effort and catch has impacted wild fish stocks and their habitats negatively (Pauly et al. 2002; Worm et al. 2009; Halpern et al. 2008). These impacts have significantly affected marine ecosystems and the health of oceans (Halpern et al. 2012; Noon et al. 2013). While the focus in this note is on the relationship between fishing, aquaculture and trade, it is worth noting that there are other human generated impacts on ocean and freshwater ecosystems, including the generation of greenhouse gases that lead to climate change and ocean acidification; pollution from land-based and marine sources; coastal development; shipping; the petro-chemical industry (Noone et al. 2013). An additional dimension to the challenge of sustainable fisheries management is therefore the extent to which other ocean activities impact the health of fish stocks. It is the synergistic effect of these multi-stressors, together with irresponsible fishing and aquaculture practices, that have resulted in the observed negative impacts on freshwater, coastal, and marine ecosystems. Hence, to tackle ecosystem degradation and ensure sustainability, we need a more comprehensive ecosystem approach to governance and policy reforms (Pikitch et al. 2004). We also require considered and cooperative policy responses from the international community in more effective ways than seen before (Sumaila et al. 2011; Miller et al. 2013). The world will need to deploy and use all available approaches and tools, at different scales (local, national, regional and global) via governments, non-governmental organisations, the private sector and individual actions.

The degree of trade exposure of many fisheries suggests that trade policy measures could contribute to this effort. The shift to more sustainable fisheries could integrate the use of trade policy tools, like the proposals provided in this report, with the management and governance of fisheries resources themselves. Trade measures could also help to support important approaches to fisheries management such the precautionary and ecosystem-based management approaches.

FAO reports that in 2012, total global **Aquaculture** production was 66.7 million tonnes, of which Asia alone produced 58.9 million tonnes. The sector has come a long way: **Aquaculture** contributed just 3% of total fish supply in 1970 (Figure 2). According to the FAO by 2014, the world’s fish farms supplied more food fish than wild landings, although total global catch of wild fish is still larger due to non-food uses such as reduction to fishmeal (FAO 2014, Figure 3). It should be noted that these numbers may be skewed in favour of aquaculture because the official statistics as reported by the FAO do not capture the catches of many small scale fisheries around the world (e.g. Zeller et al. 2006). This huge increase in aquaculture production in recent years has its benefits but also its costs. It has helped to fill the gap between growing demand and stagnant wild supply as wild fish catch has peaked. On the other hand, the increases in the production of fish in farms, in certain cases have resulted in severe environmental impacts that have caused concern among experts (e.g. Naylor et al. 2000). Still, the World Bank and FAO project that aquaculture production could increase substantially into the future. In fact, a recent study by the FAO, IFPRI, and the World Bank project that aquaculture production may reach 93.6 million tonnes in 2030, that is, a 50% increase from the production level in 2011. Currently, the aquaculture sector is the only food production system still with growth potential. Some experts, however, have called for caution around the growth expectations for the sector, as growth is not likely to continue at this pace in the long term because of a number of constraints such competition for space and water, problems of disease and environmental issues (e.g., Liu and Sumaila 2008).

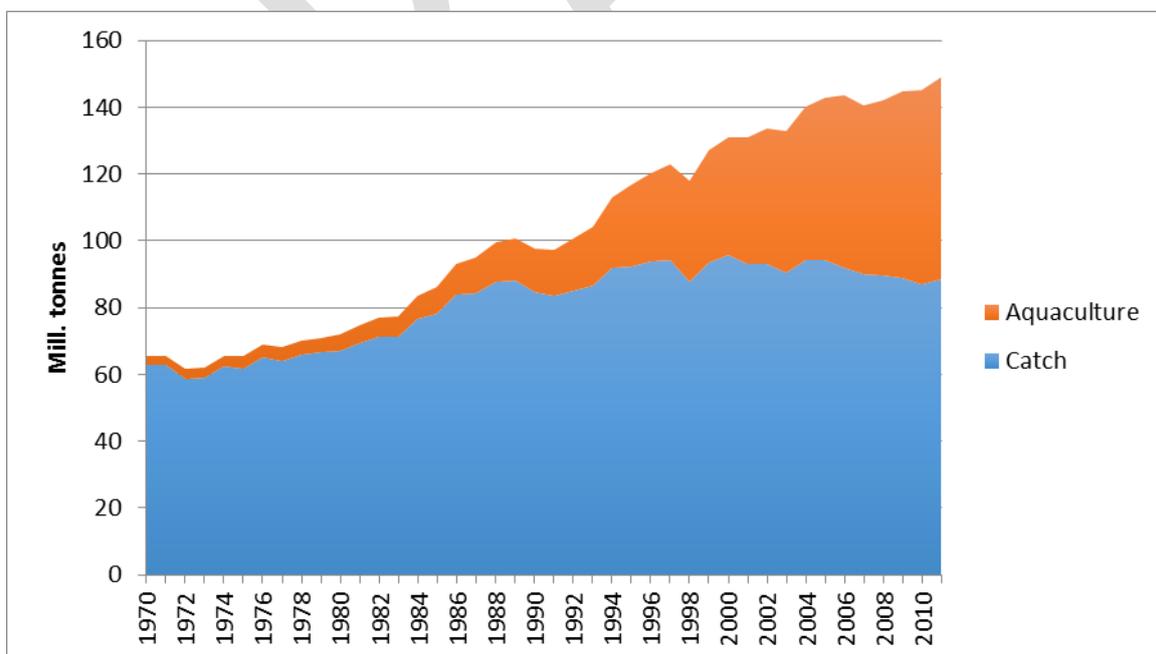


Figure 3. Total global production of Seafood from the wild and aquaculture (Source: FAO 2013)

Given the current concerns regarding the effect of fish farming on the sustainability of wild fish stocks due to the need for fish oil and fish meal; food safety and health issues related to products from fish

farms; and the potential negative impacts on the environment via (i) wastes from cage cultures; (ii) farm escapees and invasive species; and (iii) genetic pollution and disease and parasite transfer; and (iv) habitat modification, it is crucial that coherent policies and measures are put in place to ensure that fish farms are operated in a manner that ensures minimal impacts on wild fish stocks and the environment. In this effort, trade-related policies can play an important role because of the high proportion of fish and fish products from fish farms of species such as shrimps that are traded internationally. Trade-related options around aquaculture include distinguishing between aquaculture and capture production in tariff lines so trade rules could be applied in a more targeted manner to two very different forms of production. More broadly, trade policy should aim to support sustainable aquaculture production as proposed in this paper, given the sector's potential as a major contributor to food security.

2.1 Illegal, unreported and unregulated (IUU) fishing¹

The 'I' (or illegal) in IUU refers to fishing that is conducted by vessels of countries that are party to a fisheries organization but which operate in violation of its rules, or operate in a country's waters without permission, or on the high seas without showing a flag or other markings (FAO 2001). The first 'U' (for unreported) denotes catches that are not reported to the relevant authorities by the fishing vessels or flag state, whether they are parties or not of the relevant fisheries organization. This category includes misreported and underreported catches (FAO 2001). The second 'U' stands for unregulated fishing, which is normally conducted by vessels flying the flag of countries that are not parties of or participants in relevant fisheries organizations and therefore consider themselves not bound by their rules (FAO 2001).

In 2011, the UN General Assembly viewed IUU fishing to be one of the biggest threats to sustaining fish stocks globally (UNGA 2011)². Still, IUU fishing is common in many parts of the world and it is worth noting that it occurs not only in the high seas (Sumaila et al. 2015), but also within exclusive economic zones (EEZs) that are not well-managed (Agnew et al. 2009). IUU fishing is a barrier to the effective management and sustainability of oceans and fisheries (Pitcher et al, 2002, Corveler 2002). It also represents a major loss of potential revenue and wealth for many coastal developing countries. According to the Africa Progress Panel, for example, IUU fishing results in losses of around USD \$1 billion annually in Sub-Saharan Africa (Africa Progress Panel 2014). It is therefore important that IUU fishing is reduced significantly.

Trade-related policy measures have a lot of potential in tackling this problem, and can be targeted to fish and fish products that are landed or imported in a participating country as well as those that are transhipped or traded between participating countries. There is also scope to use measures for fish and fish products that are 'introduced from the sea' (i.e., the high seas) into a country for domestic consumption rather than export: at least for CITES, this is considered to be a form of trade.

¹ IUU fishing is a challenge that affects wild fisheries but not aquaculture. Hence, the discussion here relates to only the former.

² West African sub-region has been identified as an IUU fishing area (38% of catches are estimated to be IUU). The AU-IBAR and NEPAD Policy framework and Reform Strategy endorsed by African Heads of States and Governments is a good platform to combat IUU in Africa.

Unilateral trade measures limiting imports of IUU fish have been successful in reducing the profitability of illegal fishing and in requiring transparency of supply chains (a fact welcomed especially by some Small Island Developing States). While it is important that trade sanctions be severe enough to deter illegal activity (Sumaila et al. 2006), it is equally important that they be designed and implemented so as not to affect legitimate activities (Young 2015). In the case of the EU, the design and implementation of trade bans as the last step in a series of less-trade restrictive measures appears fair, transparent and non-discriminatory. There has been, however, a sense that while bans were imposed country-wide on small supplying countries, transgressions by larger, more complex and opaque supplying markets may have been un-addressed. This risks making small developing countries suspicious of an otherwise good policy.

“Illegal” and “unreported” fish catch is distinct from “unregulated” catch; only the former two categories represent violations of fisheries governance rules.³ However, the legal and economic space for trade in “unregulated” catch appears to be narrowing. The recent advisory opinion issued by the International Tribunal for the Law of the Sea (ITLOS) suggests that flag states have an international legal obligation to exercise due diligence to ensure their vessels fishing in another country’s EEZ are not engaged in IUU fishing.⁴ Trade measures, such as that of the EU, that require catch documentation as a condition of market access essentially require that catch be from a regulated (and documented) fishery. The expansion of similar kinds of unilateral import measures, as suggested below, could gradually reduce the market for unregulated, as well as illegal, fish catch.

Unilateral measures also represent second best options compared to international cooperative actions. By definition they are only as successful as the extent of their enforcement, and the size of the market that adopts them. There is therefore significant potential scope for regional, plurilateral, and multilateral efforts to address IUU fishing with trade-related measures.

2.2 Fisheries subsidies

A subsidy is generally understood to be some type of government support to a given private sector, in this case **wild fisheries** and **aquaculture**. There are currently hardly any studies on the level of government subsidies provided to the **aquaculture sector** globally. One possible indication of the incidence of subsidies to aquaculture is the fact that aquaculture products figure prominently in anti-dumping cases involving seafood, and there is a subsidy element in many of the complaints (Asche 2015). There is a general lack of knowledge about the nature and scope of subsidies to the aquaculture sector that needs to be filled to support the appropriate design of trade-related policy options for the sector.

³ In fact, a part of unreported fishing is not illegal too: Think of subsistence fishers who even though may want to report their catches may end up not doing so due to the lack of institutional capacity.

⁴ Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC Advisory Opinion), Advisory Opinion of Apr. 2, 2015, ITLOS, https://www.itlos.org/fileadmin/itlos/documents/cases/case_no.21/advisory_opinion/C21_AdvOp_02.04.pdf

On the other hand, studies about the nature and scope of subsidies to the **wild fish sector** abound and most of the discussion on this subject over the years has been about subsidies to the wild fish sector (e.g., Milazzo, 1998; OECD, 2006; Munro and Sumaila 2002). Despite the many attempts made at estimating the levels of fishing subsidies, measurement and political difficulties mean data on the actual amounts of subsidies provided by governments to their fishing sectors remains patchy. Improving transparency and finding common definitions of what a subsidy includes, would help to inform reform efforts, and should be a priority policy issue.

Different kinds of subsidies have different effects on the fish stocks targeted by the subsidised industry. Sumaila et al. (2013) identify three different types of subsidies according to the impact they tend to have on fisheries resources:

- i) Subsidies for management, research etc.;
- ii) Capacity-enhancing subsidies, including those for boat construction, renewal and modernisation, fuel subsidies, and fishery development programmes, tend to promote disinvestment in the resource once fishing exceeds the economic optimum;
- iii) Ambiguous subsidies, including those to vessel buy-back programmes and rural fisher community development, can promote or undermine investment in the resource depending on the circumstances.

Total fisheries subsidies was recently estimated at about \$35 billion a year (Sumaila et al. 2013), which is significant since it constitutes between 30 to 40% of the landed values generated by ocean fisheries world-wide. Of these, harmful capacity-enhancing subsidies make up the highest of all the categories, at around USD \$20 billion worth of transfers to fishing fleets in 2009, with fuel subsidies constituting as much as 22% of the total (Figure 4). There is some evidence that subsidies can contribute to the creation of excess fishing capacity, un-sustainable levels of fishing effort and overfishing (Heymans et al. 2011).

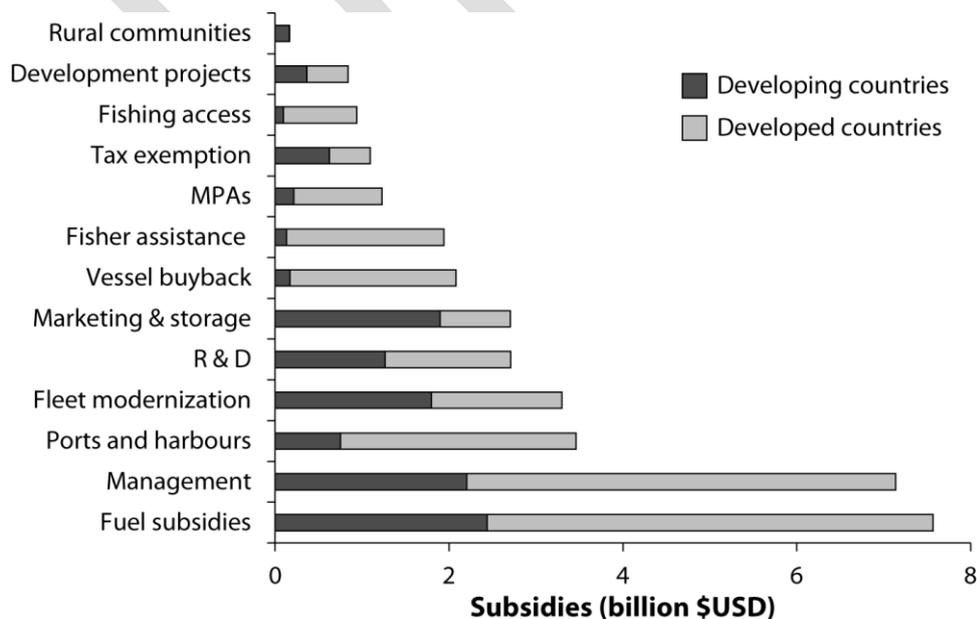


Figure 4. Subsidies by type and by developed and developing country. This shows that fuel subsidy is the greatest (22% of the total), followed by subsidies for management (20% of the total) and ports and harbours (10% of the total). Subsidies contributed by developed countries (65% of the total) are far greater than that contributed by developing countries (35% of the total). Source: Sumaila et al. (2013).

It is important to consider the relationship between subsidies and fisheries management. Although the direct impact of subsidies on a fish stock depends on the health of the fish stock and the strength of management in place, fisheries management is very rarely completely effective, and there is also evidence that subsidies can undermine efforts to manage stocks sustainably (i.e., even with good fisheries management, subsidies can be harmful) (Munro and Sumaila 2002).

Moving from the current pattern of resource use towards more sustainable patterns would require, among other things (e.g., observing scientific biological stock data), reforming subsidies and other economic incentives. Such reforms will need to take into account socio-economic realities. The change will be particularly difficult to address without identifying alternative means of sustenance and livelihoods (e.g., recreational fishing and opportunities outside fishing). The benefits, however, could be substantial. Sustainable management of fisheries resources would help to ensure these livelihoods can continue to be pursued. It could also help to support communities' resilience to the impact of climate change (World Bank 2013).

Members of the WTO agreed in 2001 to negotiate reductions in these subsidies, but after more than ten years, the negotiations remain deadlocked, partly as a result of fundamental disagreements over the respective level of commitments expected from emerging and more advanced economies. Significantly, a group of WTO members are also negotiating plurilateral disciplines on fisheries subsidies within the Trans-Pacific Partnership agreement (Presidential Task Force, 2015).

While we believe that the ideal option is still to have an ambitious, multilateral agreement on subsidies along the lines of the WTO Chair's 2007 text, we present possible ways of building towards ambitious outcomes both within the WTO framework and in other fora.

2.3 Tariffs and non-tariff barriers

Seafood, both from the **wild** and **fish farms**, is a widely traded food commodity, with Asia and Europe as key markets (Figure 1). The coming into force of UNCLOS in 1982, giving coastal and island states control over 200 nautical miles of their coastal water as Exclusive Economic Zones (EEZs). This boosted trade in **wild fish** and fish products as developed countries, suffering stagnating fishery production from their own flagged vessels fishing in other EEZs increasingly relied on imports and on domestic aquaculture to cover their increasing domestic consumption (Swartz et al. 2010a). This largely explains the relatively low levels of tariff protection applied in several developed countries on fish and fish products, compared to agricultural products, with only a few exceptions in the form of tariff peaks on a limited set of sensitive products. At the same time, several countries maintain relatively higher levels of protection on processed fish, often to protect their processing industry and to promote domestic value addition. In developing countries, on the other hand, tariff barriers tend to be slightly higher because of the desire to protect local fisheries sectors (Campling 2015).

From a sustainable development perspective, the question of tariff liberalisation presents a number of policy tensions. The first is balancing the interests of those that would benefit versus those that might lose if tariffs on fish products are lowered. Given the economic, social, cultural significance of the sector in some countries, many fish-exporting nations are pushing for new tariff liberalisation commitments in multilateral and regional negotiations. Removing market access barriers, such as tariff escalation, that lead to higher tariffs on processed products, could help developing countries expand their participation in international trade, adding value to their exports, generating income, and employment.

On the other hand, several developing countries have been concerned that further trade liberalisation might affect the value of trade preferences granted to them through different Generalised System of Preferences (GSP) schemes. This is particularly the case of Africa, Caribbean and the Pacific countries (ACP) that have traditionally benefited from significant preference margins in the EU market under the Lome Convention and the Cotonou Agreement. By removing tariff escalation for ACP countries on certain products, while maintaining it for other trading partners, such preferences have facilitated the development of industrial processing plants such as canning factories or loining plants for tuna in countries such as Fiji, Ghana, Kenya, Ivory Coast, Madagascar, Mauritius, Papua New Guinea, Senegal, the Seychelles, and Solomon Islands (Campling 2008). These preferences have, by and large, been preserved in the EU market, where import-competing industries, notably in Spain, have ensured that canned tuna would be excluded from most EU RTAs. For these countries, removing tariffs across the board on an MFN basis would result in the erosion of their preference margin and might affect the competitiveness of their processing industry. The main policy challenge here is therefore to help preference-dependent countries to adjust to the changing competitive environment.

Another policy tension relates to balancing the increased demand and potential economic gains from liberalisation with the need to limit catch levels to ensure the long-term sustainability of fish stocks. From a sustainability perspective, the relationship between tariff liberalisation and capture fisheries and aquaculture production is ambiguous. Tariff reduction could lower prices for consumers and increase demand for fish products. In the absence of effective management regimes to ensure that production is kept at levels consistent with sustainability objectives, the pressure generated by trade liberalisation could contribute to increased fishing, exacerbating the overexploitation of fish stocks. But these effects are likely to vary depending on domestic fisheries management policies, the method of production (for example, capture vs. aquaculture), and country-specific social, economic, and political factors. If revenue from additional trade was invested in fisheries management, for example, trade could help to support sustainable fisheries development and long-term food security.

A further tariff issue in the fisheries sector is the lack of distinction in tariff and trade statistics between fish produced through wild capture and fish produced by aquaculture.

As tariff barriers to fish products fall through progressive rounds of regional trade agreements and unilateral liberalisation, non-tariff measures are becoming a more significant barrier to market access. These measures, which may be public or private, include standards around food safety, sustainability and legality of production and corresponding labels. Non-tariff measures are often perceived differently depending on whether one is an importer or exporter of fish. In general, importing

countries see these measures as necessary means to protect public health, and there have been cases that seem to support this perspective. However, from the perspectives of exporting countries, non-tariff measures are often seen as a new form of trade barriers.

Eco-labelling is an increasingly important non-tariff measure in fisheries trade. A market-based tool, usually developed by private actors but sometimes (perhaps increasingly) developed by governments, eco-labels make it possible for consumers to choose seafood only from well managed fisheries. In theory this is a useful tool but as always the implementation can be problematic as has been highlighted in some high profile papers (e.g., Jacquet et al. 2010). There is in particular a need to support mutual recognition between standards systems and to support developing country fisheries' access to certification and pre-certification systems, so the use of standards and labels can better support a wider range of sustainable fish production.

3. TRADE-RELATED POLICY OPTIONS

3.1 Pre-requisites for trade-related measures to succeed

We focus on how trade measures related to the issues of subsidies, IUU fishing and barriers to fish trade, both tariff and non-tariff measures, both for wild and farmed fish could be put in place to support sustainable ocean use. To increase the chances of success of trade-related measures, it is important to take an inclusive, transparent and comprehensive approach to addressing the challenges identified. Both public and private rule-making is only going to accelerate, and inter-disciplinary approaches, including the involvement of the private sector, are crucial. Where existing non-trade-related instruments are already in place, the trade measures proposed would serve to complement rather than replace them. In fact, even though trade-related measures can help to address the challenge of sustainable oceans and fisheries use, they have to be part of coherent policy frameworks, including improvements to the management and governance of fisheries resources at all levels.

3.1.1 Inclusiveness

The oceans are interconnected; fish do not respect national boundaries as they swim; and by nature fish trade involves more than one country. Hence sustainable development and long-term use of the oceans' resources is a global concern. This implies that to employ trade-related measures in support of healthy oceans and sustainable fish and fisheries, international collaboration is important. In some cases regional approaches to monitoring and enforcement of fisheries and the trade of fishery products through regional trade agreements (RTAs) may be needed. In others, the economics and politics of an issue like subsidies may mean a coalition of countries willing to work on trade-related measures is needed to create critical mass.

Cooperation of non-state actors (including fishing companies and NGOs), many of whom are already working on many of these issues, is paramount, not only to ensure initiatives are well-grounded in the industry's reality but also for political reasons, as governments, left to their own devices, are not likely to implement policies that are unpopular in the short term. Greater attention is warranted on the obligations of investors in the fishing industry, fish product suppliers and other private actors.

However it is also important to note that there are different kinds of barriers to cooperation between states and between private actors. Barriers to cooperation between states on trade and fisheries issues can include the pursuit of comparative advantage, which might involve free-riding on other states' efforts to reduce trade in IUU fish, or reform subsidies. Barriers to cooperation between private actors can include capacity; transaction costs; and even anti-trust law.

Awareness of the issues, challenges and opportunities related to ocean and fisheries among the general public, stakeholders and policy makers is a basic requirement for the success of any trade-related measures. This broad awareness would translate into political support for political leaders and policy makers to create the environment that would allow trade-related measures to support sustainable oceans and fisheries.

Trade-related measures themselves should be designed to be inclusive. They should be based on generally-agreed principles, whether these are defined multilaterally in the FAO or other treaty bodies such as CITES or regionally in regional fisheries management forums (e.g. CCAMLR) and negotiations on regional or plurilateral trade and investment agreements such as the Trans-Pacific Partnership (TPP). Ensuring participation of all relevant states would result in trade measures that are fairer, more transparent, non-discriminatory, and therefore will not create unnecessary obstacles to trade in both their design and implementation. Indeed, current 'unilateral' attempts to use trade-related measures to address IUU fishing, such as the EU Regulation on IUU Fishing, are distinctive in their efforts to work collaboratively with other states and affected stakeholders. It is also important to include private actors in these endeavours.

3.1.2 Transparency

To achieve international collaboration and joint action, the availability of good quality information is fundamental both in the design of initiatives and in their implementation. It is therefore crucial that there is transparency in information among all parties, as far as possible. This is a difficult and yet a very important basic requirement for the successful implementation of trade-related measures. It underpins the suggestions below around IUU import measures, improving subsidies figures and tariff and trade data around wild capture versus aquaculture fish. It is important to take into account reasons why transparency might not be achieved easily if we are to get movement here. For governments, resistance to transparency could reflect a desire to avoid self-incrimination regarding potentially damaging policies in place (or absent) around subsidisation or IUU fishing. Private actors' resistance to transparency initiatives could reflect, at least in part, a desire to protect commercial confidence business information.

3.1.3 Comprehensiveness

This cross-cutting element is necessary because many of the issues we are grappling with and the trade-related measures identified and analysed herein are both inter-related and inter-connected. For instance, we do not want to permit subsidies that fuel IUU fishing. Similarly, we do not want to institute tariff policies that serve as de facto subsidies. Hence, in developing trade-related policies in general, it is important to have a holistic view of the problems and policy options being proposed to address them. Addressing issues at the intersection of oceans and fisheries health and the trade

system requires a comprehensive approach that takes into account ecological, economic and legal realities as well as existing multi-level governance regimes. In addition to designing measures to take account of these complexities, implementation must take account of local realities in relevant communities.

People make things happen and well trained and equipped people make things happen better. The design and implementation of effective trade-related measures for ocean and fisheries health and sustainability will be greatly improved if accompanied by capacity building.

The rest of this section sets out three core “work packages” of policy options that could help to address the challenges identified above. The policy options recommended under each working package are listed and developed through the identification of (i) current implementation status; (ii) gaps to be filled; (iii) steps that need to be taken; and (iv) parties that need to be involved to get the policy option implemented.

3.2 Work Package 1: Closing international markets for illegal, unreported and unregulated (IUU) fish products

Goal: Progressively close down international trade in IUU fish products, taking into account the implications of adjustment for low-income countries.

Policy Option 1: Build consultative, effective, unilateral import measures, including bans on illegal unreported and unregulated fish catch.

People engage in IUU fishing mainly because it pays economically and it pays economically because there is a market for the illegally caught fish. Therefore, one way to eliminate IUU fishing is to find ways to make it difficult for fish products from IUU fishing to enter the market. This policy option seeks to do just that. The approach proposed herein is currently being applied, notably, by the EU and potentially by the US. While the ideal would be to have a multilateral agreement to address the challenge of IUU fishing, transparent and consultative unilateral trade policy measures can be a useful way forward.

A key gap in the current situation is that the EU’s import policy is limited to one import market. Other major markets for fish products such as those in the US and Japan don’t have similar systems to that of the EU. To make progress, other large seafood markets, particularly the US and Japan could adopt transparent and consultative trade measures that incorporate good aspects of EU’s system, such as those that address IUU fish transshipment and imports and including a ban as a last resort.

Domestic legislation would be required to make this recommendation work. Unilateral measures must include consultation with affected trading partners, and should take a step-wise approach with an import ban as the last step. Even though this action could violate WTO rules on quantitative restrictions or national treatment, it could also be justified under the exceptions in GATT Article XX (e.g. those relating to the conservation of exhaustible natural resource; those that are necessary to protect animal life; and those that are necessary for the protection of public morals) if care is taken in

designing and implementing the measure so that it is not more trade-restrictive than necessary and is not discriminatory.

As a complement to unilateral measures to address imports of illegal fish, countries could implement policies that prosecute domestic importers who violate trade measures. A good example of this is the U.S. Lacey Act, which stipulates that it is unlawful to trade in specimens taken, harvested, transported, sold or exported in violation of underlying laws in a foreign country or in the U.S. Such legislation can draw from and rely on CITES provisions where penalties are shared between country of import and country where violation occurs.

A second gap is that compliance with the import measures by EU's own Member States is not completely effective. Countries implementing unilateral measures should strive to continuously improve them, including by monitoring and providing strong (positive and negative) incentives for compliance by their own nationals. It should be noted that any IUU import measure will depend on fisheries management tools, including Catch Documentation Schemes, IUU vessel lists, and flag state responsibilities. The real impact of any IUU measure will depend on improving the reliability of these underlying marine governance systems.

Effective implementation of unilateral measures in large import markets requires leadership by the relevant countries (e.g. US and Japan), civil society as well as domestic fishing and processing industries. There is also scope for private sector agreements to contribute to this effort, as well as those taken at regional and multilateral levels (see below). Similarly, improving existing unilateral measures will require leadership by governments and the fishing industry. Finally, but critically, unilateral measures need to take account of, and address, the impact of the shift in production required on producers in low-income countries. Aid for Trade or other assistance measured could be used in this regard, for example to help producers meet traceability requirements.

Policy Option 2: Create a network of regional measures, including bans on imports and transshipment, to address IUU fish trade

Unilateral measures, even by very large markets, are only effective to the extent that producers cannot send their product elsewhere. The global nature of fisheries trade means that many producers may be able to sell illegally caught fish in other, less demanding, markets. One way of extending the reach of import measures is to adopt them on a bilateral or regional basis through regional trade agreements. The real novelty with this approach is that it seeks to use regional trade agreements to link unilateral IUU trade measures together, either directly or by establishing platforms that will help countries converge towards best practice.

The EU's import measure is currently the strongest option being implemented. The TPP agreement is another example but it is likely to impose relatively soft obligations on its Parties when it comes to addressing IUU fish trade. A shortcoming of the existing EU import measure and potential system to be applied to TPP parties (an agreement which will include large fish markets like the US and Japan) are that they are not linked in any way, creating the potential for inconsistency. The membership of existing regional agreements currently excludes some large import markets (particularly China). This gap needs to be plugged to make these measures effective.

To address these shortcomings, regional trade agreements could be used to build a cohesive network of regional platforms for IUU measures in several ways: (i) the US-EU Trans-Atlantic Trade and Investment Partnership (TTIP) agreement could include provisions to ensure coherence between the EU IUU system and the evolving US system; (ii) the TPP agreement could establish a platform for TPP Parties to move towards current best practice in import measures (the EU system) or move towards a linked US-EU import system if there was one; and (iii) other large import markets could join the TPP IUU platform, either through accession to the TPP (with market access as the incentive) or through separate adherence to the provisions of the agreement establishing the IUU platform (with political kudos and normative leadership as the incentive).

For progress to be made here, the TTIP Parties (that is, the US, EU) would have to negotiate and approve these provisions, and membership of other large markets (e.g. China) to expand the scope of the TPP platform.

Policy option 3: Develop a system of multilateral instruments (including potential ban) on trade in illegal, unreported fish products

Regional approaches to closing off the market for fish products from IUU fishing could gradually help to change the economics of the activity such that the cost of providing fish to the markets is too high to make the activity worthwhile at a large scale. However, a comprehensive solution to the problem that addresses the needs of all of those involved would be most efficiently negotiated multilaterally. Hence, the call for a system of multilateral instruments here. This idea is new in the sense that it seeks to use regional trade agreements to support the entry into force of other multilateral instruments, and in that it seeks to establish, through the WTO, a code of conduct on illegal trade, which does not appear to have been done before.

Currently, illegal fish trade is addressed in some existing multilateral instruments, but not in the trade system itself. An example is FAO's Port State Measures Agreement (PSMA) addressing landing of illegal fish products, which has not yet come into force because only 11 countries have ratified the measure so far. CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is another good example. Even though CITES has been used to protect several important and vulnerable species, many marine fish species, particularly, bluefin tuna, are not subject to protection.

To make progress in implementing a multilateral approach to trade in IUU fish, the following options could be considered. Regional trade agreements could be used to incentivise ratification, and eventual entry into force, of the PSMA. For example, Parties to the TPP agreement could agree to ratify the PSMA, and to make PSMA ratification a requirement for accession to the agreement. Second, key endangered fish species (e.g. bluefin tuna) should be listed on CITES Annex I or II, with support for industry adjustment in countries affected by the resulting restriction of trade. Third, a multilateral agreement focused on trade in products of IUU fishing could be developed. Key elements of best practice unilateral or regional IUU systems could be captured in a voluntary code on IUU fish imports and transshipment, in the WTO, for WTO members to subscribe to.

The key parties that can help the implementation of these policy options are the TPP, CITES and the WTO. TPP Parties would need to establish this obligation in their agreement while CITES Parties would

need to agree to the listing of more vulnerable marine species. Finally, WTO Members participating in unilateral or regional IUU schemes could lead the development of a voluntary code.

Policy option 4: Support expansion of private sector schemes

It is generally agreed that state-based solutions alone will not be sufficient to address IUU fishing challenges. They will need to be supported and complemented by private sector schemes and actors. Several private sector certification schemes include, or focus on, assessments of the sustainability and legality of fish caught. Some of these schemes already involve comprehensive and reliable traceability systems, which could also be used to ensure the legality of the provenance of fish in the supply chain. Limitations of such schemes include (i) many fisheries, particularly, those in developing countries, are not covered by private sector certification or other schemes; (ii) traceability of fish products, particularly in low-capital fisheries, is very difficult; and (iii) mislabelling of fish products is common.

To improve private sector schemes, certification bodies could require evidence that the catch is from a sustainable fishery and that it is legal. Certification bodies could also work to improve their schemes' accessibility to developing country fisheries. Support for this could come in the form of increasing Aid for Trade (Aft) support for the development of infrastructure to enable traceability and eventual certification of fish products. For successful implementation, all parties, i.e., certification bodies, both public and private, fish buyers and the fishing industry would need to be involved in the process. Private and public fisheries legality and sustainability certification bodies and Aft donor and recipient governments' would need to take the lead to get this policy option implemented.

3.3 Work Package 2: Disciplining fisheries subsidies

Goal: Improve transparency around global fisheries subsidies, and build momentum towards a multilateral agreement on subsidy reform.

Policy Option 5: Strengthen reporting requirements for fisheries subsidies

Improving transparency around fisheries subsidies could stimulate action, not only by revealing the scale of the problem but by providing a solid dataset accepted by the governments who will implement the reform. A solid database would provide a basis for measurement of subsidy reductions or increases, both by governments and civil society. This would underpin transparency and monitoring of unilateral reform efforts, underpin collective reform efforts and enable the tracking of implementation of commitments to reductions. More broadly, there is a need for greater awareness, particularly among developing countries, of the impact of subsidies by trading partners and of how regional approaches to reform could be built based on national practices and priorities.

Currently, WTO members are obliged to notify fisheries subsidies under the SCM Agreement. TPP Parties are also likely to be subject to an additional obligation to notify their fisheries subsidies. The OECD and others maintain databases of notified and estimated subsidy levels while the G20 receives reports on certain subsidies from different inter-governmental organisations (IGOs). But despite the obligation in the WTO, notification of fisheries subsidies is patchy. There are very few sources of independent assessments of real subsidy levels against which to assess notifications, and also no

strong consequences of not fully notifying. Independent (IGO, NGO, academic) databases and reports are helpful, but coverage of countries is limited, and in some cases must rely on academic estimates.

Hence, further support for the development of comprehensive and independent databases of fisheries subsidies (similar to the OECD's work on agricultural subsidies) is needed. Such databases could be used by NGOs and other civil society groups to publish 'parallel' subsidy notifications. WTO Members could be encouraged to file counter-notifications of fisheries subsidies while specific additional notification requirements for fisheries subsidies could be established in the WTO. With these, the WTO Secretariat could reference counter-notifications by governments, or parallel notifications by IGOs or NGOs in Trade Policy Reviews. Committees in the TPP, for instance, could reference parallel or counter-notifications by governments or NGOs in their review of Members' notifications.

The academic, IGO and NGO communities would need to serve as agents of change by continuing to provide independent research and assessment work on fisheries subsidies. WTO Members would need to file the proposed counter-notifications by relying partly on IGO, NGO, and academic research. Finally, TPP Parties would need to provide leadership in the relevant TPP committees, relying on IGO, NGO, and academic research.

Policy Option 6: Core group of countries adopts fisheries subsidies disciplines

It is worth repeating here that the ideal option is still to have an ambitious, multilateral agreement on subsidies along the lines of the WTO Chair's 2007 text. However, given the difficulty in achieving universal subsidies disciplines through the WTO, a possible approach would be for a group of countries, perhaps in partnership with inter-governmental organisations, to move forward with disciplines. A good ongoing example of what we have in mind here is the TPP, which is highly likely to establish disciplines on subsidies to overfished stocks and IUU vessels before a WTO agreement on subsidies disciplines is completed. The key limitation of the plurilateral approached as exemplified by the TPP is that many large subsidisers (EU, China, Chinese Taipei, Russia) are not part of the current group of negotiating parties and therefore agreements reached would not be applicable to them. This means that this policy option, like most of the others proposed in this contribution, would have to be implemented in combination with one or more other options. To reduce the extent of free-riding by governments outside the group, an agreement among a core group of countries to reform harmful subsidies could also be combined with trade rules that specify conditions under which this group of countries would engage in the trade of fish and fish products with countries that are not participating in such an initiative. It should be noted that such an approach would need to be consistent with current WTO rules; a good understanding of what other elements could be included; and what the impact (including the rent distributional impact) of the different disciplines would be on participating countries.

A TPP outcome on fisheries subsidies disciplines could establish the basis for a plurilateral agreement on subsidies, subscribed to by a 'core group' of large subsidisers. This core group could be built through one or more of the following options: (i) accession to TPP (e.g. by China) would require acceptance of the TPP subsidies disciplines in exchange for preferential market access; (ii) the TPP disciplines could also become a 'stand-alone' code that large subsidisers would have political incentives to join; (iii) the US could push to introduce TPP disciplines into the TTIP agreement, thus extending them to the EU;

and (iv) other regional agreements (e.g. ASEAN, the Pacific Alliance, CARICOM) could also adopt the TPP disciplines on a regional basis.

For progress to be made in bringing this policy option to fruition, TPP parties and the US would need to push this in the TTIP, with the support of NGOs and some European countries. Governments that are parties to regional agreements would need to support the proposal while the support of local civil society would be crucial.

Policy Option 7: Establish multilateral disciplines built step-wise and ‘bottom up’ based on a plurilateral deal and negotiation of the remaining ambition gap

Another possible approach would be for a group of countries, perhaps in partnership with inter-governmental organisations, to stimulate collective action with bottom-up voluntary commitments to subsidy reform. Through a process similar to the approach taken in climate change negotiations, each country would declare the amount of harmful subsidies (i.e., capacity enhancing subsidies) they will voluntarily eliminate within a given time period. Based on these voluntary commitments, the group would then negotiate the remaining “ambition gap” between the offers made and the level of overall reductions required at a multilateral level. This kind of initiative can in and of itself stimulate other countries to follow the example of this group. To effectively close the “ambition gap” between the voluntary offers and the level of global reductions required, multilateral participation or at the minimum the participation of the largest subsidizers is needed.

NGOs and other civil society groups could help speed up the uptake of this example by encouraging and prodding countries. To further catalyse action among countries, this approach could be combined with trade rules that specify conditions under which this group of countries would engage in trade of fish and fish products with countries that are not participating in the initiative.

The ‘stepping stone’ of a plurilateral agreement could eventually be multilateralised in the WTO if there were enough large subsidisers involved. There are several options for this, including (i) TPP Parties (and members of a wider ‘core group’) would re-commit in the WTO to agreed subsidy disciplines in the form of a binding agreement to reduce subsidies, the benefits of which would apply to all other countries on a most-favoured-nation basis (like the Information Technology Agreement) or in the form of a voluntary code; (ii) the core group would then negotiate their own phase-out of the remaining important subsidies in the ‘gap’: e.g. subsidies to fuel and construction; and (iii) accession by other WTO Members to the WTO agreement (or code) would require adherence to the basic disciplines agreed by the core group and commitment to phase-out the ‘gap’ subsidies.

The leadership of TPP Parties and a wider core group of major subsidisers would be needed to bring this option to life in the WTO.

Policy Option 8: Establish multilateral disciplines built on areas of agreement in WTO negotiations

As identified in the WTO Rules Chair’s 2011 report on the negotiations, areas of (relatively) more agreement include subsidies to IUU vessels, transfer of vessels and access agreements; there was arguably a level of agreement, at least in principle, with the idea of reforming subsidies that affected

to overfished stocks. Meanwhile, the FAO lists 29% of stocks as overfished. The first-best option – an ambitious multilateral agreement – could be pursued by re-starting the WTO negotiations to focus on these areas of relatively more agreement. For leadership, WTO Members seem to be the most appropriate to move this option forward.

Policy Option 9: Establish multilateral disciplines focused on widely-acknowledged harmful subsidies

Certain subsidies are generally accepted as capacity enhancing. It may therefore be possible for countries to agree to eliminate such subsidies in the interest of healthy oceans and sustainable fisheries. These subsidies could be identified in a number of different ways. The list could focus on the low hanging fruit, i.e., the subsidies whose reform attracted the most support in the WTO negotiations (e.g. subsidies to vessel transfers and to IUU fishing). The list could also focus on the type of vessel involved, for example, gill-netting ships or deep-sea trawlers.

A key limitation here is that WTO negotiations can't agree on what is a harmful subsidy. More progress with this policy option is likely to be made in RTAs such as the TPP. Progress within the WTO could be made by re-starting the WTO negotiations focusing on the subsidies that evidence suggests are most likely to be harmful (construction, fuel) and focus on developing a way to phase them out within a fixed timeframe. Leadership to implementing this policy option would come from WTO members with support from the scientific community on the evidence of harm.

Policy Option 10: Align incentives by focusing international subsidy negotiations on international fish stocks

A key reason for the lack of progress in subsidies negotiations at the WTO, after many years, is that the negotiations suffer what has been described as the “lumpiness” problem (Sumaila 2013). This refers to the requirement that WTO negotiators should aim for an all-inclusive deal or no deal at all. This requirement has limited the ability of the negotiations to make progress by confounding the subsidies issue with other problems. One way to overcome this second problem is to align subsidies policies with national interests by splitting the world's fisheries into domestic (fisheries) that operate within a country's EEZ and target fish stocks that spend all their lives within the EEZ and international fisheries (i.e. fisheries targeting fish stocks that are trans-boundary or highly migratory stocks such as tunas that straddle the EEZs of countries and the high seas or discrete high seas stocks that spend all their lives in the high seas). International negotiations could then prioritise agreement to reform subsidies that affect international fish stocks, and governments would work unilaterally to reform subsidies that affected their domestic fisheries.

A key limitation of this proposal is that issues of small-scale EEZ fishing make global disciplines harder to achieve at the international level. Also, there seems to be no domestic political incentive to address domestic subsidies. The latter problem may be due to the lack of adequate knowledge of the negative impact of overfishing subsidies. That is why transparency is a big part of what is needed to make progress in disciplining subsidies. Importantly, trade measures (e.g., unilateral or multilateral bans on imports) that incentivize countries to manage their domestic fish and fisheries sustainability need to be put in place.

Implementing this policy option could involve the following steps: (i) re-starting the WTO negotiations giving a higher priority to subsidies that affect international stocks (discrete high seas, shared, straddling, highly migratory), then expanding the disciplines to EEZ subsidies; (ii) building evidence around impact of domestic subsidies on domestic fish stocks in key countries; and (iii) lobbying for reform of domestic fishing subsidies.

Key leaders for pushing this option through include domestic civil society actors; national governments; the research community and NGOs; and WTO Members, with support from the FAO.

3.4 Work Package 3: Tariff and Non-tariff measures

Goals: Help preference-dependent countries to adapt to a changing competitive environment by designing tariff and non-tariff measures to support sustainable fishing.

The heterogeneous nature of fisheries production and its ecological and economic variables means that governments will need to work case by case to ensure they understand the impact of tariff liberalisation on the relevant fisheries product trade flows and production.

Policy Option 11: Differentiate between capture and aquaculture fish in the Harmonised System (HS) of tariff codes

Distinguishing between wild-caught and aquaculture fish products in tariff lines would enable better measurement of the changing production structure of global fisheries trade and better traceability of product through the value chain. It might also help policy-makers to address the different environmental impacts of the two production methods.

This proposal is currently being considered in the World Customs Organisation (WCO) but actual implementation is pending a final decision. Governments around the world would have to support this policy for it to be implemented. National customs authorities would have a major role in getting this policy option implemented.

Policy Option 12: Support preference-dependent countries to adapt by (i) negotiating more flexible ROO in preference schemes; and (ii) providing support to reach standards

As preference margins are gradually eroded, preference-dependent producers will need to adjust to the changing competitive environment. More flexible rules of origin for preferential market access could help these producers to diversify their sourcing of input and thus access global value chains of production, giving them more options as their competitiveness changes. Evidence from Papua New Guinea suggests that negotiating more flexible rules of origin under preference schemes and RTAs is a useful adjustment mechanism for preference-dependent producers to deal with falling preference margins.

Few preference agreements allow for global sourcing of inputs. Given the growing impact of RTAs on preferences, more flexible rules of origin arrangements could be negotiated in bilateral or regional agreements. More flexible ROO in preference agreements could be conditioned on fish meeting sustainability and legality requirements in EPAs and preference agreements. However, given the

potential domestic distributional impacts of these changes on the benefits derived by fishing interests from preference allocating states (e.g. the EU); there may be considerable opposition to greater flexibility. Key actors that can help the implementation of this policy option are preference-giving and preference-receiving countries. The International Trade Centre (ITC) could act as a useful link to these two groups of countries.

Another, perhaps complementary element of this policy option could include providing flexibility, at a multilateral level, for preference-dependent countries to provide bridging support, on a strictly temporary basis, to producers to help them adjust to reductions in competitiveness caused by preference erosion, or graduation from preference schemes.

The second element of this option relates to helping preference-dependent countries to adapt to changing competitive conditions by producing to sustainability standards. As the competitive advantage offered by tariff preferences falls in major markets with the growing network of RTAs, public and private standards are likely to become the main market access constraint for fish products from preference-dependent countries (Washington and Ababouch 2011). Smaller producers, those in poorer countries or with less access to capital, and those in fragmented industries are at a relative disadvantage when it comes to meeting public and private standards in export markets. Given the contribution of fisheries trade to employment and income in developing countries, an inclusive approach that helps producers to move towards certification is essential.

Financial, technical and institutional support from home governments, donors and (where appropriate) lead firms such as big brands and retailers is necessary to spread the costs (and therefore spread the approach) required to comply with standards, especially for smaller producers. Aid for Trade, ITC, and WTO technical assistance could be provided to help countries (especially, LDCs) meet set standards. Also, 'preference-giving' countries could re-orient AfT or tariff revenue to support this policy option.

There is a particular leadership role here for the private sector, which has led a lot of the work on sustainability standards. Private actors are well-placed to both improve access to existing certification schemes (as the Marine Stewardship Council is doing) and to help producers and retailers to work towards bridging the gap between production realities and retailers' sourcing requirements (as done, for example, in Fishery Improvement Projects).

Policy Option 13: Ensure coherence between private standards and TBT Standards Code

Technical regulations, including those around labelling, and standards established by governments of WTO Members are subject to the provisions of the SPS and TBT Agreements. Private standardisation and labelling schemes or other commitments of private actors in the fishing industry, including investors, should be a part of the effort to ensure healthy oceans and sustainable fisheries and aquaculture production through time.

Although private standards and labels are not formally covered by the provisions of these agreements, non-government standard-setting bodies can, and should be encouraged to, adhere to the TBT Agreement's Code of Good Practice for the Preparation, Adoption and Application of Standards. In

order to harness both their economic power to shape production patterns, and ensure they are inclusive, these schemes could be encouraged to follow some of the basic principles underlying the global trading system: transparency, non-discrimination and non-trade restrictiveness, while preserving their effectiveness as incentives for sustainable production.

Multilateral standards platforms, like those run by the United Nations Forum on Sustainability Standards (UNFSS) and ITC could prioritise focus on fisheries product standards. Leadership for pushing this proposal forward would have to come from private sector standard-setters and certification bodies. UNFSS and ITC Secretariats also have a leadership role here.

Policy Option 14: Link mutual recognition systems for standards applicable to fish products

The first point to note is that national SPS and TBT systems vary and are applied inconsistently, which creates uncertainty in the policy environment. The so-called “mega-regional” trade agreements currently under negotiation between the EU and US (TTIP) and members of the TPP are likely to be significant both in terms of size and depth. Together, these two agreements will not only lower market access barriers but establish new rules covering behind-the-border measures affecting around one half of total global trade. While the agreements are not likely to seek to harmonise the Parties’ own technical regulations and standards, they may establish mutual recognition for some technical testing and conformity assessment processes.

Mutual recognition between large markets can exclude other producers and reduce their competitiveness, even if their countries’ system meets the standard. In order to ensure that these systems are inclusive and contribute to facilitating rather than fragmenting the global trade system, the Parties could consider including a linking mechanism, by which other trading partners who are outside the agreement but whose systems also enjoy mutual recognition with one or other of the Parties’ standards, could benefit from the agreement’s wider mutual recognition provisions. In other words, large regional trade agreements’ mutual recognition systems should allow non-Parties to achieve mutual recognition and market access for their products provided their testing systems are recognised as meeting the required standard by any one of the parties to the RTA. This could help change the cost-benefit equation for producers who do not play by the provisions.

This ‘linking’ provision could be included in the text of either the TPP or the TTIP agreements, with appropriate supportive provisions to help key trading partners (particularly low-income countries) to bring their testing and conformity assessment systems up to a standard at which they could be recognised by the broader system. In terms of leadership, the TPP and TTIP Parties are well positioned to lead in implementing this policy option.

4. CONCLUSION: NEXT STEPS AND PRIORITIES

Various **wild fisheries** and **aquaculture** management and governance institutions have been established to support the sustainability of oceans and fisheries. However, the prioritisation of short-term gains, the lack of precautionary and ecosystem-based management, and the weakness of enforcement mechanisms have impeded progress towards sustainable management of fisheries. The erosion of the resource undermines communities' long-term interests, including food security, employment, and income.

Priority trade-based issues include the reform of subsidies and the restriction of the global market to sustainable and legal products. Unilateral approaches, including trade bans, could be helpful, especially in the short term, but should be fair, transparent, reasonable and proportionate in their implementation. Multilateral approaches are more likely to be long-term solutions. These issues could also be tackled together. A sectoral agreement on sustainable fisheries and trade could address a number of different aspects of fisheries trade; including tariffs, rules regarding non-tariff barriers, IUU fishing, fisheries subsidies, Aid for Trade and other development finance options that might help to catalyse agreement and action. Such a sectoral initiative could be developed either within the WTO as a plurilateral agreement or in the context of regional agreements including the so-called mega-regionals.

The following table list policy options under each work package above in terms of their potential for short-term, medium-term, or long-term implementation.

Table 2: Time scales for implanting policy options under each Work Package by number

	Closing the international market for IUU fish	Reforming harmful subsidies	Tariff and non-tariff measures
Short term	Policy options 1 & 4	Policy options 5 & 6	Policy options 11 & 12
Medium term	Policy option 2	Policy options 8 & 9	Policy option 13
Long term	Policy option 3	Policy option 7 & 10	Policy option 14

We have proposed a total of 14 trade policy options, both new and not so new, that if implemented would, together with non-trade measures, help ensure that oceans and fisheries are sustainably used and managed for the benefit of both present and future generations.

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