



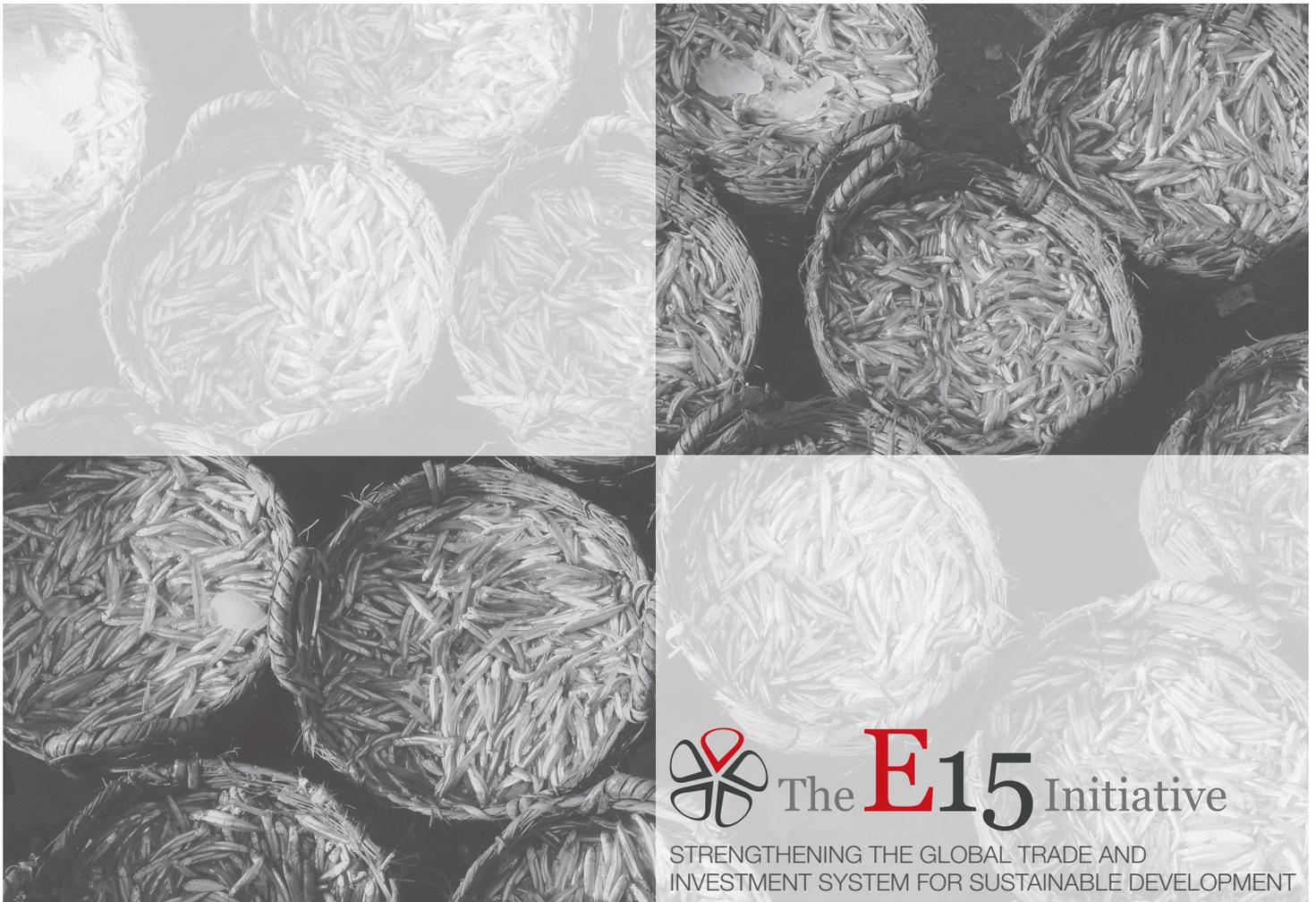
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Trade Policy Options for Sustainable Oceans and Fisheries

Policy Options Paper



Acknowledgements

With the support of



Schweizerische Eidgenossenschaft
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Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

Canada

And ICTSD's Core and Thematic Donors:



Government of the Netherlands



Published by

International Centre for Trade and Sustainable Development (ICTSD)

7 Chemin de Balexert, 1219 Geneva, Switzerland

Tel: +41 22 917 8492 – E-mail: ictsd@ictsd.ch – Website: www.ictsd.org

Publisher and Chief Executive: Ricardo Meléndez-Ortiz

World Economic Forum

91-93 route de la Capite, 1223 Cologny/Geneva, Switzerland

Tel: +41 22 869 1212 – E-mail: contact@weforum.org –

Website: www.weforum.org

Co-Publisher and Managing Director: Richard Samans

Citation: Sumaila, U. Rashid. 2016. *Trade Policy Options for Sustainable Oceans and Fisheries*. E15 Expert Group on Oceans, Fisheries and the Trade System – Policy Options Paper. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.

Trade Policy Options for Sustainable Oceans and Fisheries

U. Rashid Sumaila

on behalf of the E15 Expert Group on Oceans, Fisheries and the Trade System

January 2016

Note

The policy options paper is the result of a collective process involving all members of the E15 Expert Group on Oceans, Fisheries and the Trade System. It draws on the active engagement of these eminent experts in discussions over multiple meetings as well as an overview paper and think pieces commissioned by the E15 Initiative and authored by group members. U. Rashid Sumaila was the author of the report. While a serious attempt has been made on the part of the author to take the perspectives of all group members into account, it has not been possible to do justice to the variety of views. The policy recommendations should therefore not be considered to represent full consensus and remain the responsibility of the author. The list of group members and E15 papers are referenced.

The full volume of policy options papers covering all topics examined by the E15 Initiative, jointly published by ICTSD and the World Economic Forum, is complemented with a monograph that consolidates the options into overarching recommendations for the international trade and investment system for the next decade.

The E15 Initiative is managed by Marie Chamay, E15 Senior Manager at ICTSD, in collaboration with Sean Doherty, Head, International Trade & Investment at the World Economic Forum. The E15 Editor is Fabrice Lehmann.

E15 Initiative

Jointly implemented by the International Centre for Trade and Sustainable Development (ICTSD) and the World Economic Forum, the E15 Initiative was established to convene world-class experts and institutions to generate a credible and comprehensive set of policy options for the evolution of the global trade and investment system to 2025. In collaboration with 16 knowledge partners, the E15 Initiative brought together more than 375 leading international experts in over 80 interactive dialogues grouped into 18 themes between 2012-2015. Over 130 overview papers and think pieces were commissioned and published in the process. In a fast-changing international environment in which the ability of the global trade and investment system to respond to new dynamics and emerging challenges is being tested, the E15 Initiative was designed to stimulate a fresh and strategic look at the opportunities to improve the system's effectiveness and advance sustainable development. The second phase of the E15 Initiative in 2016-17 will see direct engagement with policy-makers and other stakeholders to consider the implementation of E15 policy recommendations.

E15 Initiative Themes

- Agriculture and Food Security
- Clean Energy Technologies
- Climate Change
- Competition Policy
- Digital Economy
- Extractive Industries*
- Finance and Development
- Fisheries and Oceans
- Functioning of the WTO
- Global Trade and Investment Architecture*
- Global Value Chains
- Industrial Policy
- Innovation
- Investment Policy
- Regional Trade Agreements
- Regulatory Coherence
- Services
- Subsidies

* Policy options to be released in late 2016

For more information on the E15 Initiative:

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Abstract

With 37% of fish harvest exported as food for human consumption or in non-edible forms, trade policies and measures constitute an essential part of the overall policy framework needed to support sustainable environmental and human development priorities connected to oceans and fisheries. The Ocean is a vital component of the earth's system and contributor to the well-being of human society. Ensuring ocean sustainability has become a global challenge, as unsustainable practices threaten marine biodiversity, fish stocks, food security and livelihoods. The objective of the paper is to provide fresh thinking on the key challenges facing the world's oceans and fisheries and identify policy options and reform opportunities for the global trade system to support a transition towards sustainable fisheries and healthier oceans. The policy options are structured under three work packages: closing

the market for illegal, unreported, and unregulated (IUU) fishing; disciplining fisheries subsidies; and addressing tariff and non-tariff measures. In the IUU and subsidies work packages the aim is to ensure that trade does not undermine the environment. The main objective of the third package is to ensure that international markets function effectively and that they enable developing country producers to build sustainable fisheries and move up the value chain. While there is a preference for multilateral approaches, the paper proposes options that may compromise on multilateralism in the short term in order to facilitate the building of broader solutions in the system in the longer term. The three work packages nevertheless provide an innovative and inclusive agenda for domestic reform and international cooperation geared toward securing sustainable oceans and fisheries worldwide.

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Abbreviations	
ACP	Africa, Caribbean, and the Pacific Group of States
AfT	Aid for Trade
ASCM	Agreement on Subsidies and Countervailing Measures
ASEAN	Association of Southeast Asian Nations
AU-IBAR	Inter-African Bureau for Animal Resources
CARICOM	Caribbean Community and Common Market
CITES	Convention on International Trade and Endangered Species
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
ECOWAS	Economic Commission of West African States
EEZ	exclusive economic zone
FAO	Food and Agriculture Organization
FIP	fishery improvement project
G20	Group of Twenty major economies
GATT	General Agreement on Tariffs and Trade
GSP	Generalized System of Preferences
HS	Harmonized System
IFPRI	International Food Policy Research Institute
IGO	intergovernmental organization
ITC	International Trade Centre
ITLOS	International Tribunal for the Law of the Sea
IUU	illegal, unreported, and unregulated
LDC	least developed country
MEA	multilateral environmental agreement
MFN	most favoured nation
MSC	Marine Stewardship Council
NEPAD	The New Partnership for Africa's Development
NGO	non-governmental organization
OECD	Organisation for Economic Co-Operation and Development
PPM	process and production method
PSMA	Port State Measures Agreement
REC	Regional Economic Community
RFMO	regional fisheries management organization
ROO	rules of origin
RTA	regional trade agreement
SDGs	Sustainable Development Goals
SPS	sanitary and phytosanitary
SRFC	Sub-Regional Fisheries Commission
SSF	small-scale fisheries
TBT	technical barrier to trade
TFTA	Tripartite Free Trade Area
TPP	Trans-Pacific Partnership
TTIP	Transatlantic Trade and Investment Partnership
UNCLOS	United Nations Convention on the Law of the Sea
UNFSS	United Nations Forum on Sustainability Standards
WCO	World Customs Organization
WTO	World Trade Organization

Executive Summary

Trade in fish and fishery products is extensive and shapes global production and consumption patterns. An estimated 37% of fish harvest is exported as food for human consumption or in non-edible forms. Trade policies and measures thus constitute an essential part of the overall policy framework needed to support sustainable environmental and human development priorities connected to oceans and fisheries.

The Ocean is a vital component of the earth's system. It is home to over half of the earth's biodiversity and contributes significantly to the well-being of human society. Oceans provide half the planet's oxygen and fix a quarter of the world's carbon dioxide. Fisheries (marine, freshwater and aquaculture) provide three billion people with up to 15% of the animal protein they consume and generate employment for at least 140 million people worldwide, including some of the most vulnerable. The ability of fisheries to continue to deliver these functions depends on their sustainable use. Ensuring ocean sustainability has become a global challenge, as unsustainable practices threaten marine biodiversity, fish stocks and livelihoods.

To address the role of trade policies, ICTSD, in partnership with the World Economic Forum, convened a group of world experts under the broader E15 Initiative. The objective was to provide fresh thinking on the key challenges facing the world's oceans and fisheries, including aquaculture, and identify policy options and reform opportunities for the global trade system to support a transition toward sustainable fisheries and healthier oceans. These options are structured under three work packages.

Challenges Facing Oceans and Fisheries

Several marine fisheries management and governance institutions have been established to support the sustainability of fisheries at the local, national, regional and global level. While there are examples of success, these attempts have failed to meet the challenge of balancing current and future use of fisheries in many regions due to the prioritization of short-term gains, the lack of precautionary and ecosystem-based management, and the weakness of enforcement mechanisms often leading to stocks being overfished. This undermines the long-term interests of many communities.

Illegal, unreported, and unregulated fishing

Illegal, unreported, and unregulated (IUU) fishing is still common in many parts of the world. The UN General Assembly views IUU fishing as one of the biggest threats to sustaining fish stocks globally. It occurs not only in the high seas but also within exclusive economic zones that are poorly managed. IUU fishing is a barrier to the effective management and sustainability of oceans and fisheries and also represents a major loss of potential revenue and wealth for many coastal developing countries. Trade-related policy measures have great potential to contribute to solving this source of unsustainability in fisheries.

Fisheries subsidies

While reliable and accurate data remains sparse, partly due to a lack of transparency, total fisheries subsidies are estimated to amount to approximately US\$35 billion, which constitutes 30–40% of the landed values generated by wild fisheries worldwide. Capacity-enhancing subsidies, which tend to promote disinvestment in the resource by motivating overcapacity and overfishing, make up the highest share at about US\$20 billion.

Tariffs and non-tariff measures

Tariff and non-tariff measures shape fish processing and trade and are widely employed by countries. From a sustainable development perspective, the question of tariff liberalization presents a number of policy tensions that the policy options aim to reduce. In addition, while tariff barriers to fish products have gradually fallen, non-tariff measures, which include public and private standards, are growing in significance and raise new challenges for developing countries. Although the impact of trade on fisheries will be context-specific, at a global level, trade measures can influence sustainable outcomes as part of a coherent policy framework.

Prerequisites for Trade-Related Measures in Fisheries to Succeed

Inclusiveness and Fairness: The oceans are interconnected. Fish do not respect national boundaries as they swim, and fish trade, by nature, involves more than one country. This implies that to employ trade-related measures in support of healthy oceans and sustainable fisheries, international collaboration that is fair and inclusive is needed.

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. Special effort is needed to improve transparency with respect to fisheries by bringing private sector and public information together in integrated data platforms.

Policy Coherence: This cross-cutting element is necessary because many of the issues to be grappled with and the trade-related measures identified herein are both interrelated and interconnected.

Capacity Building: People make things happen and well-trained and equipped people make things happen better. The design and implementation of effective trade-related measures requires a concerted global effort to train people who can ensure the effective implementation not only of trade measures but also other sustainable development policies.

Trade-Related Policy Options

The paper proposes policy options divided into three work packages: closing the market for IUU fish catch, disciplining fisheries subsidies, and addressing tariff and non-tariff measures. While the IUU and subsidies work packages are aimed at ensuring that trade does not undermine the environment, the main objective of the third package is to ensure that international markets function effectively and that they enable developing country producers to build sustainable fisheries and move up the value chain

Work Package 1: Closing the market for IUU fish catch

The goal is to progressively close down international trade in IUU fish products, taking into account the implications of adjustment for low-income countries. One way to work towards eliminating IUU fishing is to establish means to make it difficult for fish products from IUU fishing to enter the market. **Policy Option 1:** Build consultative, effective and coordinated unilateral import measures; **Policy Option 2:** Create a network of regional measures to address IUU fish trade; **Policy Option 3:** Develop a system of multilateral instruments on trade in IUU fish products; **Policy Option 4:** Support expansion of private sector schemes.

Work Package 2: Disciplining fisheries subsidies

The aim is to improve transparency with respect to global fisheries subsidies and build momentum towards a multilateral agreement on subsidy reform. The very high level of annual capacity-enhancing support advanced to the fisheries sector is a key driver of unsustainability that the options would seek to discipline. **Policy Option 5:** Strengthen reporting requirements for fisheries subsidies; **Policy Option 6:** Core group of countries adopts fisheries subsidies disciplines; **Policy Option 7:** Establish multilateral disciplines built step-wise and bottom-up based on a plurilateral deal and negotiation of the remaining ambition gap; **Policy Option 8:** Establish multilateral disciplines built on areas of agreement in WTO negotiations and those focused on widely-acknowledged capacity-enhancing subsidies; **Policy Option 9:** Align incentives by focusing international subsidy negotiations on international fish stocks.

Work Package 3: Tariffs and non-tariff measures

This package addresses specific issues in international fisheries trade, particularly in relation to developing country producers. Given the heterogeneous nature of fisheries production and its socioeconomic and ecological variables, governments will need to work case-by-case to ensure that they integrate the impact of tariff liberalization in a sustainable manner. **Policy Option 10:** Differentiate between capture and aquaculture fish in the Harmonized System (HS) of tariff codes; **Policy Option 11:** Support preference-dependent countries to adapt by negotiating more flexible rules of origin in preference schemes; **Policy Option 12:** Support preference-dependent countries to adapt by providing assistance to reach standards; **Policy Option 13:** Ensure coherence between private standards and TBT Standards Code; **Policy Option 14:** Link mutual recognition systems for standards applicable to fish products.

Priorities and Next Steps

Priority trade-based policy solutions include the reform of harmful subsidies and efforts to restrict the global fisheries market to sustainable and legal products. While there is a preference for multilateral approaches, the paper proposes options that may compromise on multilateralism in the short term in order to facilitate the building of broader solutions in the system in the longer term. In addition, special effort is needed to improve transparency with respect to fisheries by bringing private sector and public information together in integrated data platforms. This would help inform reform efforts and should be prioritized.

A sectoral trade agreement on sustainable fisheries could address a number of different aspects of fisheries trade, including tariff and non-tariff measures, IUU fishing and fisheries subsidies. Aid for Trade and other development finance tools can be used not only to catalyse agreement and action but also to mitigate the potential negative impacts of these policies on small-scale fisheries. Such a sectoral initiative could be developed either within the WTO as a plurilateral agreement or within the framework of regional trade agreements.

The following table provides an indicative time scale for implementing the policy options under the three work packages. Short-term policy options are those that we estimate could be implemented within one to three years; medium and long-term options are estimated to take between three to five and five to ten years respectively. It is expected that medium to long-term policies would likely have bigger impacts in terms of their effect on the sustainability of fisheries. It should be noted, however, that this categorization reflects a combination of prescriptive and normative assessments of what is feasible.

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

1. Introduction

Healthy oceans and sustainable fisheries are an essential part of sustainable development as they contribute significantly to the well-being of human society. A large proportion of global fish production is traded internationally with trade-related policies playing a critical role in shaping production and consumption patterns. As such, trade policies and measures constitute an essential part of the overall policy framework needed to support sustainable environmental and human development priorities connected to oceans and fisheries.

To address the role of trade policy frameworks in promoting healthier oceans and more sustainable fisheries, the E15Initiative convened a group of leading experts from around the world. The main objective was to provide fresh and evidence-based thinking on the key challenges facing the world's oceans and fisheries and identify policy options and reform opportunities for the global trade system to support a transition toward more sustainable fisheries and healthier oceans.

This paper 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 analysis and recommendations draw heavily on the overview paper (Sumaila et al. 2014) and think pieces (Asche 2015; Campling 2015; and Young 2015) published by the E15 Expert Group as well as discussions that took place during meetings held in 2014 and 2015.

The ocean and coastal biomes provide us with food, fuel and biological resources, climate regulation and biogeochemical processes (e.g. carbon dioxide uptake and carbon storage), and cultural services (e.g. recreational, spiritual and aesthetic enjoyment) while supporting other indirect ecosystem services, such as nutrient cycling (Gattuso et al. 2015). In particular, fish support human well-being through employment in fishing, processing, and retail services (FAO 2014), as well as food and nutritional security for the poor and rich alike (Srinivasan et al. 2010).

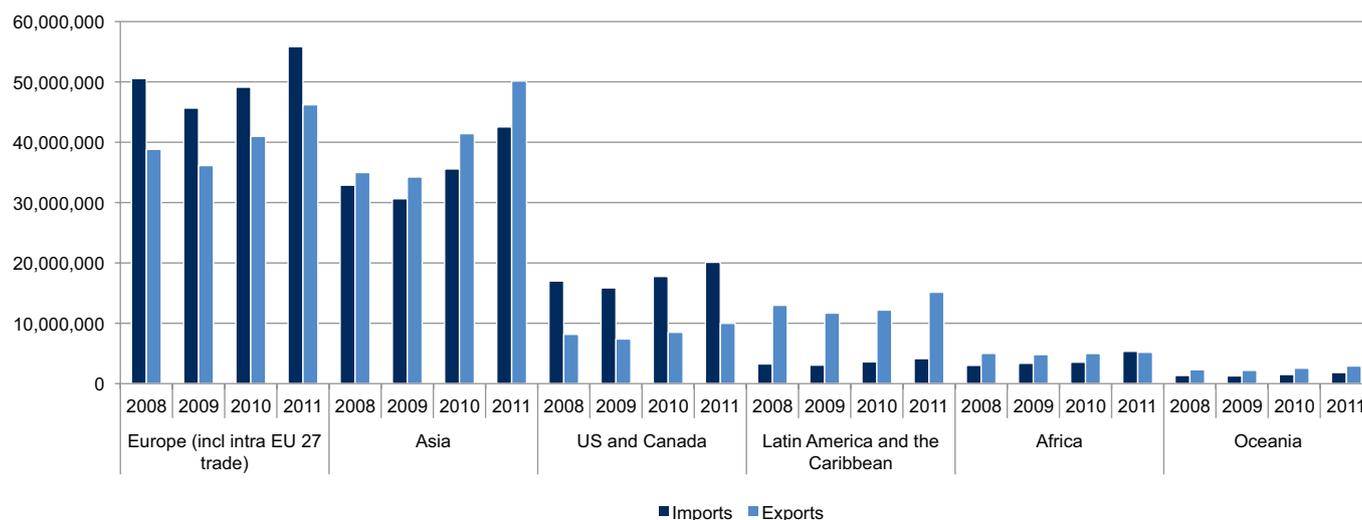
Achieving healthy oceans has proved difficult in the period since after the Second World War, as they suffer from the tragedy of the commons resulting in overfishing, pollution, and habitat destruction. Global warming, ocean acidification and deoxygenation are new threats (Gattuso et al. 2015). Combined with the long-standing threats, these new issues are creating formidable challenges to this important source of ecosystem services, especially with respect to the ability of future generations to enjoy these services.

The rapid expansion of aquaculture has also contributed significantly to the provision of fish protein to many in the world (Asche 2015), especially in Asia where the bulk of the farmed fish are herbivorous. Not surprisingly, this expansion has raised concerns about its environmental impact and highlighted the need to continue ongoing efforts to achieve sustainable aquaculture worldwide (Cao et al. 2015).

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% 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 United States were among the largest traders of fish (Swartz et al. 2010). According to the FAO (2014), in 2012, developing countries accounted for 54% of the world's fisheries exports by value and 60% by volume (live weight). Today, several developing countries are major players in the sector as a result of their integration into the global value chains of fisheries production (Young 2011). These value chains are extremely varied and can be extensive. Improvements in technology and falling transport costs have allowed countries like Thailand and China to specialize in particular segments of the fisheries value chain, for example in importing raw material, processing (or even re-processing), and exporting to third markets (FAO 2014).

Some experts argue that increased international fish trade would benefit development and thus alleviate poverty. Others argue that the export of fish has potentially negative effects on food security and local livelihood options, particularly for poor people (Ruddle 2008). The pro-trade stance argues that the income generated by fish exports in the exporting country can contribute to economic growth (Bostock et al. 2004). Opponents of this view maintain that revenue from fish trade often fails to materialize (Petersen 2003), that export-oriented industry development results in local job loss (Kaczynski and Fluharty 2002), or that the economic gains are captured by elites and do not benefit the national fisheries sector or individuals connected with it (Wilson and Boncoeur 2008). Asche et al. (2015), on the other hand, demonstrate that developing countries, as a group, tend to benefit from trade with developed countries in seafood. Further, Smith et al. (2010) argue that the reasons local populations may not derive benefits from trade are more related to domestic governance issues rather than trade *per se*. Whatever one's position in this debate, the implication is that trade policies need to be designed with the local context in mind and by taking into account their impact on small-scale fisheries, especially in developing countries.

Figure 1: Fishery Trade Flows by Region (2008-11) US\$ '000



Source: FAOSTAT database

Although the impact of trade on fisheries will be context-specific, at a global level, the significant volume of trade in fish and fish products suggests that trade measures can contribute, as part of a coherent policy framework, to sustainable outcomes.

In support of sustainable oceans and fisheries, we provide policy options concerning trade measures to discipline subsidies, reduce illegal, unreported and unregulated (IUU) fishing, and address tariff and non-tariff measures that impact on market access. There are solid justifications for selecting these three areas for analysis. Subsidies to the fishing sector are large relative to the gross revenues the sector generates and it is theoretically established that some fisheries subsidies are detrimental because they stimulate overcapacity and overfishing (Clark et al. 2005). Empirical evidence of these effects is beginning to appear in the literature (e.g. Heymans et al. 2011). IUU fishing is similarly widespread around the world with serious conservation, economic and social consequences (Agnew et al. 2009). In 2011, the UN General Assembly cited IUU fishing as one of the biggest threats to sustaining fish stocks globally (UNGA 2011). Furthermore, the Sustainable Development Goals (SDGs) and Third International Conference on Financing for Development mention illegal fishing and fisheries subsidies as priorities for global action (UN 2014, 2015). It is therefore important that both harmful subsidies and IUU fishing be eliminated, and trade policy measures clearly have a role to play. Tariff and non-tariff measures shape fish processing and trade and are widely employed by countries. From a sustainable development perspective, the question of tariff liberalization presents a number of policy tensions, which we explore below.

Even though the focus of this paper is primarily on industrial fisheries, we recognize that our proposed trade policy options will have both direct and indirect effects on small-scale fisheries (SSF), which need to be taken into account. For example, SSF producers seeking to enter the export market may face the burden of proving the legality of their catch. A similar challenge exists with respect to sanitary and phytosanitary (SPS) regulations, which are seen as a major barrier to some developing country fisheries entering the export market.

Moving from the current pattern of resource use toward more sustainable models will require better fisheries management and a reform of subsidies and economic incentives. Fisheries are a crucial source of employment and income. They are also central to the culture of nations and communities. Reform of the socio-economic aspects of fisheries is thus as important as managing the biology of the relevant ecosystem. The change to more sustainable harvesting will be particularly difficult to achieve without identifying alternative means of sustenance and livelihoods (e.g. recreational fishing and employment opportunities in other sectors). The benefits, however, could be substantial. The sustainable management of fisheries resources would help ensure that these livelihoods can be pursued. It would also help support the resilience of affected communities to the impacts of climate change.

2. New Challenges

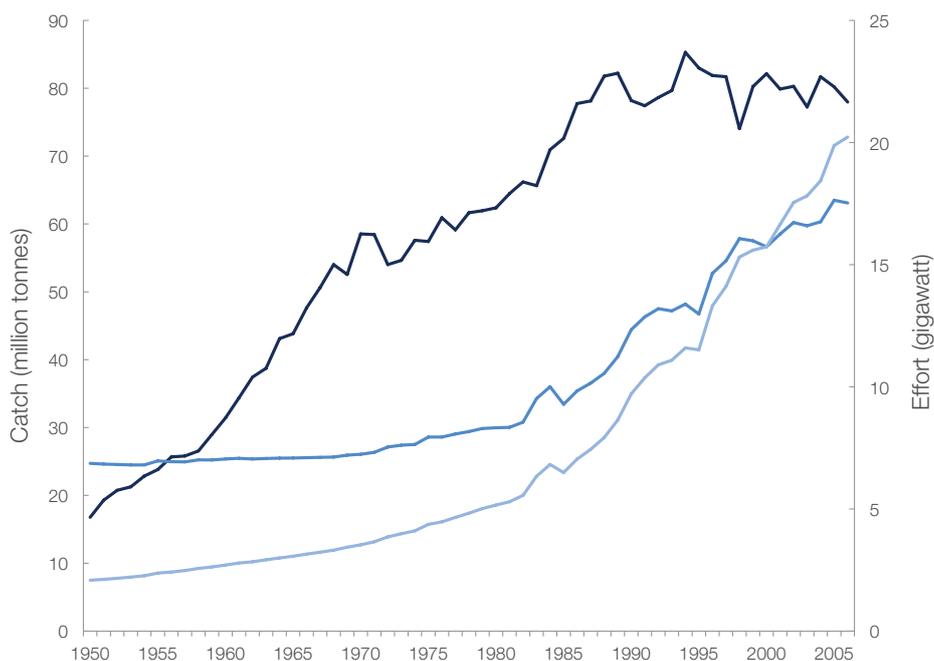
2.1. The Impact of Overfishing on Wild Stocks

Fishing effort targeting *wild fish* stocks increased rapidly following World War II, particularly off the coasts of Europe, North America, and Japan. The spatial coverage of global fishing effort also expanded rapidly to cover most of the world's oceans by 2005 (Swartz et al. 2010), with an increase in overall fish catches continuing until 1996 when they peaked at about 86 million tonnes. The expansion of the geographic extent of fishing has been accompanied by a ten-fold increase in the global fishing effort since 1950 (Figure 2); a figure that rises to 25-fold for Asia over the same period. Overall, the decline in global catch per unit effort suggests a decrease in the biomass of many fished populations, likely by more than 50% (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 the FAO (2009) estimate that the total global catch could be achieved with only half of the effort actually employed.

The observed increase in fishing effort and catch has impacted wild fish stocks and their habitats negatively (Pauly et al. 2002). These impacts have significantly affected marine ecosystems and the health of oceans (Halpern et al. 2012). While the focus in this note is on the relationship between fishing 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 (Gattuso et al. 2015); pollution from land-based and marine sources; coastal development; shipping; and the petro-chemical industry. 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, which have resulted in the observed negative impacts on freshwater, coastal, and marine ecosystems. Hence, to tackle ecosystem degradation and ensure the sustainability of fisheries, we need a more comprehensive ecosystem approach to governance and policy reforms (Pikitch et al. 2004). We also require cooperative policy responses from the international community in more effective ways than seen before (Sumaila et al. 2011). Responses will need to deploy all available approaches and tools at different scales (local, national, regional and global) via governments, non-governmental organizations, 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 instruments (such as the proposals included herein) as a complement to the management and governance of fisheries resources themselves. Trade measures could also help support important approaches to fisheries management, such as precautionary and ecosystem-based management (Pikitch et al. 2004).¹

Figure 2: Global Trends in Fisheries Catch and Fishing Effort (1950-2006)



Source: Watson et al. 2013

¹ Ecosystem-based fishery management reverses the order of management priorities to start with the ecosystem rather than the target species, with the overall objective of sustaining healthy marine ecosystems and the fisheries they support.

2.2. The Growth in Aquaculture Production

The FAO (2014) 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). By 2014, the world's fish farms supplied more food fish than wild landings, although the total global catch of wild fish is still larger, owing to non-food uses such as reduction to fishmeal (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 wild fish catches of many small-scale fisheries around the world.

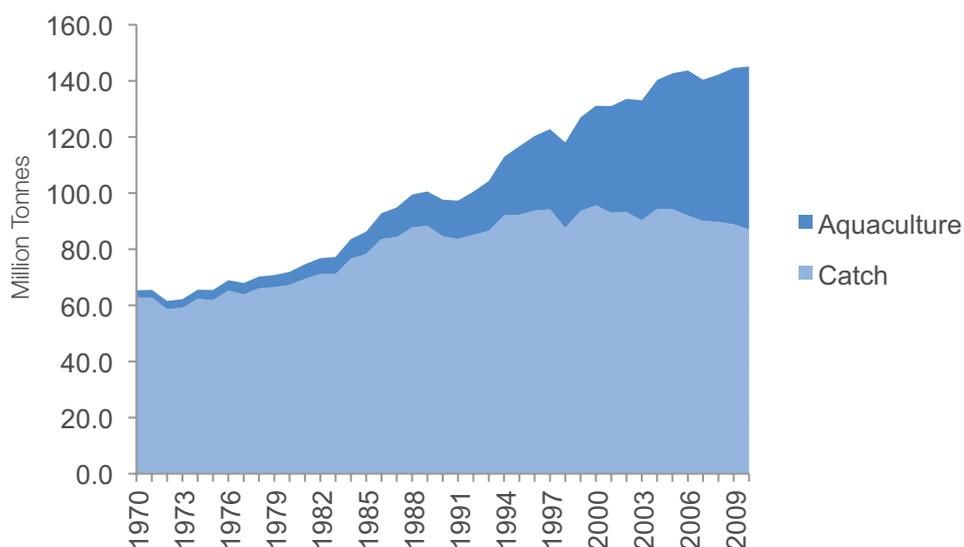
This huge increase in aquaculture production in recent years has its benefits but also its costs. It has helped to fill the gap between growing demand and stagnant landings from wild fish stocks. In contrast, the increase in the production of fish in farms has resulted, in certain instances, in environmental impacts that have caused concerns among experts. A recent study by the FAO, the International Food Policy Research Institute (IFPRI), and the World Bank projects that aquaculture production may reach 93.6 million tonnes in 2030—i.e. a 50% increase from the production level in 2011 (Msangi et al. 2013). Some analysts, however, have called for caution with respect to sectoral growth expectations, as growth is unlikely to continue at this pace in the long term, owing to constraints such as competition for space and water and problems related to disease and the environment. (e.g. Liu and Sumaila 2008).

There are concerns regarding the effect of fish farming on the sustainability of wild fish stocks. These include: derived demand for fish oil and meal; food safety and health issues related to fish farm products; and the potential negative impacts on the environment via wastes from cage cultures, farm escapees and invasive species, genetic pollution, disease and parasite transfer, and 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 minimizes impacts on wild fish stocks and the environment. In this effort, trade-related policies can play an important role, given the high proportion of fish and fish products from farms (e.g. shrimp) that are traded internationally. The paper puts forward specific proposals below. At a general level, trade policy can be used to support sustainable aquaculture production through the import and transfer of technology and know-how for example.

2.3. Illegal, Unreported, and Unregulated Fishing²

Although the definition of IUU fishing is controversial, for present purposes we use that provided in paragraph 3 of FAO (2001). It states that *Illegal fishing* refers to activities: (i) conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations; (ii) conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization (RFMO) but operate in contravention of the conservation and management measures adopted by that organization and by which the States are bound, or relevant provisions of the applicable international law; or (iii) in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization. *Unreported fishing*

Figure 3: Total Global Production of Seafood from the Wild and Aquaculture (1970-2010)



Source: FAO 2014

² IUU fishing is a challenge that affects wild fisheries but not aquaculture. Hence, the discussion here only relates to the former.

refers to fishing activities: (i) which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or (ii) undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization. Finally, *Unregulated fishing* refers to fishing activities: (i) in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or (ii) in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law.

Illegal, unreported and unregulated fishing is still common in many parts of the world. 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).³ IUU fishing is a barrier to the effective management and sustainability of oceans and fisheries. It also represents a major loss of potential revenue and wealth for many coastal developing countries.⁴ At its root, IUU fishing occurs because of the significant overcapacity that exists in the world's fishing fleet; growing demand for fish which boosts prices; inadequate fisheries management (especially monitoring and surveillance of fishing grounds); and the low penalties usually meted out when fishers are apprehended fishing illegally combined with low probabilities of being caught. In many cases, it "pays" not to stick to the rules. It is therefore important that IUU fishing is addressed in a comprehensive manner, including through cooperation with all stakeholders. Trade-related policy measures have great potential in contributing to solving this problem.

It should be noted that "illegal," "unreported," and "unregulated" catch represent different kinds of violations of fisheries governance rules. 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.⁵ Trade measures, such as those imposed by the EU, that demand 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 IUU fish catch if they inspire multilateral action that involves all players. For the purposes of this paper, we discuss trade measures that would require proof that fish products were sourced legally and not through IUU fishing.

Private sector efforts to address IUU fishing use supply chain traceability and verification (and the critical step of auditing) to exclude IUU catch from supply chains. These efforts are highly effective in some cases (e.g. the Barents Sea). But they are only as effective as the share of the market they hold: control documents required by just a few buyers may simply drive products to other buyers.

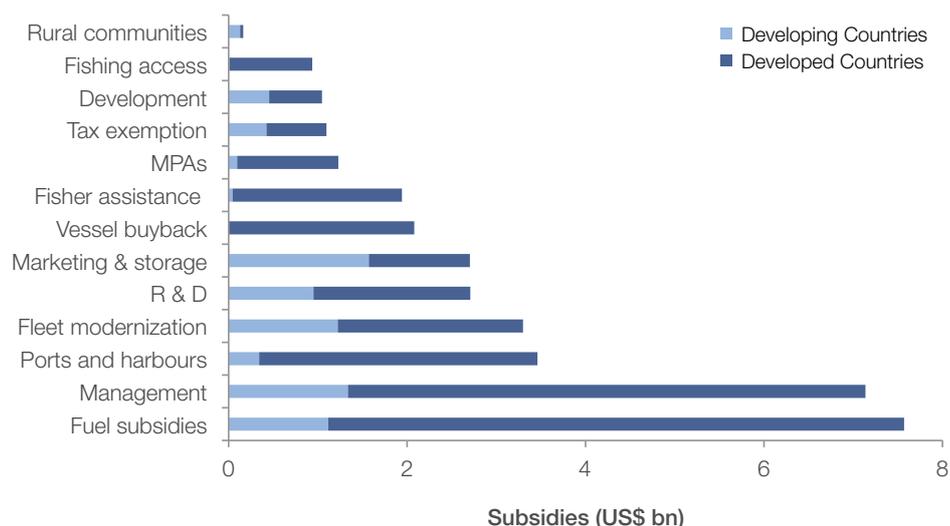
Unilateral trade measures limiting imports of IUU fish have been successful in reducing the profitability of illegal fishing and in requiring transparency of supply chains (a fact welcomed especially by some Small Island Developing States). While it is important that trade sanctions be severe enough to deter illegal activity, it is equally important that they be designed and implemented not to affect legitimate activities (Young 2015). It is also imperative that unilateral measures are based on engagement with exporting countries, including through the provision of technical assistance to enhance fisheries monitoring, control and surveillance. In the case of the EU measure, trade bans are implemented as the last step in a sequence of less trade-restrictive measures and the measure appears to have been designed to be fair, transparent and non-discriminatory. There has been a sense, however, that while bans have been imposed countrywide on small supplier nations, transgressions by larger, more complex and opaque supplier markets may have been unaddressed. This risks making small developing countries suspicious of an otherwise good policy.

We consider below unilateral options both in light of the urgency of the IUU challenge and because they are more feasible in the short term than a multilateral deal. They are also potentially of high impact. Unilateral measures, however, represent second-best options compared with 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 thus significant scope for regional, plurilateral and multilateral efforts to address IUU fishing through trade-related measures. Unilateral measures that are anchored in multilaterally agreed frameworks and principles would be particularly useful as stepping stones towards more collective approaches. Moving from unilateral to collective approaches would be helped by an international discussion on what these frameworks, principles, and technical building blocks could be.

³ The 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.

⁴ According to the Africa Progress Panel (2014) IUU fishing results in losses of around US\$1 billion annually in Sub-Saharan Africa.

Figure 4: Subsidies by Type and by Developed and Developing Country (2009)



Source: Sumaila et al. 2013

2.4. Fisheries Subsidies

A subsidy is generally understood to be some type of government support to a given private sector of activity, 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 thus 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.

In contrast, studies about the nature and scope of subsidies to the *wild fish sector* abound and they have dominated discussions on this subject over the years (e.g., Milazzo 1998). Despite the many attempts made at estimating the levels of fishing subsidies, measurement and political difficulties mean that reliable and accurate data 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 subsidized 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., sometimes defined as good subsidies because they are generally assumed to have a positive effect on our ability to sustainably manage fishery resources; (ii) capacity-enhancing subsidies, including those for boat construction, renewal and some forms of modernization, fuel subsidies,

and fishery development programmes, tend to promote disinvestment in the resource by motivating overcapacity and overfishing; and (iii) ambiguous subsidies, including those to vessel buy-back programmes and rural fisher community development, can promote or undermine the sustainability of the fish stock depending on the circumstances.

Total fisheries subsidies were recently estimated at about \$35 billion a year (Sumaila et al. 2013), which is significant since it constitutes between 30–40% of the landed values generated by wild fisheries worldwide. Of these, capacity-enhancing subsidies make up the highest share, at about \$20 billion in transfers to fishing fleets in 2009, with fuel subsidies constituting as much as 22% of the total (Figure 4). There is evidence that certain subsidies can contribute to the creation of excess fishing capacity, unsustainable levels of fishing effort and overfishing (e.g. Heymans et al. 2011).

This figure shows that fuel subsidies make up the greatest proportion (22% of the total), followed by subsidies for management at 20% and ports and harbours at 10%. Subsidies contributed by developed countries (65% of the total) are far greater than that contributed by developing countries.

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. This implies that even with good fisheries management subsidies can be harmful (Munro and Sumaila 2002).

² India epitomizes this situation with an average MFN applied rate for agricultural products equivalent to less than a third of the bound rate (39.4% vs. 136.1%). But the issue is similar in nature for Mercosur where it equally (and more importantly) concerns non-agricultural products.

³ Brink (2011), for example, found that application of the parameters suggested in the Doha draft Modalities of December 2008 could mean that allowances (after reduction commitments) for overall trade distorting support, including in particular de minimis allowances, might be such that all developing countries taken together could provide 73% of agricultural support in the world.

Members of the WTO agreed in 2001 to negotiate reductions in fish subsidies. But, over a decade later, the negotiations remain characterized by fundamental disagreements over the respective levels of commitments expected from emerging and more advanced economies and over the role of disciplines on subsidies and fisheries management. However, there appears to have been a resurgence of interest in the negotiations in the first half of 2015. Two groups of countries tabled proposals for similar packages of subsidy disciplines (i.e. those that prohibit the provision of subsidies to IUU fishing vessels and to fishing that targets overfished stocks) and (in one proposal) subsidies that support destructive fishing methods.⁶ Significantly, a group of WTO members are also negotiating plurilateral disciplines on fisheries subsidies within the Trans-Pacific Partnership (TPP) agreement (NOAA Fisheries 2014).

While we believe that the ideal option is still to reach an ambitious multilateral agreement on subsidies along the lines of the WTO Chair's 2007 text, we present possible avenues toward meaningful outcomes both within the WTO framework and in other fora.⁷

2.5. Tariff and Non-Tariff Measures

Seafood, both from the wild and fish farms, is a widely traded food commodity, with Asia, the US and Europe as key markets (Figure 1). The United Nations Convention on the Law of the Sea (UNCLOS), which came into force in 1982, gave coastal and island states sovereign rights over natural resources within 200 nautical miles of water off their coastlines as exclusive economic zones. This new form of rights over the majority of marine fisheries triggered a new regime of trade in access rights (Campling and Havice 2014). It also boosted trade in wild fish and fish products as developed countries, suffering from stagnating fishery production in their own EEZs and of their flagged vessels in historic developing country waters, sought new sources of fish and increasingly relied on imports (Swartz et al. 2010). This largely explains the relatively low levels of tariff protection applied in several developed countries on fish and fish products, compared with other food products, with only a few exceptions in the form of tariff peaks on a limited set of 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, tariff barriers tend to be slightly higher, owing to the desire to protect local fisheries sectors (Campling 2015).

Even though trade theory suggests that overall the global community would benefit from minimal barriers, from a sustainable development perspective the question of tariff liberalization presents a number of policy tensions.

The first is balancing the interests of those who benefit versus those who may lose if tariffs on fish products are lowered. Given the economic, social and cultural significance of the sector in some countries, many fish-exporting nations are pushing for new tariff liberalization commitments in multilateral and regional negotiations. Removing market access barriers, such as tariff escalations on processed products, could help developing countries expand their participation in international trade, adding value to their exports and generating income and employment. However, several developing countries have been concerned that further trade liberalization may affect the value of trade preferences granted to them through different schemes under the Generalized System of Preferences (GSP). This is particularly the case of Africa, Caribbean and the Pacific (ACP) countries that have traditionally benefited from significant preference margins in the EU market under the Lomé Convention and the successor Cotonou Agreement. By removing tariffs for ACP countries on certain products, while maintaining it for other trading partners, these preferences have facilitated the development of industrial processing plants such as canning factories or loining plants for tuna in countries like Fiji, Ghana, Kenya, Côte d'Ivoire, Madagascar, Mauritius, Papua New Guinea, Senegal, Seychelles, and Solomon Islands (Campling 2008).⁸ These preferences have by and large been preserved in the EU market, where import-competing industries, notably in Spain, have ensured that canned tuna is excluded from most EU regional trade agreements (RTAs). For preference-receiving countries, removing tariffs across the board on a most-favoured-nation (MFN) basis would result in the erosion of their preference margin and could affect the competitiveness of their locally based processing industry. The main policy challenge is therefore to help preference-dependent countries adjust to the changing competitive environment.

Another policy tension relates to balancing the increased demand and potential economic gains from liberalization with the need to limit catch levels to ensure the long-term sustainability of fish stocks. From a sustainability perspective, the relationship between tariff liberalization 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

⁶ Elements for defining a Post-Bali Work Programme on Remaining Doha Development Agenda Negotiations" Submitted by Barbados on behalf of the ACP Group of States JOB/TNC/46 of 12 March 2015, and "Elements for Effective Disciplines on Fisheries Subsidies in the Post-Bali Work Programme" Submitted by Argentina, Iceland, New Zealand, Norway, Peru, and Uruguay TN/RL/W/258 of 19 June 2015. See also "Rules Negotiations – Transparency" Submitted by the European Union TN/RL/W/260 of 16 July 2015.

⁷ The 2007 Chair's text proposed a comprehensive and sophisticated system of disciplines on fisheries subsidies, including a prohibition of several particularly harmful subsidies (including those to fishing vessel construction and fuel), disciplines on subsidies that harmed fish stocks in which other WTO members had an interest, and a graduated system of special and differential treatment for developing country members to continue to provide some kinds of subsidies, in particular to in-shore fishing.

⁸ It is worth noting that the story here is a bit more complicated as most EU tuna fleets, for example, fish in waters under the jurisdiction of those countries and some of the processing plants are EU owned.

kept at levels consistent with sustainability objectives, the pressure generated by trade liberalization 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 were invested in fisheries management, for example, trade could help support sustainable fisheries development and long-term food security. A further tariff issue in the fisheries sector (to which we return) is the lack of distinction in tariff and trade statistics between fish derived from wild capture and fish produced by aquaculture, which makes it difficult to track trade in products from each source. Also, tropical fish of less commercial significance to principal markets and increasingly niche products do not have species-specific Harmonized System (HS) tariff codes, making it difficult to discern trends in trade data, including intra-regional trade between developing countries.

As tariff barriers to fish products have fallen through successive rounds of regional integration and unilateral liberalization, non-tariff measures are becoming more significant barriers to market access. These measures, which may be public or private, include standards covering food safety, sustainability and the legality of production with 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 view. However, from the perspective of exporting countries, non-tariff measures are often seen as a trade barrier.

Eco-labelling is an ever more present non-tariff measure in fisheries trade. As a market-based tool, usually developed by private actors but sometimes (perhaps increasingly) developed by governments, eco-labels make it possible for consumers to select seafood from well-managed fisheries. In theory, this is a useful tool but the implementation can be problematic, as highlighted in some high-profile papers (e.g. Jacquet et al. 2010). There is a need, in particular, to support mutual recognition between national standards systems as well as developing country access to certification and pre-certification systems so that the use of standards and labels can better support a wider range of sustainable fish production. The use of fishery improvement projects (FIPs) would be beneficial in this respect (Sampson et al. 2015).

It is important to acknowledge that some of the policy options listed below rely (to a varying degree) on distinguishing between fish products based on their processes and production methods (PPMs). While some trade measures may be manifest in the final product (such as a prohibition on the import of juveniles, which would be reflected in the size of the fish itself), most of the trade measures relate to PPMs (such as the legality of fishing methods). Whether trade measures may legitimately differentiate between otherwise “like” (i.e. technically identical) products on the basis of PPMs that are not reflected in the product’s final characteristics has historically been contentious in trade law. However, early GATT panel views on this topic have been superseded by case law at the WTO Appellate Body, which recognizes that distinctions based on PPMs may validly be made (Cosbey and Mavroidis 2014). Trade measures that differentiate on the basis of PPMs may be permissible under WTO rules provided they are designed and implemented appropriately (Young 2015). In the context of sustainable development objectives, the manner in which fish products have been produced does matter, and the policy options have been crafted with the recognition that differentiation based on PPMs may be legitimate as well as legally grounded.

3. Trade-Related Policy Options

3.1. Prerequisites for Trade-Related Measures to Succeed

We focus on how trade measures related to the issues of subsidies, IUU fishing, and barriers to trade (both tariff and non-tariff) for wild and farmed fish could be implemented to promote the sustainable use of ocean resources. To increase the likelihood of success of these trade-related measures, it is important to take an inclusive, transparent, and coherent approach to addressing the identified challenges. Both public and private rule-making are likely to accelerate, and interdisciplinary approaches are crucial, with the private sector involved. 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 address the challenge of sustainable oceans and fisheries use, they have to be part of coherent policy frameworks, which include improvements to the management and governance of fisheries resources at all levels.

3.1.1. Inclusiveness

There is only one ocean. Fish do not respect national boundaries as they swim and fish trade, by nature, involves more than one country. Hence sustainable development and long-term use of ocean 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 that is fair and inclusive is needed. In some cases, regional approaches to monitoring and enforcement may be appropriate. In others, the economics and politics of an issue like subsidies may mean that a coalition of countries willing to work on trade-related measures is necessary to create critical mass.

Cooperation with non-state actors (including fishing companies and NGOs), many of which are already working on some 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 unlikely 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, including the pursuit of comparative advantage, which might involve free-riding on the efforts of other states 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.

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 the Convention on International Trade and Endangered Species (CITES), or regionally in regional fisheries management forums (e.g. the Convention for the Conservation of Antarctic Marine Living Resources), or in negotiations on regional and plurilateral trade and investment agreements such as the newly proposed African Tripartite Free Trade Area (TFTA) and the TPP. Ensuring participation of all relevant states will result in trade measures that are fairer, more transparent and non-discriminatory, and that 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 (EU 2008), are distinctive in their efforts to work collaboratively with affected states and stakeholders. It is also essential to include private actors in these endeavours. Importantly, recent work has made explicit the links between IUU fishing and poor social standards on boats (EJF 2014).

More generally, awareness of the issues, challenges and opportunities related to ocean and fisheries among the general public, stakeholders, and policy-makers is indispensable for the success of any trade-related measure. This broad awareness could translate into support for policy-makers to create the environment that would enable trade-related policies to work towards sustainable oceans and fisheries.

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, as far as possible, on the types and magnitudes of subsidies provided by countries to their fishing sector and the extent of illegal fishing among all parties. Special effort is needed to improve transparency with respect to fisheries by bringing private sector and public information together in integrated data platforms. This is a difficult and yet important basic requirement for the successful implementation of trade-related measures.

Transparency underpins the recommendations below on IUU import measures, subsidies, and trade data. Meaningful transparency relies on up-to-date and reliable data on fish catch, the broader health of fisheries and the economics of the industry. Improving the collection and sharing of

this data is an essential prerequisite for efforts, both public and private, to support sustainable fisheries. It is a stand-alone cross-cutting policy recommendation, and we outline specific options for how different types of data could be sourced and shared.

It is important to take into account the reasons transparency might not be achieved easily if forward momentum is to be realized. For governments, resistance to transparency could reflect both the tremendous cost of collecting and updating reliable data as well as a desire to avoid self-incrimination regarding potentially damaging policies in place (or absent) concerning subsidization or IUU fishing. Resistance to transparency initiatives on the part of private actors could reflect both the cost of collecting data and, at least in part, a desire to protect commercial in-confidence business information. A key to addressing the wariness of fish traders with respect to supply chain transparency is to enable information about how, where and by whom fish are caught to move along the supply chain without revealing commercial intelligence on the roles played by different actors.

3.1.3. Policy coherence

Coherence is necessary because many of the issues to be grappled with are interconnected. Addressing the challenges of sustainable oceans and fisheries goes beyond trade policy, which is but one (albeit important) component of the coherent policy framework required. Relevant examples include: (i) the importance of underlying management regimes, both national and international (through multilateral environmental agreements (MEAs) and RFMOs), on which trade measures are often based, in managing access to fisheries resources; and (ii) the importance of social policies to ensure the socio-economics of the fishery are also sustainable. Hence, in developing trade-related policies in general, it is important to take a holistic view of the problems and policy options proposed to resolve them. Addressing issues at the intersection of healthy oceans, sustainable fisheries and the trade system requires a comprehensive approach that takes into account ecological, economic, and legal realities as well as existing multilevel governance regimes. In addition to designing measures that take account of these complexities, implementation must be sensitive to local realities in relevant communities.

The rest of this section outlines three “work packages” of policy options that could help address the challenges identified above. The policy options recommended under each work package are structured and developed through the identification of the following elements: (i) current status; (ii) gaps to be filled; (iii) steps to be taken; and (iv) parties that need to lead and be involved for implementation. A time horizon is presented in conclusion.

3.2. Work Package 1: Market Access Conditions to Prevent, Deter and Eliminate IUU Fishing

The goal is to suggest trade-related policy measures as critical elements of a solution to the ocean and fisheries problem, which, at its roots, is caused by overcapacity in fishing fleets, inadequate fisheries management, weak governance and greed. This goal could be achieved by progressively closing down international trade in IUU fish products, taking into account the implications of adjustment for low-income countries. People engage in IUU fishing mainly because it pays economically. And it pays because there is a market for illegally caught fish. One way to eliminate IUU fishing is to develop means to make it difficult for fish products from IUU fishing to enter the market.

3.2.1. Policy Option 1: Build consultative, effective and coordinated unilateral import measures

While the ideal policy option is probably a multilateral agreement, this work package includes options for unilateral measures that could have an impact in the short to medium term, and, if well designed, could act as stepping stones towards a multilateral solution.

Trade-related efforts to address IUU fishing before 2010 focused on the use of national laws to enforce multilateral rules. Some international instruments in regional fisheries management organizations and the FAO’s International Plan of Action (IPOA) on IUU fishing (FAO 2001) contemplated the use of unilateral measures, albeit with a strong preference for multilateral solutions. The European Union’s IUU regulation and the FAO’s Port State Measures Agreement (PSMA) marked an important evolution in approach. The EU’s system of import requirements and particularly its escalating warning system have had a big impact. A good example of the effect of EU unilateral measures is Ghana. After the country received a yellow card under the EU’s IUU regulations in November 2013, the country used this as an opportunity to improve the monitoring of its waters. Thailand has also recently implemented a new policy to tackle IUU fishing by its vessels in order to avoid being subject to a red card by the EU. The US approach, set out in the Action Plan of the US Presidential Task Force on Combating IUU Fishing and Seafood Fraud (NOAA 2014), will likely rely on more direct information requirements concerning a set of species at risk and facilitated access for “trusted traders” who meet the verification requirements. In both the EU and emerging US systems, tensions between transparency and traceability, as well as sovereignty and commercial confidentiality are among the critical issues.

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 do not have similar systems—although the US, as indicated, is currently developing options. To make progress, other large seafood markets, particularly the US and Japan, could adopt transparent and consultative trade measures that incorporate good aspects of the EU system, such as those that address IUU fish transshipment and imports, including a ban as a last resort.

Domestic legislation would be required to make this recommendation work. Coordinated unilateral measures must include consultation with affected trading partners, and should take a stepwise 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 if care is taken in designing and implementing the measure so that it is not discriminatory or excessively trade-restrictive.⁹ The measures could also be based on international standards, such as the catch certification guidelines currently under discussion at the FAO, which could enhance their consistency with the Agreement on Technical Barriers to Trade (TBT). Moreover, unilateral technical regulations may meet the requirements of the TBT Agreement if they seek to meet a legitimate regulatory purpose and if they do not create unnecessary obstacles to trade.

As a complement to unilateral measures to address imports of IUU caught fish, countries could implement policies that prosecute domestic importers who violate trade measures. A good example is the US 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 US. This type of legislation can draw on CITES provisions which stipulate that penalties are shared between the country of import and that where the violation occurs.

A second gap relates to the fact that the effectiveness of EU member states in implementing the import measures is unclear (Palin et al. 2013). 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 successful IUU import measure will depend on fisheries management tools, including Catch Documentation Schemes, IUU vessel lists, traceability, and flag state responsibilities. The real impact of an IUU measure will depend on improving the reliability of these underlying marine governance systems.

The effective implementation of unilateral measures in large import markets requires leadership by the relevant countries (such as the US, EU members, China 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, including those taken at regional and multilateral levels. Critically, unilateral measures need to take into account the impact of the required shift in production on producers in low-income countries and attend to the issue. For example, Aid for Trade (Aft) or other assistance measures could be used to help producers meet traceability requirements for example.

3.2.2. Policy Option 2: Create a network of regional measures to address IUU fish trade

Unilateral measures, even when implemented by very large markets, are effective only to the extent that producers cannot send their products elsewhere. The global nature of fisheries trade means that many producers may be able to sell IUU caught fish in less regulated 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 in 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 may provide another example, but it appears 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 the future system to be applied in the TPP (an agreement that will include large fish markets like the US and Japan) is that they are not linked in any way, thereby creating the potential for inconsistency. Moreover, the membership of these regional agreements currently excludes some large import markets, such as China. Plugging this gap would make these measures more effective.

To address this gap, regional trade agreements could be used to build a cohesive network of regional platforms for IUU measures in several ways: (i) the Transatlantic Trade and Investment Partnership (TTIP) could include provisions to ensure coherence between the EU IUU system and the evolving US system; (ii) the TPP could establish a platform for parties to the agreement to move towards current best practice in import measures (the EU system) or move towards a linked US-EU import system if and when developed; (iii) the recently proposed African TFTA, which aims to bring together three of the continent's large Regional Economic Communities (RECs) in a grand free trade agreement, could be used as a platform for dealing with trade in IUU products; and (iv) other large import markets could join the TPP or TFTA IUU platforms, 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, the EU and US would need to negotiate and approve relevant provisions in the TTIP. In addition, other large markets would be key to expanding the coverage of the TPP platform. The African TFTA, if used as a platform, would need to expand to cover other RECs—e.g. the Economic Commission of West African States (ECOWAS).

3.2.3. Policy Option 3: Develop a system of multilateral instruments on trade in IUU fish products

Regional approaches to closing the market for products from IUU fishing could gradually help change the economics of the activity such that the cost of supplying IUU fish is too high to make it worthwhile on a large scale. However, a comprehensive and inclusive solution to the problem would most efficiently be negotiated multilaterally—hence the call for a system of multilateral instruments. 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, IUU fish trade is addressed in some existing multilateral instruments but not in the trade system itself. An example is the FAO's Port State Measures Agreement (PSMA) targeting the landing of illegal fish products, which is yet to come into force because only 11 countries have ratified the agreement to date. CITES 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. RTAs could be used to incentivize ratification and eventual entry into force of the PSMA. For example, parties to the TPP or the TFTA could agree to ratify the PSMA and make PSMA ratification a requirement for accession to these agreements. Second, key endangered fish species (e.g. bluefin tuna) should be listed in Appendix I or II of CITES, with support for industry adjustment in countries affected by the resulting trade restriction. Third, a multilateral agreement focused on trade in IUU fishing products could be developed. Key elements of best practice from unilateral or regional IUU systems could be captured in a voluntary code on IUU fish imports and transshipment within the WTO. Finally, it is important to stress the importance of RFMOs in developing effective solutions.¹⁰

The key institutions that can assist in the implementation of these policy options are the FAO, RFMOs, CITES, and the WTO. The contracting parties to CITES would need to agree to the listing of more vulnerable marine species. Also, WTO members participating in unilateral or regional IUU schemes could lead the development of a voluntary code within the WTO.

3.2.4. Policy Option 4: Support the expansion of private sector schemes

It is generally accepted that state-based solutions alone will not be sufficient to address the challenges of IUU fishing. They need to be supported and complemented by private sector initiatives and actors.¹¹ Several private sector certification schemes either 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. The limitations of existing schemes include: (i) many fisheries, particularly those in developing countries, are not covered by private sector certification or other schemes; (ii) the traceability of fish products, especially in low-capital fisheries, is very difficult; and (iii) the mislabelling of fish products is common.

Enhancing the participation of developing country fisheries in sustainability certification involves both simplifying access to certification systems (e.g. through group certification under the Global Aquaculture Alliance) and providing less rigorous options, such as fishery improvement projects, which are upgrading processes rather than consumer-facing standards. The sequencing of improvements is key to ensuring cost burdens are manageable.

To improve private sector schemes, certification bodies could require evidence that the catch is both from a sustainable fishery and that it is legal. Certification bodies could also work to ease the accessibility of their schemes to developing country fisheries. Assistance could come in the form of increased AfT support for the development of data collection, which would serve both private and public sector initiatives, and the development of infrastructure to enable the traceability and eventual certification of fish products. For implementation to be successful, all parties (i.e. public and private certification bodies, fish buyers, and the fishing industry) would need to be involved in the process. Private and public fisheries legality and sustainability certification bodies, along with AfT donor and recipient governments, would need to take the lead in implementing this policy option.

¹⁰ Roheim and Sutinen (2006) provide a useful discussion on how multilateral environmental agreements have important implications for the effectiveness of RFMOs.

¹¹ A good example of how private and state actors can work together to deal with IUU fishing in the Southern Ocean is described in Österblom et al. (2015).

3.3. Work Package 2: Disciplining Fisheries Subsidies

The goal of this work package is to improve transparency around global fisheries subsidies and build momentum towards a multilateral agreement on subsidy reform.

3.3.1. Policy Option 5: Developing reliable data on fisheries subsidies

Improving transparency around fisheries subsidies is a fundamental requirement for further work on disciplines. Greater transparency could stimulate action not only by revealing the scale of the problem, but also by providing a solid dataset accepted by governments with the responsibility of implementing reform. A solid database would provide a basis for measurement by both governments and civil society of subsidy reductions or increases. This would underpin the transparency and monitoring of unilateral reform efforts, support improved coherence across national policies, strengthen momentum for collective reform, and enable the implementation of reduction commitments to be verified. More broadly, there is a need for greater awareness of the impact of subsidies provided by trading partners and of how regional approaches to reform could be developed based on national practices and priorities.

Currently, WTO members are obliged to notify fisheries subsidies under the Agreement on Subsidies and Countervailing (ASCM) Measures. Parties to the TPP 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 intergovernmental organizations (IGOs). Yet, notification of fisheries subsidies remains patchy despite the obligation in the WTO. There are few independent assessments of actual subsidy levels against which to evaluate notifications and the actual consequences of not fully notifying are minor. Independent databases and reports produced by IGOs, NGOs and academic sources are helpful but their coverage of countries is limited and in some cases must rely on estimates.

Further support for the development of comprehensive and independent databases of fisheries subsidies (similar to the OECD's work on agricultural and fossil fuel subsidies) is thus needed. These databases could be used by NGOs, academic institutions and other civil society groups to publish independent analysis. They could also inform the counter-notification of fisheries subsidies by WTO members. The WTO Secretariat could reference counter-notifications by governments and/or parallel independent research by IGOs or NGOs in Trade Policy Reviews (which serve as fora for discussion). Committees in RTAs could also reference counter-notifications by governments or information from NGOs in their reviews of member notifications. Specific additional notification requirements for fisheries subsidies could be established in the WTO, possibly by linking them to new fisheries subsidy disciplines.

The academic, IGO and NGO communities would need to serve as agents of change by providing ongoing independent research and assessment work on fisheries subsidies. WTO members would need to file the proposed counter-notifications by relying partly on this research. Finally, RTA members would need to provide leadership in the relevant RTA committees that review subsidies, also with the help of this independent research. In terms of further research, there is a general lack of knowledge about subsidies to the aquaculture sector. Work is needed to fill this gap so as to inform the design of appropriate measures.

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

It is worth repeating that the ideal option for fisheries subsidies disciplines is still to agree to an ambitious multilateral agreement along the lines of the WTO Chair's 2007 text. However, given the difficulty in achieving universal subsidies disciplines through the WTO and the urgent need to take action to tackle the problems of oceans and fisheries, a possible approach would be for a group of countries, possibly in partnership with IGOs, to move forward with disciplines. The key limitation of the plurilateral approach, as exemplified by the TPP, is that many large subsidizers (e.g. China, Chinese Taipei and Russia) are not part of the current group of negotiating parties and any agreement reached would therefore not be applicable to them. To reduce the extent of free-riding, an agreement among a core group of countries to reform harmful subsidies could, in the context of an RTA, be combined with trade rules that specify preferential conditions under which this group of countries would engage in the trade of fish and fish products with countries that are not participating in the agreement. Outside the framework of an RTA, the incentives to join a subsidy reduction initiative (beyond the purely political) may be limited.

The kind of core group envisaged above could be built through one or more of the following options: (i) accession to an existing RTA would require acceptance of the RTA subsidies disciplines in exchange for preferential market access; (ii) RTA disciplines could also become a stand-alone code that large subsidizers would have political incentives to join; (iii) the US could push to introduce TPP disciplines into the TTIP, thus extending them to the EU; and (iv) other regional agreements (e.g. ASEAN, the Pacific Alliance, CARICOM, ECOWAS) could also adopt disciplines on a regional basis (e.g. Österblom et al. 2015). Regional groupings could also agree to lock in domestic subsidy reform efforts through provisions in their agreements.

For progress to be made in bringing this policy option to fruition, parties to RTAs, such as the TPP, ECOWAS, the African TFTA and TTIP, would need to push the agenda for inclusion in relevant agreements with the support of NGOs. Governments that are parties to regional agreements would need to back the proposal while the support of local civil society would be crucial. Regional groupings could also agree to lock in domestic subsidy reform efforts through provisions in their agreements.

3.3.3. Policy Option 7: Establish multilateral disciplines built stepwise and bottom-up

Another possible approach would be for a group of countries, perhaps in partnership with intergovernmental organizations, 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 capacity-enhancing subsidies that they would 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 desired level of global reductions, this approach would require either multilateral participation or at least the involvement of the world’s largest providers of fisheries subsidies.

Civil society groups could help accelerate the uptake of this example by encouraging and prodding countries. To further catalyse action, countries could explore the development of creative incentives to encourage others to join such an initiative. Again, this recommendation would have to be implemented in accordance with existing international agreements such as CITES and the WTO.

The stepping stone of a plurilateral agreement could eventually be multilateralized in the WTO if enough large subsidizers were involved. There are several options for this, including: (i) RTA parties (and members of a wider core group) would recommit in the WTO to agreed subsidy disciplines in the form of a voluntary code or binding agreement to reduce subsidies, the benefits of which would apply to all other countries on an MFN basis (like the Information Technology Agreement); (ii) the core group would then negotiate their own phase-out of the remaining important subsidies in the ambition gap—e.g. subsidies to fuel and vessel 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 a commitment to phasing-out the gap subsidies. It is possible that work underway on fossil fuel subsidy reform could result in useful spillovers regarding fuel subsidies to fisheries.

The leadership of relevant RTA members and a wider core group of major subsidizers would be needed to bring this option to life in the WTO.

3.3.4. Policy Option 8: Restart WTO negotiations based on areas of agreement

The first best option—an ambitious multilateral agreement—could be pursued by restarting the WTO negotiations by focusing on areas of relative agreement. As noted in section 2.4 *supra*, proposals for a small package of subsidy disciplines tabled early in 2015 suggest that there is still interest in achieving multilateral disciplines.

As identified in the WTO Chair’s 2011 report on the fisheries subsidy negotiations, areas of (relatively) more agreement include subsidies to IUU fishing, vessel transfers and access agreements. There was arguably some level of agreement, at least in principle, with the idea of reforming vessel construction subsidies and those affecting overfished stocks.¹² It may therefore be possible for countries to agree to eliminate a small list of subsidies in the interest of healthy oceans and sustainable fisheries by focusing on the low hanging fruit—i.e. subsidies whose reform attracted the most support in the WTO negotiations.

Another option would be to restart the WTO negotiations focusing on the capacity- or effort-enhancing subsidies that evidence suggests are most likely to be harmful (e.g. construction, fuel) and concentrate on developing instruments to phase them out within a fixed time frame. Leadership in implementing this policy option would come from WTO members with support from the scientific community on the evidence of harm.

3.3.5. Policy Option 9: Align incentives by focusing subsidy negotiations on international fish stocks

A key reason for the lack of progress in protracted subsidies negotiations at the WTO is that the negotiations suffer from 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 has limited the ability of the WTO fisheries subsidies negotiations to make progress by confounding the subsidies issue with other problems. One way to overcome this difficulty is to align subsidies policies with national interests by splitting the world’s fisheries into domestic and international fisheries.¹³ International negotiations could then prioritize agreement to reform subsidies that affect international fish stocks, and governments would work unilaterally to reform subsidies that affect their domestic fisheries. This policy option may not be that far-fetched because a close look at the work of RFMOs reveals that their operating framework is at least partly based on this approach.

¹² The FAO estimates that 29% of stocks are overfished.

¹³ The former would comprise fisheries operating within a country’s EEZ targeting fish stocks that spend all their lives within the EEZ. The latter would include fish stocks that are transboundary or highly migratory, 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.

A key impediment in moving this proposal forward is that there appears to be limited political incentive to address subsidies to domestic fisheries. This may be due to inadequate and insufficiently widespread knowledge among the public and policy-makers of the negative impact of subsidies that encourage overfishing. That is why transparency is an integral component of the subsidies discipline debate.

Analysis that helps identify international and shared fish stocks as opposed to domestic ones is necessary to instigate this recommendation. Work in this area has already begun (Teh and Sumaila 2015). The following steps would be needed to implement the option: (i) restarting the WTO negotiations with a higher priority assigned to subsidies that affect international stocks (discrete high seas, shared, straddling, highly migratory) and then expanding the disciplines to EEZ subsidies; (ii) building evidence around the impact of domestic subsidies on domestic fish stocks in key countries; and (iii) lobbying for reform of domestic fishing subsidies. Key drivers would include domestic civil society actors, national governments, relevant bodies in RTAs, the research community, NGOs and WTO members, with support from the FAO.

3.4. Work Package 3: Tariff and Non-Tariff Measures

While in the IUU and subsidies work packages the objective is to ensure that trade does not undermine the environment, the main aim of this work package is to ensure that international markets function effectively and that they enable developing country producers to move up the value chain. There are several broad policy reforms that could support more efficient markets for fishery products. These include reducing distortions like tariff escalation, improving trade infrastructure and establishing procedures to lessen the costs of trade.

The policy options outlined below address more specific issues in international fisheries trade. Given the heterogeneous nature of fisheries production and its ecological and economic variables, governments will need to work case-by-case to ensure that they integrate the impact of tariff liberalization on relevant production and trade flows in a sustainable manner.

3.4.1. Policy Option 10: Differentiate between capture and aquaculture fish in HS tariff codes

Distinguishing between wild-caught and aquaculture fish products in tariff lines would enable better measurement of the changing structure of global fisheries trade and improve the traceability of products through the value chain. It would also help policy-makers address the distinct environmental impacts of the two production methods. Moreover, further differentiation could be added to HS tariff codes to distinguish among inland freshwater capture fishery products as well as within aquaculture depending on methods of production. The purpose of this differentiation would be to gather information regarding capture and aquaculture product flows, and not to allocate distinctive tariff levels to different kinds of product. However, it is clear that once differentiation is possible, political pressures may emerge to apply different levels to the two tariff lines.

A proposal to distinguish wild caught and aquaculture product is currently being considered in the World Customs Organization (WCO), but actual implementation is pending a final decision. Governments around the world would have to support this policy for it to be implemented and national customs authorities would play a major role.

3.4.2. Policy Option 11: Support the adaptation of preference-dependent countries

As preference margins are gradually eroded, preference-dependent producers will need to adjust to the changing competitive environment. More flexible rules of origin (ROO) for preferential market access could help these producers diversify their sourcing of inputs and access global production networks, thereby creating more options as their competitiveness evolves. 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 (Hamilton et al. 2012).

Few preference agreements allow for the global sourcing of inputs. Given the growing impact of RTAs on preferences, more flexible ROO arrangements could be negotiated in bilateral or regional agreements. More flexible rules regarding cumulation could also support the development of regional value chains. Greater flexibility in preferential arrangements could be conditioned on fish meeting sustainability and legality requirements. 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. The key actors that can influence the implementation of this policy option are countries that allocate and receive preferences. Beyond rules of origin, there may be a case for international financing mechanisms, including under the AfT initiative, to provide technical assistance for producers to adjust to reduced competitiveness caused by preference erosion or graduation from preference schemes.

3.4.3. Policy Option 12: Provide assistance to low-income fish exporting countries to reach standards

The aim of this option is to help producers adapt to changing competitive conditions imposed by sustainability standards. As tariff barriers become less relevant in major markets due to the growing network of RTAs, public and private standards are likely to become the main market access constraint for fish products. Producers that are small, located in poor countries, with limited access to capital, or operating in fragmented industries are at a 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 in which producers can move towards certification is essential.

Financial, technical and institutional support from home governments, donors and (where appropriate) lead firms (e.g. branders and retailers) is necessary to spread the costs required to comply with standards. Partnerships between

fish exporting least developed country (LDC) producers and environmental organizations may also be a good option to explore. Aid for Trade, the International Trade Centre and bilateral donors could provide technical assistance to help exporters, especially LDCs, meet these standards. Importing countries could further reorient AfT disbursements or tariff revenues to support this policy option.

The private sector, which has been at the forefront of much work on sustainability standards, has an important leadership role in this recommendation. Private actors are well positioned to both improve access to existing certification schemes (as the Marine Stewardship Council is doing) and assist producers and retailers to work towards bridging the gap between production realities and sourcing requirements (as conducted, for example, in FIPs).

3.4.4. Policy Option 13: Ensure coherence between private standards and the TBT Code of Good Practice on standards

Standards and technical regulations (including labelling) established by WTO members are subject to the provisions of the SPS and TBT Agreements. Private standardization and labelling schemes or other commitments on the part of private actors and investors in the fishing industry should contribute to the overall effort toward healthy oceans and sustainable fisheries and aquaculture production over time. An endeavour is already underway within the fisheries industry to reduce unnecessary duplication in certification schemes.

Although the provisions of the TBT and SPS Agreements do not formally cover private standards and labels, non-governmental standard-setting bodies should be urged 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 set out in the 2000 Decision of the TBT Committee on international standards, such as transparency, openness and coherence, 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 the ITC, could focus on sharing information and, where relevant, providing technical assistance to meet fisheries product standards. Leadership for pushing this proposal forward would have to come from private sector standard-setting and certification bodies. The UNFSS and ITC Secretariats would also have an important role.

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

National SPS and TBT systems differ and are sometimes applied inconsistently. This creates uncertainty in the policy environment. Several of the mega-regional trade agreements currently under negotiation, in particular the TTIP and TPP, are likely to be significant both in terms of size and depth. Together, these agreements will not only lower market access barriers but also establish new rules covering behind-the-border measures affecting over half of world trade. While they are unlikely to seek to harmonize technical regulations and standards, they may establish mutual recognition for some testing and conformity assessment processes.

Mutual recognition between large markets can exclude other producers and reduce their competitiveness—even when standards can be met. In order to ensure that these integration tools are inclusive, the parties to large RTAs could consider including a linking mechanism by which trading partners who are outside of the agreement, but whose systems enjoy mutual recognition with one or more of the parties involved, could benefit from the agreement's wider mutual recognition provisions. In other words, large RTA mutual recognition frameworks should allow non-parties to gain recognition and market access for their products provided their testing systems are certified as meeting the required standard by any one of the parties to the RTA. This provision, combined with technical assistance and capacity building to meet recognition requirements, could help change the cost-benefit equation for producers outside of the regional agreements.

This linking provision could be included in the text of the TPP and TTIP, as well as relevant RTAs such as the TFTA, with appropriate support provisions to help key trading partners, particularly LDCs, bring their testing and conformity assessment systems up to a standard at which they could be recognized by the broader system. In terms of leadership, parties to the TPP, TTIP and other RTAs of relevance are well positioned to realize this policy option.

4. Priorities and Next Steps

A number of wild fisheries and aquaculture management and governance institutions have been established to support the sustainability of oceans and fisheries. While there are examples of success, the prioritization of short-term gains, the lack of precautionary and ecosystem-based management, and the weakness of enforcement mechanisms have impeded progress towards the sustainable management of fisheries. The erosion of resources continues to undermine the long-term interests of many communities, including food security, employment and income.

Priority trade-based policy solutions include the reform of harmful subsidies and efforts to restrict the global fisheries market to sustainable and legal products. While there is a preference for multilateral approaches, in light of the pressing challenges facing oceans and fisheries worldwide and the need for expedited action, this paper proposes policy options that may compromise on multilateralism in the short term in order to facilitate the building of broader solutions in the system in the longer term. Coordinated unilateral instruments, including trade bans, could be useful short-term measures, but they should be fair, transparent, reasonable and proportionate. In addition, improving transparency by developing comprehensive data on fisheries subsidies would help inform reform efforts and should be a priority policy issue.

A sectoral trade agreement on sustainable fisheries could address a number of different aspects of fisheries trade, including tariff and non-tariff measures, IUU fishing and fisheries subsidies. Aid for Trade and other development finance tools can be used not only to catalyse agreement and action but also to mitigate the potential negative impacts of these policies on small-scale fisheries. Such a sectoral initiative could be developed either within the WTO as a plurilateral agreement or within the framework of regional trade agreements.

4.1. Time Scales for Implementation

Table 1 provides an indicative time scale for implementing the policy options under the three work packages proposed in this paper. Short-term policy options are those that we estimate can be implemented within one to three years; medium and long-term options are estimated to take between three to five and five to ten years respectively. It is expected that medium to long-term policies would likely have bigger impacts in terms of their effect on the sustainability of fisheries. It should be noted, however, that this categorization reflects a combination of positive and normative assessments of what is feasible.

Table 1: Oceans and Fisheries Policy Options Time Scale

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

Under the work package on closing the market for IUU fish catch, options 1 (unilateral measures) and 4 (private sector schemes) would be important in that they could catalyse the global community to implement policy options 2 (regional measures) and 3 (multilateral instruments)—i.e. those options that are more difficult to realize but if successfully implemented would have widespread impacts.

With regards the work package on fisheries subsidies, options 5 (reliable data) and 6 (core group disciplines) would provide both a basis and an impetus for implementing policy options 7 (bottom-up multilateral disciplines), 8 (restarting WTO negotiations) and 9 (aligning incentives around international fish stocks), because reliable data would generate the information needed while action by a core group of countries could spur wider participation in efforts to discipline capacity-enhancing subsidies.

Policy options 10 (tariff code differentiation), 11 (preference-dependent adaptation) and 12 (assistance to reach standards) in the work package on tariff and non-tariff measures seem feasible in the short term. Their implementation would have a significant impact in supporting sustainable trade in fish and fishery products and in stimulating action on options 13 (standards coherence) and 14 (linking mutual recognition systems).

4.2. Concluding Remark

The analysis and proposals reported herein can contribute to work currently underway in areas such as multilevel governance in fisheries, the relationship between oceans and climate change mitigation efforts, energy subsidies, the correlation between subsidies and global fishing activities, and the intersection between trade and IUU fishing. The ideas suggested in this paper are also relevant to ongoing work on financial aspects of the fisheries industry, including financing small-scale fisheries, developing investment rules and dealing with money laundering in the fisheries sector. To restate the premise on which this policy option paper has been prepared: with 37% of fish and fish products traded internationally, enlightened and well-informed trade-related policies can make an important contribution towards securing a healthy ocean and sustainable fisheries worldwide. The three work packages provide an innovative and inclusive agenda for domestic reform and international cooperation.

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Overview Paper and Think Pieces

E15 Expert Group on Oceans, Fisheries and the Trade System

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The papers commissioned for the E15 Expert Group on Oceans, Fisheries and the Trade System and can be accessed at <http://e15initiative.org/publications/>.

Annex 1: Summary Table of Main Policy Options

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
Work Package 1: Market access conditions to prevent, deter and eliminate IUU fishing					
1. Build consultative, effective and coordinated unilateral import measures.	Short term	<p>This is already happening.</p> <p>The EU import measure is currently the strongest option being implemented. While the ideal would be to have a multilateral agreement to address the challenge of IUU fishing, in the meantime, transparent and consultative unilateral trade policy measures are a useful way forward.</p> <p>A US Presidential Task Force has also released an action plan to begin to address the challenge of illegal fish trade.</p>	<p>1) Currently, a key gap in the effectiveness of the EU's measure is that it is limited to one import market; other main markets don't have similar systems.</p> <p>2) Compliance by EU's own member states with the import measures is not always clear.</p> <p>The impact of any IUU measure will depend on improving the reliability of marine governance systems and fisheries management tools, including Catch Documentation Schemes, IUU vessel lists, and flag state responsibilities.</p>	<p>1) Other large seafood markets, particularly the US and Japan, should be encouraged to adopt transparent and consultative trade measures, taking into account current best practice in the form of the EU's system, to address IUU fish transshipment and imports, that include a ban as the last option.</p> <p>2) Those 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.</p>	<p>1) Implementing unilateral measures in other large markets will require leadership by the relevant governments, civil society as well as domestic fishing and processing industries.</p> <p>2) Improving existing unilateral measures will require leadership by governments and the fishing industry.</p>

<p>2. Create a network of regional measures to address IUU fish trade.</p>	<p>Medium Term</p>	<p>The EU import measure is currently the strongest option being implemented.</p> <p>It is possible that the TPP agreement may impose relatively soft obligations on its parties to address IUU fish trade.</p>	<p>The existing EU import measure and potential system to be applied to TPP parties (including large markets like the US and Japan) do not appear to be linked.</p> <p>The membership of existing regional agreements (RTAs – into which platforms would be built) currently excludes some large import markets (particularly China).</p> <p>The approach in this policy option 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.</p>	<p>Regional trade agreements could be used to build a cohesive network of regional platforms for IUU measures in several ways:</p> <p>1) The US-EU TTIP agreement could include provisions to ensure coherence between, or directly link, the EU IUU system and the evolving US system.</p> <p>2) The TPP agreement could establish a platform for TPP parties to move towards current best practice in import measures (the EU system) or a linked US-EU import system.</p> <p>3) 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 normative leadership as the incentive).</p>	<p>1) The TTIP parties would negotiate and approve these provisions.</p> <p>2) TPP parties would negotiate and approve the IUU measures platform.</p> <p>3) Other large markets (e.g. China) would be key to expanding the coverage of the TPP platform.</p>
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Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
3. Develop a system of multilateral instruments on trade in IUU fish products.	Long term	<p>Illegal fish trade is addressed in some existing multilateral instruments, but not in the trade system itself.</p> <p>1) In the FAO, the Port State Measures Agreement (PSMA) addressing landing of illegal product has 11 ratifications but is not yet in force.</p> <p>2) In CITES, several important and vulnerable marine fish species are not subject to protected trade controls.</p>	<p>1) PSMA not yet in force.</p> <p>2) Key endangered fish species (e.g. Bluefin tuna) not listed on CITES</p> <p>3) There is currently no multilateral agreement focused on trade in products of IUU fishing.</p> <p>The approach in this option seeks to use regional trade agreements to support the entry into force of other multilateral instruments and to establish, through the WTO, a code of conduct on illegal trade.</p>	<p>1) Regional trade agreements could be used to incentivize 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.</p> <p>2) CITES parties should work to list key fish species on CITES Appendix I or II, combined with support for industry adjustment in countries affected by the resulting restriction of trade.</p> <p>3) Key elements of best practice unilateral or regional IUU systems could be captured in a voluntary code (or reference paper) on IUU fish imports and transshipment, in the WTO, for WTO members to subscribe to.</p>	<p>1) TPP parties would need to establish this obligation in the agreement.</p> <p>2) CITES parties would need to agree to these listings and provide the required support for adjustment.</p> <p>3) WTO members participating in unilateral or regional IUU schemes could lead the development of this voluntary code.</p>
4. Support expansion of private sector schemes.	Short term	<p>Several private sector certification schemes include, or focus on, assessments of the legality of the fish caught.</p> <p>Marine Stewardship Council (MSC) includes a legality element.</p> <p>Species-specific legal catch systems (e.g. Barents Sea cod).</p>	<p>Many fisheries, particularly in developing countries, are not covered by effective governance, private sector certification or other schemes</p> <p>Traceability of fish products, particularly in low-capital fisheries, is very difficult.</p>	<p>1) Certification bodies should include evidence of legal harvest in certification and pre-certification systems (if not already present).</p> <p>2) Certification bodies should ensure the standards are accessible to developing country fisheries.</p> <p>3) Increase Aid for Trade (AfT) support for the development of infrastructure to enable traceability and eventual certification of fish products.</p>	<p>1) Certification bodies, both public and private, and for pre-certification, fish buyers and fishing industry would need to be involved.</p> <p>2) Private and public fisheries legality and sustainability certification bodies.</p> <p>3) AfT donor and recipient governments' involvement required.</p>

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
Work Package 2: Disciplining fisheries subsidies					
5. Developing reliable data on fisheries subsidies.	Short Term	WTO members are obliged to notify fisheries subsidies under the Agreement on Subsidies and Countervailing Measures (ASCM). 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. The G20 receives reports on certain subsidies from different IGOs.	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 estimates.	<ol style="list-style-type: none"> 1) Further support to the development of comprehensive independent databases of fisheries subsidies (similar to the OECD's work on agricultural subsidies) that could be used by NGOs to publish independent subsidy analysis. 2) WTO members could file counter-notifications of fisheries subsidies. 3) Specific additional notification requirements for fisheries subsidies could be established in the WTO. 4) The WTO Secretariat could reference counter-notifications by governments, or analysis by IGOs or NGOs in Trade Policy Reviews. 5) Committees in the TPP could reference analysis or counter-notifications by governments or NGOs their review of members' notifications. 	<ol style="list-style-type: none"> 1) The academic, IGO and NGO community would need to lead this independent research and assessment work. 2) WTO members would need to file these counter-notifications, but would rely on IGO, NGO, and academic research. 3) WTO members would need to agree this, perhaps as a decision in the SCM Committee. 4) The WTO Secretariat would do this, but would require the support of WTO members. 5) TPP Parties would need to lead this in the relevant TPP committees, relying on IGO, NGO, and academic research.

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
6. Core group of countries adopts fisheries subsidies disciplines.	Short Term	TPP may include disciplines on subsidies to overfished stocks and IUU vessels.	Any plurilateral disciplines would need to cover several large subsidizers (EU, China, Chinese Taipei, Russia) to be effective.	<p>RTA outcomes could be used as a stepping stone towards multilateral disciplines by way of a plurilateral agreement on subsidies, subscribed to by a “core group” of large subsidizers, built by one or more of the following options:</p> <p>1) Accession to an RTA would require acceptance of the RTA’s subsidies disciplines in exchange for preferential market access.</p> <p>2) RTA disciplines could also become a “stand alone” code that large subsidizers would have political incentives to join.</p> <p>3) The US could push to introduce TPP disciplines into the TTIP agreement, binding the EU.</p> <p>4) Other regional agreements (e.g. ASEAN, the Pacific Alliance, Caricom, African TFTA) could also adopt subsidy disciplines on a regional basis.</p>	<p>1) RTA parties would need to agree to the accession of others on condition that they accepted subsidy disciplines.</p> <p>2) RTA parties and others would need to build this stand-alone agreement.</p> <p>3) RTA parties would need to push this, with the support of NGOs and some European countries.</p> <p>4) Governments that are parties to regional agreements would need to push this, with support from local civil society.</p>

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
7. Establish multilateral disciplines built stepwise and bottom up based on a plurilateral deal.	Long Term	TPP may include disciplines on subsidies to overfished stocks and IUU vessels.	Important potentially harmful subsidies appear to not be part of TPP and other RTA disciplines, particularly subsidies to fuel and vessel construction.	<p>The stepping stone of a plurilateral agreement could eventually be multilateralized in the WTO if there were enough large subsidizers involved. There are several options for this:</p> <p>1) Parties to plurilateral disciplines (and members of a wider core group) would re-commit in the WTO to agreed subsidy disciplines in the form of a most-favoured-nation agreement or voluntary code.</p> <p>2) The core group would then negotiate the phase-out of the remaining important subsidies in the “ambition gap”: e.g. fuel, construction.</p> <p>3) Accession by other WTO members to the agreement (or code) would require adherence to the basic disciplines agreed by the core group and commitment to phase-out of the gap subsidies.</p>	A core group of major subsidizers would need to be involved for this series of steps to be effective in the WTO.

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
8. Restart WTO negotiations based on areas of (relatively) more agreement.	Medium Term	WTO Chair's 2011 report: areas of (relatively) more agreement are subsidies to IUU vessels, transfer of vessels, and access agreements.	Subsidies to overfished stocks arguably could have been listed. FAO lists 29% of stocks as overfished.	The first-best option – an ambitious multilateral agreement – could be pursued by restarting the WTO negotiations based on: 1) Areas of (relatively more) agreement: subsidies to IUU, transfer of vessels, access agreements (maybe also overfished stocks). 2) The subsidies that evidence suggests are most likely to be harmful (construction, fuel) and focus on developing a way of phasing them out.	WTO members would lead this, with support from the scientific community on the evidence of harm.
9. Align incentives by focusing international subsidy negotiations on international stocks.	Long Term	WTO negotiations cover subsidies to both exclusive economic zones (EEZ) and High Seas.	Countries' main interest is in a collective agreement relating to shared stocks. Coverage of purely domestic stocks in the same agreement reduces countries' interest in participating.	1) Restart the WTO negotiations giving a higher priority to subsidies that affect international stocks (discrete high seas, shared, straddling, highly migratory), then expand disciplines to EEZ subsidies. 2) Build evidence around impact of domestic subsidies on domestic fish stocks in key countries. 3) Lobby for reform of domestic fishing subsidies.	1) WTO members would need to lead this, with support from the FAO around which stocks would fall within the new scope. 2) National governments, the research community and NGOs would need to build this evidence. 3) Local civil society would need to push this.
Work Package 3: Tariffs and non-tariff measures					
10. Differentiate between capture and aquaculture fish in HS tariff codes.	Short Term	Already being considered in World Customs Organization.	Decision pending.	Encourage governments to support differentiation decision.	National customs authorities would need to move this decision.

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
11. Support preference-dependent countries to adapt.	Short Term	Few preference agreements allow “global sourcing”.	Renegotiated preference agreements should allow more flexible sourcing to balance the loss of competitiveness as preferences are eroded.	Negotiate more flexible rules of origin for fish products, conditioned on fish meeting sustainability and legality requirements, in European Partnership Agreements and preference agreements. Least developed countries are presumably covered by duty-free and quota-free market access.	Preference-giving and receiving countries would need to negotiate this in their agreements. There may be a case for international financing mechanisms, including under the AfT initiative, to provide technical assistance for producers to adjust to a loss in competitiveness caused by preference erosion.
12. Support low-income fish exporting countries to adapt by providing support to reach standards.	Short Term	Aid for Trade, International Trade Centre (ITC) and WTO technical assistance provided for countries to meet standards.	Support appears to be insufficient.	Fish importing countries could re-orient AfT or tariff revenue to adaptation support.	Fish importing countries would need to reshape their tariff revenue use and AfT supply priorities. AfT donor and recipient countries would need to reshape their AfT demand priorities. The private sector has a leadership role in this recommendation. Private actors are well positioned to both improve access to certification schemes and assist producers and retailers to work towards bridging the gap between production realities and sourcing requirements (as conducted in FIPs).

Policy Option	Timescale	Current Status	Gap	Steps	Parties involved
13. Ensure coherence between private standards and the TBT Code on standards.	Medium Term	Some private standards may reflect TBT (Technical Barriers to Trade) principles	Some private standards may not reflect TBT principles	1) Encourage private sector standard-setters to follow the principles of the TBT Code of Good Practice on standards. 2) UNFSS and ITC standards platforms could focus on fisheries product standards.	1) Private sector standard-setters and certification bodies. 2) UNFSS and ITC Secretariats.
14. Link mutual recognition systems for standards applicable to fish products.	Long Term	National sanitary and phytosanitary (SPS) and TBT systems vary, and are applied inconsistently. TTIP, TPP considering mutual recognition (MR) provisions.	MR between large markets can exclude other producers and reduce their competitiveness, even if their countries' systems meet the standard. Transmissible mutual recognition built into RTAs is a novel approach.	Large regional trade agreements' MR systems should allow non-parties systems to achieve mutual recognition if they are recognized as meeting the required standard by any one of the parties to the RTA.	TPP, TTIP Parties.

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The experts all participated in their personal capacity. The views and recommendations expressed in the policy options paper are not attributable to any institution with which members of the E15 Expert Group are associated.



International Centre for Trade and Sustainable Development

The International Centre for Trade and Sustainable Development (ICTSD) is an independent think-and-do-tank, engaged in the provision of information, research and analysis, and policy and multistakeholder dialogue, as a not-for-profit organisation based in Geneva, Switzerland.

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